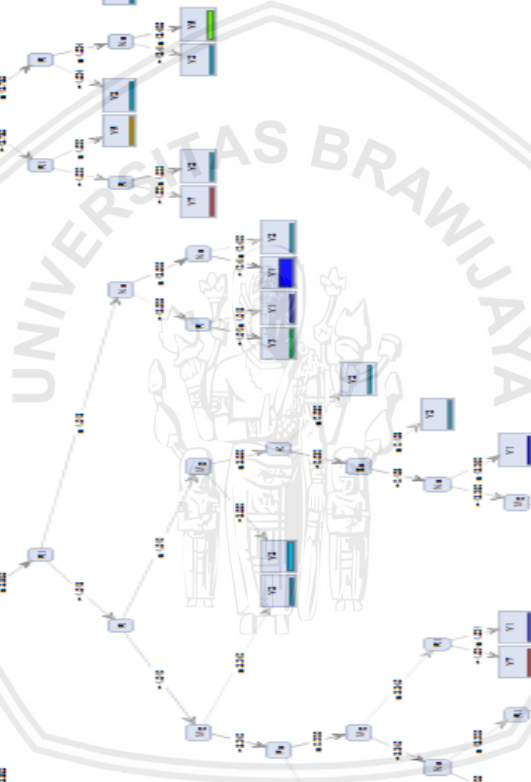
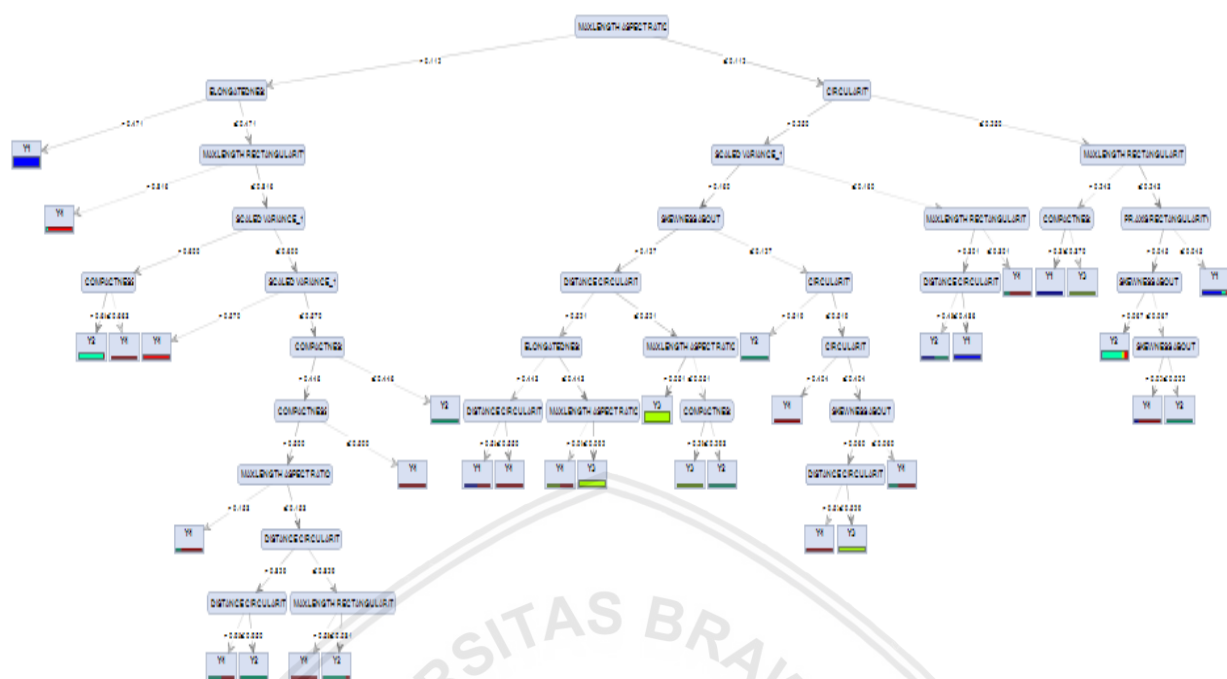


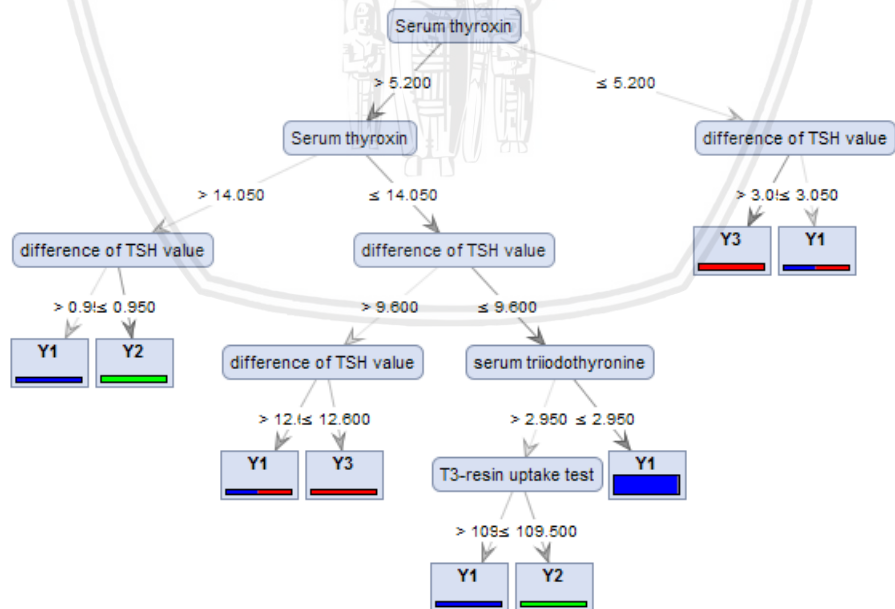


Gambar A-2 Model Pohon Keputusan DT ID3 Data Glass

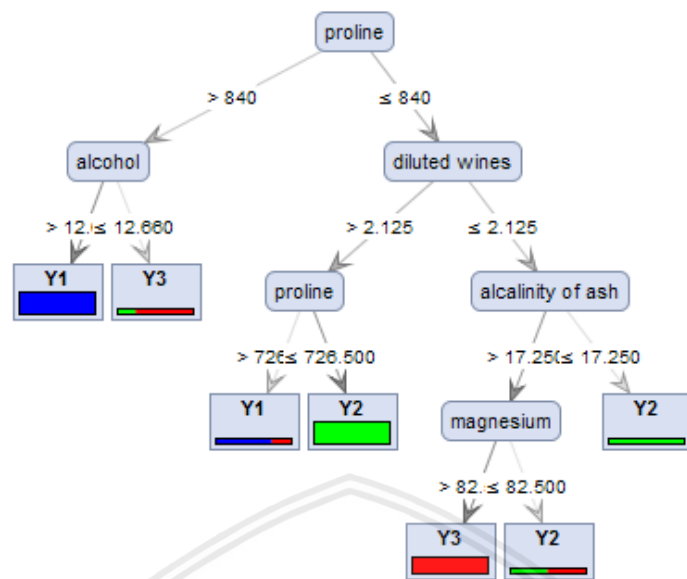




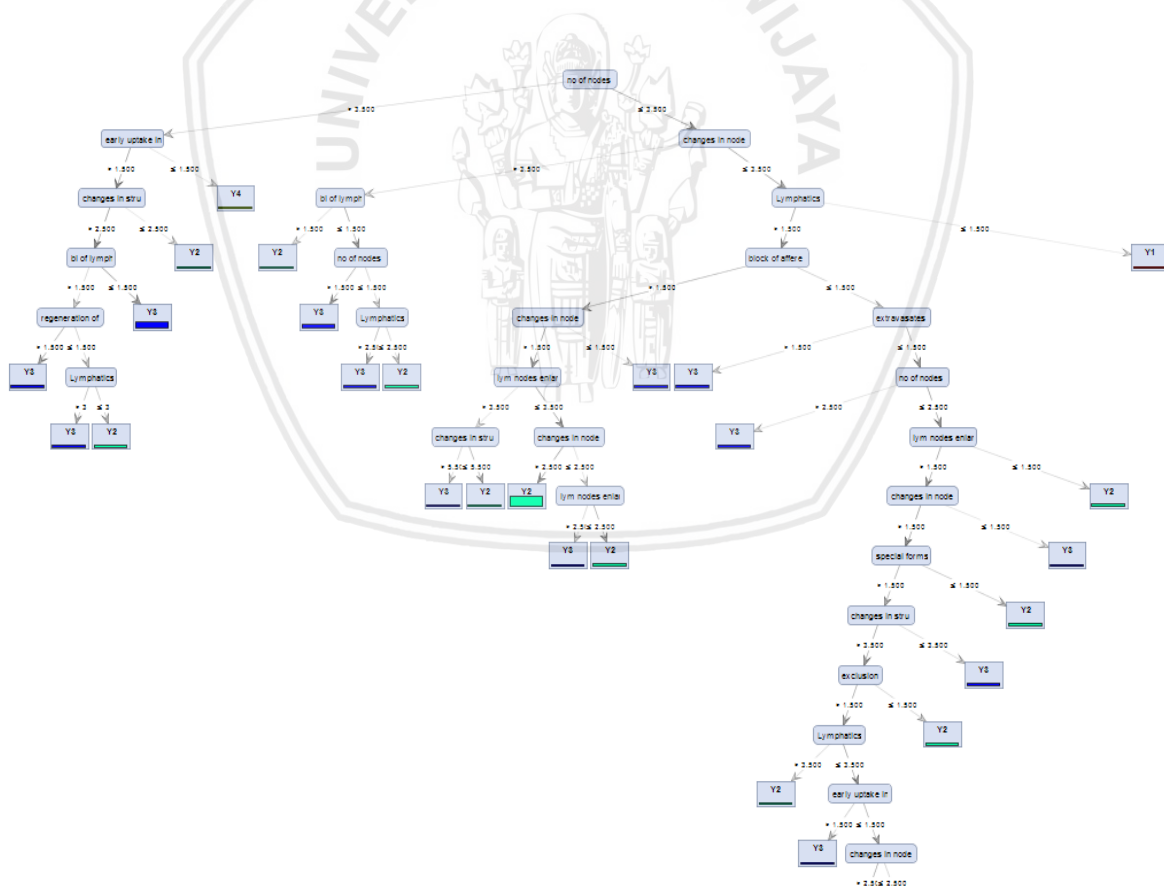
Gambar A-5 Model Pohon Keputusan csDT ID3 Data Vehicle



Gambar A-6 Model Pohon Keputusan csDT ID3 Data Thyroid



Gambar A-7 Model Pohon Keputusan csDT ID3 Data Wine



Gambar A-8 Model Pohon Keputusan DTC4.5 Data Lymphografi

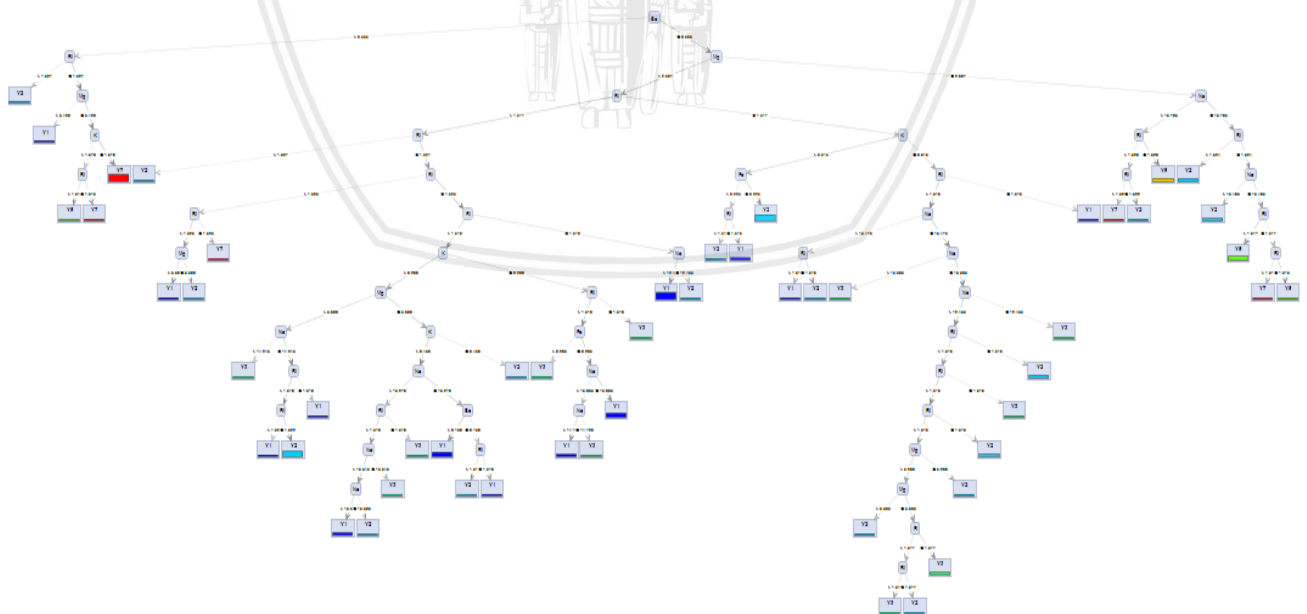
Tree

```

no of nodes > 3.500
|
| early uptake in > 1.500
| |
| | changes in stru > 2.500
| | |
| | | bi of lymph > 1.500
| | | |
| | | | regeneration of > 1.500: Y3 {Y3=4, Y2=0, Y4=0, Y1=0}
| | | | regeneration of ≤ 1.500
| | | | |
| | | | | Lymphatics > 3: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | Lymphatics ≤ 3: Y2 {Y3=0, Y2=1, Y4=0, Y1=0}
| | | | | bi of lymph ≤ 1.500: Y3 {Y3=22, Y2=0, Y4=0, Y1=0}
| | | | | changes in stru ≤ 2.500: Y2 {Y3=0, Y2=1, Y4=0, Y1=0}
| | | | | early uptake in ≤ 1.500: Y4 {Y3=0, Y2=0, Y4=2, Y1=0}
| |
| | early uptake in ≤ 1.500: Y4 {Y3=0, Y2=0, Y4=2, Y1=0}
|
no of nodes ≤ 3.500
|
| changes in node > 3.500
| |
| | bi of lymph > 1.500: Y2 {Y3=0, Y2=1, Y4=0, Y1=0}
| | bi of lymph ≤ 1.500
| | |
| | | no of nodes > 1.500: Y3 {Y3=9, Y2=0, Y4=0, Y1=0}
| | | no of nodes ≤ 1.500
| | | |
| | | | Lymphatics > 2.500: Y3 {Y3=2, Y2=0, Y4=0, Y1=0}
| | | | Lymphatics ≤ 2.500: Y2 {Y3=0, Y2=1, Y4=0, Y1=0}
|
| changes in node ≤ 3.500
| |
| | Lymphatics > 1.500
| | |
| | | block of affere > 1.500
| | | |
| | | | changes in node > 1.500
| | | | |
| | | | | lym nodes enlar > 3.500
| | | | | |
| | | | | | changes in stru > 5.500: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | | changes in stru ≤ 5.500: Y2 {Y3=0, Y2=2, Y4=0, Y1=0}
| | | | | | lym nodes enlar ≤ 3.500
| | | | | | |
| | | | | | | changes in node > 2.500: Y2 {Y3=0, Y2=48, Y4=0, Y1=0}
| | | | | | | changes in node ≤ 2.500
| | | | | | | |
| | | | | | | | lym nodes enlar > 2.500: Y3 {Y3=2, Y2=0, Y4=0, Y1=0}
| | | | | | | | lym nodes enlar ≤ 2.500: Y2 {Y3=0, Y2=6, Y4=0, Y1=0}
| | | | | | | | changes in node ≤ 1.500: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | |
| | | | | | block of affere ≤ 1.500
| | | | | | |
| | | | | | | extravasates > 1.500: Y3 {Y3=6, Y2=0, Y4=0, Y1=0}
| | | | | | | extravasates ≤ 1.500
| | | | | | | |
| | | | | | | | no of nodes > 2.500: Y3 {Y3=3, Y2=0, Y4=0, Y1=0}
| | | | | | | | no of nodes ≤ 2.500
| | | | | | | | |
| | | | | | | | | lym nodes enlar > 1.500
| | | | | | | | | |
| | | | | | | | | | changes in node > 1.500
| | | | | | | | | | |
| | | | | | | | | | | special forms > 1.500
| | | | | | | | | | | |
| | | | | | | | | | | | changes in stru > 3.500
| | | | | | | | | | | | |
| | | | | | | | | | | | | exclusion > 1.500
| | | | | | | | | | | | | |
| | | | | | | | | | | | | | Lymphatics > 3.500: Y2 {Y3=0, Y2=1, Y4=0, Y1=0}
| | | | | | | | | | | | | | Lymphatics ≤ 3.500
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | early uptake in > 1.500: Y3 {Y3=2, Y2=0, Y4=0, Y1=0}
| | | | | | | | | | | | | | | early uptake in ≤ 1.500
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | changes in node > 2.500: Y2 {Y3=0, Y2=3, Y4=0, Y1=0}
| | | | | | | | | | | | | | | | changes in node ≤ 2.500: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | exclusion ≤ 1.500: Y2 {Y3=0, Y2=2, Y4=0, Y1=0}
| | | | | | | | | | | | | | | | | changes in stru ≤ 3.500: Y3 {Y3=2, Y2=0, Y4=0, Y1=0}
| | | | | | | | | | | | | | | | | special forms ≤ 1.500: Y2 {Y3=0, Y2=7, Y4=0, Y1=0}
| | | | | | | | | | | | | | | | | changes in node ≤ 1.500: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | | | | | | | | | | | | | lym nodes enlar ≤ 1.500: Y2 {Y3=0, Y2=5, Y4=0, Y1=0}
| | | | | | | | | | | | | | | | | Lymphatics ≤ 1.500: Y1 {Y3=0, Y2=0, Y4=0, Y1=1}

```

Gambar A-9 Rule Pohon Keputusan DTC4.5 Data Lympografi



Gambar A-10 Model Pohon Keputusan DTC4.5 Data Glass

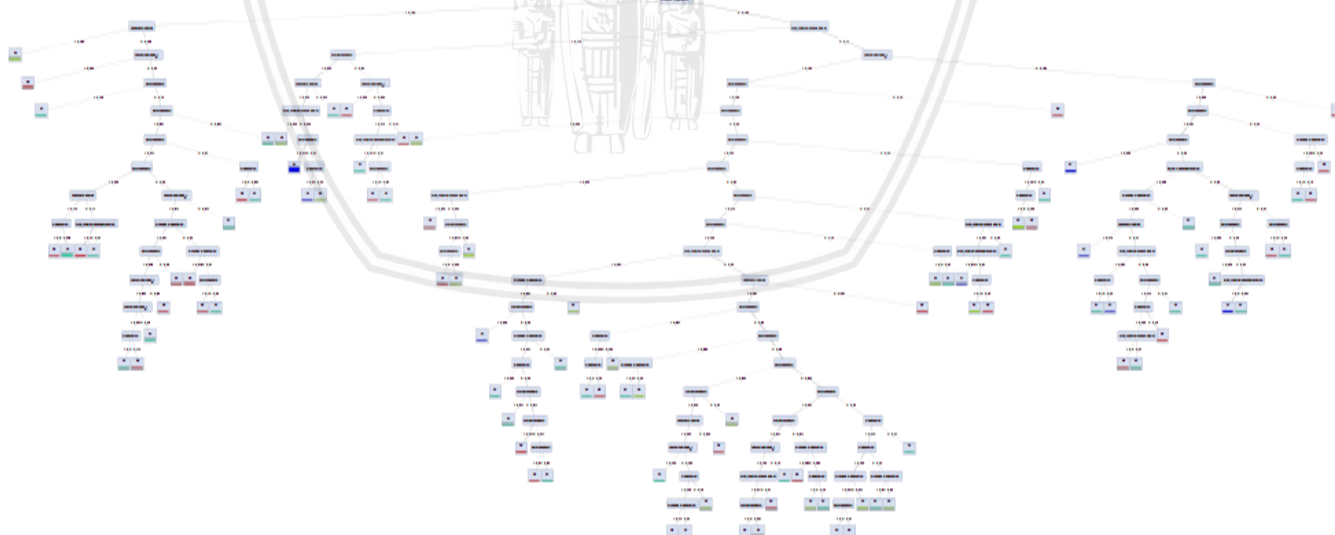
Tree

```

Ba > 0.335
|
|  RI > 1.527: Y2 {Y1=0, Y2=1, Y3=0, Y5=0, Y6=0, Y7=0}
|  RI ≤ 1.527
|  |  Mg > 3.420: Y1 {Y1=1, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  Mg ≤ 3.420
|  |  |  K > 1.570
|  |  |  RI > 1.513: Y5 {Y1=0, Y2=0, Y3=0, Y5=1, Y6=0, Y7=0}
|  |  |  RI ≤ 1.513: Y7 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=0, Y7=1}
|  |  |  K ≤ 1.570: Y7 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=0, Y7=25}
|  Ba ≤ 0.335
|  |  Mg > 2.697
|  |  |  RI > 1.517
|  |  |  RI > 1.527: Y2 {Y1=0, Y2=1, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  RI ≤ 1.527
|  |  |  |  RI > 1.523
|  |  |  |  RI > 1.523
|  |  |  |  |  Mg > 3.300: Y1 {Y1=2, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  Mg ≤ 3.300: Y2 {Y1=0, Y2=1, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  RI ≤ 1.523: Y7 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=0, Y7=1}
|  |  |  |  RI ≤ 1.523
|  |  |  |  |  RI > 1.518
|  |  |  |  |  K > 0.290
|  |  |  |  |  Mg > 3.600
|  |  |  |  |  Na > 14.245: Y3 {Y1=0, Y2=0, Y3=1, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  Na ≤ 14.245
|  |  |  |  |  |  RI > 1.518
|  |  |  |  |  |  RI > 1.522: Y1 {Y1=1, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  RI ≤ 1.522: Y2 {Y1=0, Y2=1, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  RI ≤ 1.518: Y1 {Y1=1, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  Mg ≤ 3.600
|  |  |  |  |  K > 0.430
|  |  |  |  |  Na > 13.270
|  |  |  |  |  RI > 1.518
|  |  |  |  |  RI > 1.516: Y1 {Y1=1, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  RI ≤ 1.516: Y2 {Y1=0, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  Na ≤ 13.475
|  |  |  |  |  Na > 13.385: Y3 {Y1=0, Y2=0, Y3=2, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  Na ≤ 13.385
|  |  |  |  |  Na > 12.455
|  |  |  |  |  |  RI > 1.516
|  |  |  |  |  |  RI > 1.516
|  |  |  |  |  |  RI > 1.516
|  |  |  |  |  |  Mg > 3.290
|  |  |  |  |  |  Mg > 3.595: Y2 {Y1=0, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  Mg ≤ 3.595
|  |  |  |  |  |  RI > 1.517
|  |  |  |  |  |  RI > 1.517: Y3 {Y1=0, Y2=0, Y3=1, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  RI ≤ 1.517: Y2 {Y1=0, Y2=1, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  RI ≤ 1.517: Y3 {Y1=0, Y2=0, Y3=3, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  Mg ≤ 3.290: Y2 {Y1=0, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  RI ≤ 1.516: Y2 {Y1=0, Y2=4, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  RI ≤ 1.516: Y3 {Y1=0, Y2=0, Y3=1, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  RI ≤ 1.516: Y2 {Y1=0, Y2=5, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  Na ≤ 12.455: Y3 {Y1=0, Y2=0, Y3=1, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  RI ≤ 1.516: Y1 {Y1=1, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  Mg ≤ 2.697
|  |  |  |  |  Na > 13.785
|  |  |  |  |  RI > 1.520
|  |  |  |  |  RI > 1.522: Y7 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=0, Y7=1}
|  |  |  |  |  RI ≤ 1.522: Y2 {Y1=0, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  RI ≤ 1.520: Y6 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=9, Y7=0}
|  |  |  |  |  Na ≤ 13.785
|  |  |  |  |  RI > 1.524: Y2 {Y1=0, Y2=6, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  RI ≤ 1.524
|  |  |  |  |  Na > 13.495: Y2 {Y1=0, Y2=4, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  Na ≤ 13.495
|  |  |  |  |  RI > 1.517: Y5 {Y1=0, Y2=0, Y3=0, Y5=10, Y6=0, Y7=0}

```

Gambar A-11 Rule Pohon Keputusan DTC4.5 Data Glass



Gambar A-12 Model Pohon Keputusan DTC4.5 Data Vehicle

Tree

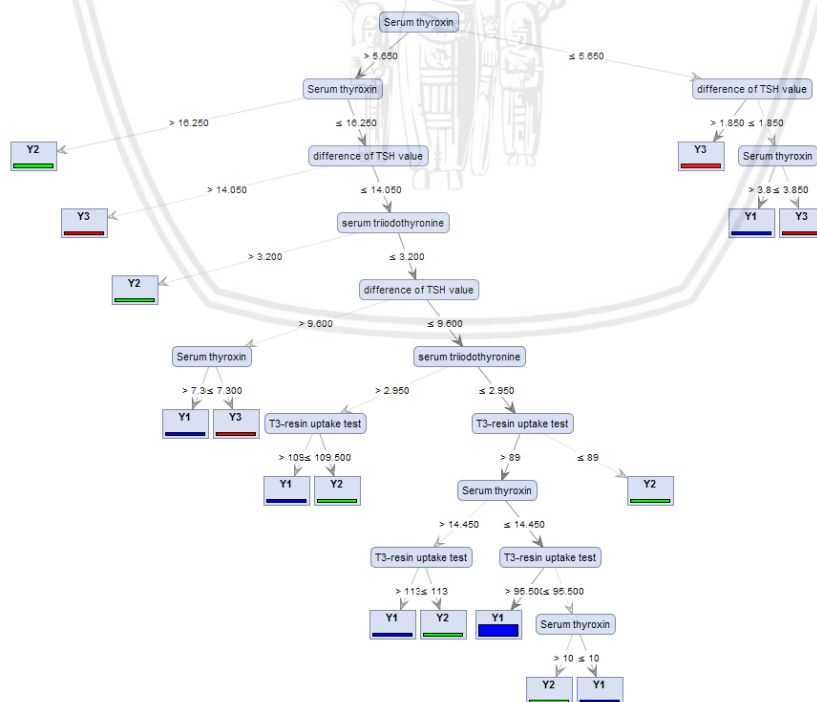
```

DISTANCE CIRCULARITY > 0.793
| SKENNESS ABOUT > 0.246: Y3 {Y1=0, Y2=0, Y3=12, Y4=0}
| SKENNESS ABOUT ≤ 0.246
| | SCALED VARIANCE_1 > 0.660: Y4 {Y1=0, Y2=0, Y3=0, Y4=10}
| | SCALED VARIANCE_1 ≤ 0.660
| | | COMPACTNESS > 0.793: Y2 {Y1=0, Y2=5, Y3=0, Y4=0}
| | | COMPACTNESS ≤ 0.793
| | | | COMPACTNESS > 0.457
| | | | COMPACTNESS ≤ 0.511
| | | | | COMPACTNESS > 0.663
| | | | | SKENNESS ABOUT > 0.112
| | | | | CIRCULARITY > 0.904: Y4 {Y1=0, Y2=0, Y3=0, Y4=2}
| | | | | CIRCULARITY ≤ 0.904: Y2 {Y1=0, Y2=20, Y3=0, Y4=0}
| | | | | SKENNESS ABOUT ≤ 0.112
| | | | | MAX.LENGTH RECTANGULARITY > 0.574: Y4 {Y1=0, Y2=0, Y3=0, Y4=9}
| | | | | MAX.LENGTH RECTANGULARITY ≤ 0.574: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
| | | | | COMPACTNESS ≤ 0.663
| | | | | SCALED VARIANCE_1 > 0.411
| | | | | DISTANCE CIRCULARITY > 0.907
| | | | | COMPACTNESS > 0.554
| | | | | SCALED VARIANCE_1 > 0.482
| | | | | SCALED VARIANCE_1 ≤ 0.560
| | | | | | CIRCULARITY > 0.712: Y2 {Y1=0, Y2=2, Y3=0, Y4=0}
| | | | | | CIRCULARITY ≤ 0.712: Y4 {Y1=0, Y2=0, Y3=0, Y4=2}
| | | | | | SCALED VARIANCE_1 ≤ 0.560: Y2 {Y1=0, Y2=6, Y3=0, Y4=0}
| | | | | | SCALED VARIANCE_1 ≤ 0.482: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
| | | | | | COMPACTNESS ≤ 0.554: Y4 {Y1=0, Y2=0, Y3=0, Y4=2}
| | | | | DISTANCE CIRCULARITY ≤ 0.907
| | | | | DISTANCE CIRCULARITY > 0.814: Y4 {Y1=0, Y2=0, Y3=0, Y4=10}
| | | | | DISTANCE CIRCULARITY ≤ 0.814
| | | | | | COMPACTNESS > 0.565: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
| | | | | | COMPACTNESS ≤ 0.565: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
| | | | | SCALED VARIANCE_1 ≤ 0.411: Y2 {Y1=0, Y2=3, Y3=0, Y4=0}
| | | | COMPACTNESS ≤ 0.511

SCALED VARIANCE_1 ≤ 0.145
| COMPACTNESS > 0.098
| | COMPACTNESS > 0.207
| | | COMPACTNESS > 0.380: Y1 {Y1=16, Y2=0, Y3=0, Y4=0}
| | | COMPACTNESS ≤ 0.380
| | | | PR.AXIS RECTANGULARITY > 0.045
| | | | DISTANCE CIRCULARITY > 0.350
| | | | SKENNESS ABOUT > 0.216: Y1 {Y1=2, Y2=0, Y3=0, Y4=0}
| | | | SKENNESS ABOUT ≤ 0.216
| | | | | MAX.LENGTH ASPECT RATIO > 0.092
| | | | | CIRCULARITY > 0.250: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
| | | | | CIRCULARITY ≤ 0.250: Y1 {Y1=2, Y2=0, Y3=0, Y4=0}
| | | | | MAX.LENGTH ASPECT RATIO ≤ 0.092
| | | | | COMPACTNESS > 0.272
| | | | | CIRCULARITY > 0.288
| | | | | | MAX.LENGTH ASPECT RATIO > 0.071: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
| | | | | | MAX.LENGTH ASPECT RATIO ≤ 0.071: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
| | | | | | CIRCULARITY ≤ 0.288: Y4 {Y1=0, Y2=0, Y3=0, Y4=3}
| | | | | COMPACTNESS ≤ 0.272: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
| | | | DISTANCE CIRCULARITY ≤ 0.350: Y2 {Y1=0, Y2=6, Y3=0, Y4=0}
| | | PR.AXIS RECTANGULARITY ≤ 0.045
| | SCALED VARIANCE_1 > 0.012
| | | COMPACTNESS > 0.359: Y2 {Y1=0, Y2=2, Y3=0, Y4=0}
| | | COMPACTNESS ≤ 0.359
| | | | ELONGATEDNESS > 0.929: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
| | | | ELONGATEDNESS ≤ 0.929
| | | | | MAX.LENGTH RECTANGULARITY > 0.051: Y1 {Y1=14, Y2=0, Y3=0, Y4=0}
| | | | | MAX.LENGTH RECTANGULARITY ≤ 0.051: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
| | | SCALED VARIANCE_1 ≤ 0.012
| | | | COMPACTNESS > 0.293: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
| | | | COMPACTNESS ≤ 0.293: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
| | COMPACTNESS ≤ 0.207
| | | DISTANCE CIRCULARITY > 0.257
| | | | CIRCULARITY > 0.135: Y2 {Y1=0, Y2=3, Y3=0, Y4=0}
| | | | CIRCULARITY ≤ 0.135: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
| | | DISTANCE CIRCULARITY ≤ 0.257: Y4 {Y1=0, Y2=0, Y3=0, Y4=2}
| COMPACTNESS ≤ 0.098: Y4 {Y1=0, Y2=0, Y3=0, Y4=2}

```

Gambar A-13 Rule Pohon Keputusan DTC4.5 Data Vehicle



Gambar A-14 Model Pohon Keputusan DTC4.5 Data Thyroid

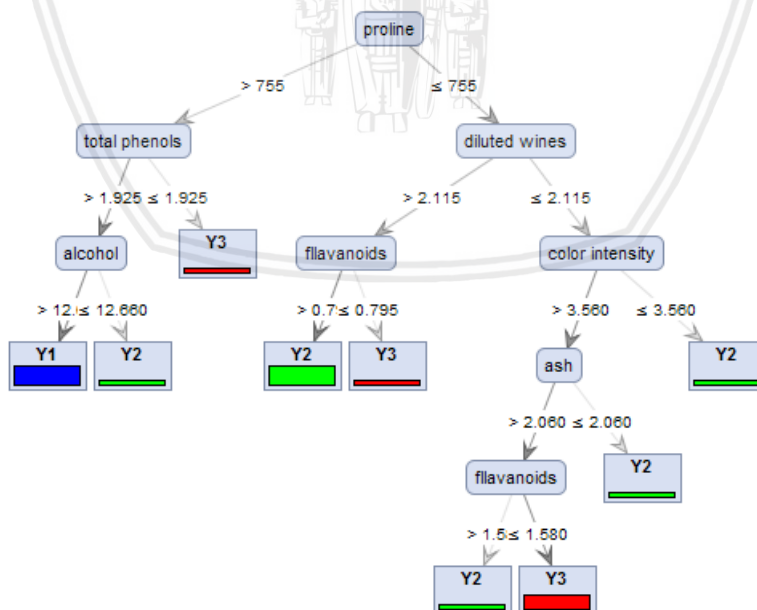
Tree

```

Serum thyroxin > 5.650
| Serum thyroxin > 16.250: Y2 {Y1=0, Y2=22, Y3=0}
| Serum thyroxin ≤ 16.250
| | difference of TSH value > 14.050: Y3 {Y1=0, Y2=0, Y3=2}
| | difference of TSH value ≤ 14.050
| | | serum triiodothyronine > 3.200: Y2 {Y1=0, Y2=5, Y3=0}
| | | serum triiodothyronine ≤ 3.200
| | | | difference of TSH value > 9.600
| | | | Serum thyroxin > 7.300: Y1 {Y1=1, Y2=0, Y3=0}
| | | | Serum thyroxin ≤ 7.300: Y3 {Y1=0, Y2=0, Y3=1}
| | | | difference of TSH value ≤ 9.600
| | | | serum triiodothyronine > 2.950
| | | | | T3-resin uptake test > 109.500: Y1 {Y1=1, Y2=0, Y3=0}
| | | | | T3-resin uptake test ≤ 109.500: Y2 {Y1=0, Y2=2, Y3=0}
| | | | serum triiodothyronine ≤ 2.950
| | | | | T3-resin uptake test > 89
| | | | | Serum thyroxin > 14.450
| | | | | | T3-resin uptake test > 113: Y1 {Y1=2, Y2=0, Y3=0}
| | | | | | T3-resin uptake test ≤ 113: Y2 {Y1=0, Y2=3, Y3=0}
| | | | | Serum thyroxin ≤ 14.450
| | | | | | T3-resin uptake test > 95.500: Y1 {Y1=140, Y2=0, Y3=0}
| | | | | | T3-resin uptake test ≤ 95.500
| | | | | | Serum thyroxin > 10: Y2 {Y1=0, Y2=2, Y3=0}
| | | | | | Serum thyroxin ≤ 10: Y1 {Y1=4, Y2=0, Y3=0}
| | | | | T3-resin uptake test ≤ 89: Y2 {Y1=0, Y2=1, Y3=0}
Serum thyroxin ≤ 5.650
| difference of TSH value > 1.850: Y3 {Y1=0, Y2=0, Y3=26}
| difference of TSH value ≤ 1.850
| | Serum thyroxin > 3.850: Y1 {Y1=2, Y2=0, Y3=0}
| | Serum thyroxin ≤ 3.850: Y3 {Y1=0, Y2=0, Y3=1}

```

Gambar A-15 Rule Pohon Keputusan DTC4.5 Data Thyroid



Gambar A-16 Model Pohon Keputusan DTC4.5 Data Wine

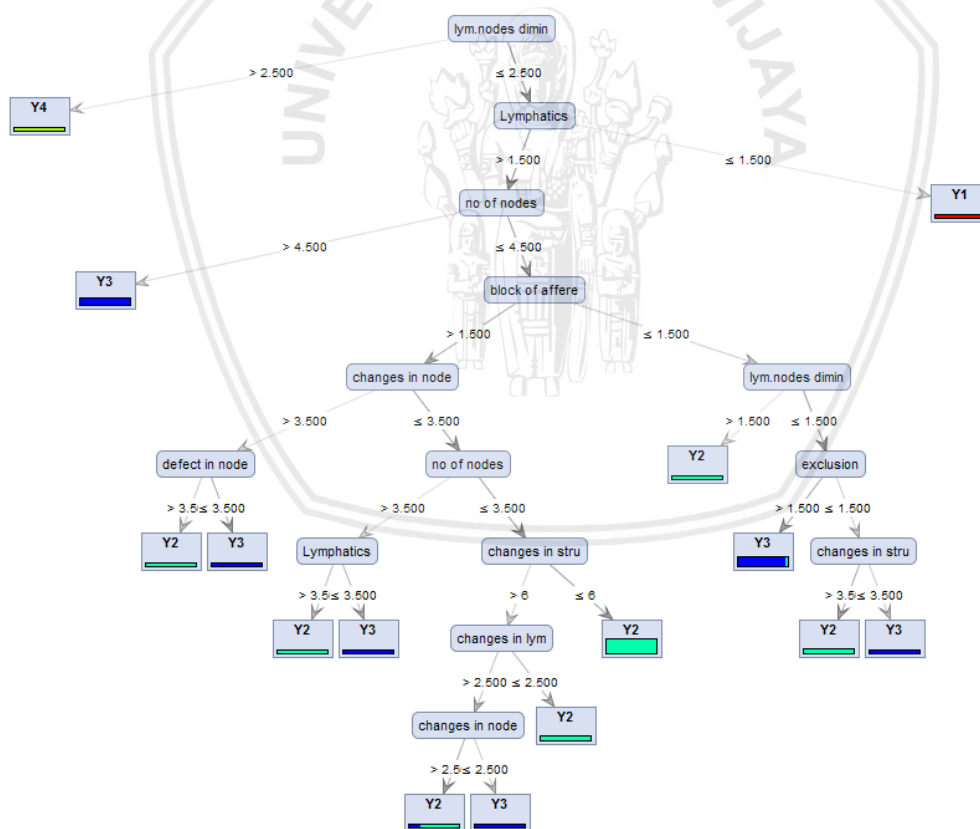
Tree

```

proline > 755
|   total phenols > 1.925
|   |   alcohol > 12.660: Y1 {Y1=57, Y2=0, Y3=0}
|   |   alcohol ≤ 12.660: Y2 {Y1=0, Y2=1, Y3=0}
|   total phenols ≤ 1.925: Y3 {Y1=0, Y2=0, Y3=5}
proline ≤ 755
|   diluted wines > 2.115
|   |   flavanoids > 0.795: Y2 {Y1=0, Y2=61, Y3=0}
|   |   flavanoids ≤ 0.795: Y3 {Y1=0, Y2=0, Y3=2}
|   diluted wines ≤ 2.115
|   |   color intensity > 3.560
|   |   |   ash > 2.060
|   |   |   |   flavanoids > 1.580: Y2 {Y1=0, Y2=1, Y3=0}
|   |   |   |   flavanoids ≤ 1.580: Y3 {Y1=0, Y2=0, Y3=37}
|   |   |   ash ≤ 2.060: Y2 {Y1=0, Y2=1, Y3=0}
|   |   color intensity ≤ 3.560: Y2 {Y1=0, Y2=3, Y3=0}

```

Gambar A-17 Rule Pohon Keputusan DTC4.5 Data Wine

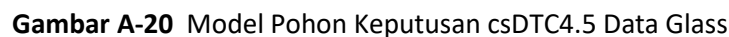


Gambar A-18 Model Pohon Keputusan csDTC4.5 Data Lymphografi

```

lym.nodes dimin > 2.500: Y4 {Y3=0, Y2=0, Y4=3, Y1=0}
lym.nodes dimin ≤ 2.500
|   Lymphatics > 1.500
|   |   no of nodes > 4.500: Y3 {Y3=17, Y2=0, Y4=0, Y1=0}
|   |   no of nodes ≤ 4.500
|   |   |   block of affere > 1.500
|   |   |   |   changes in node > 3.500
|   |   |   |   |   defect in node > 3.500: Y2 {Y3=0, Y2=2, Y4=0, Y1=0}
|   |   |   |   |   defect in node ≤ 3.500: Y3 {Y3=5, Y2=0, Y4=0, Y1=0}
|   |   |   |   changes in node ≤ 3.500
|   |   |   |   |   no of nodes > 3.500
|   |   |   |   |   |   Lymphatics > 3.500: Y2 {Y3=0, Y2=3, Y4=0, Y1=0}
|   |   |   |   |   |   Lymphatics ≤ 3.500: Y3 {Y3=4, Y2=0, Y4=0, Y1=0}
|   |   |   |   |   no of nodes ≤ 3.500
|   |   |   |   |   |   changes in stru > 6
|   |   |   |   |   |   |   changes in lym > 2.500
|   |   |   |   |   |   |   |   changes in node > 2.500: Y2 {Y3=1, Y2=3, Y4=0, Y1=0}
|   |   |   |   |   |   |   |   changes in node ≤ 2.500: Y3 {Y3=2, Y2=0, Y4=0, Y1=0}
|   |   |   |   |   |   |   |   changes in lym ≤ 2.500: Y2 {Y3=0, Y2=8, Y4=0, Y1=0}
|   |   |   |   |   |   |   |   changes in stru ≤ 6: Y2 {Y3=0, Y2=51, Y4=0, Y1=0}
|   |   |   |   block of affere ≤ 1.500
|   |   |   |   |   lym.nodes dimin > 1.500: Y2 {Y3=0, Y2=2, Y4=0, Y1=0}
|   |   |   |   |   lym.nodes dimin ≤ 1.500
|   |   |   |   |   |   exclusion > 1.500: Y3 {Y3=25, Y2=1, Y4=0, Y1=0}
|   |   |   |   |   |   exclusion ≤ 1.500
|   |   |   |   |   |   |   changes in stru > 3.500: Y2 {Y3=0, Y2=6, Y4=0, Y1=0}
|   |   |   |   |   |   |   changes in stru ≤ 3.500: Y3 {Y3=3, Y2=0, Y4=0, Y1=0}
|   |   |   |   Lymphatics ≤ 1.500: Y1 {Y3=0, Y2=0, Y4=0, Y1=2}

```



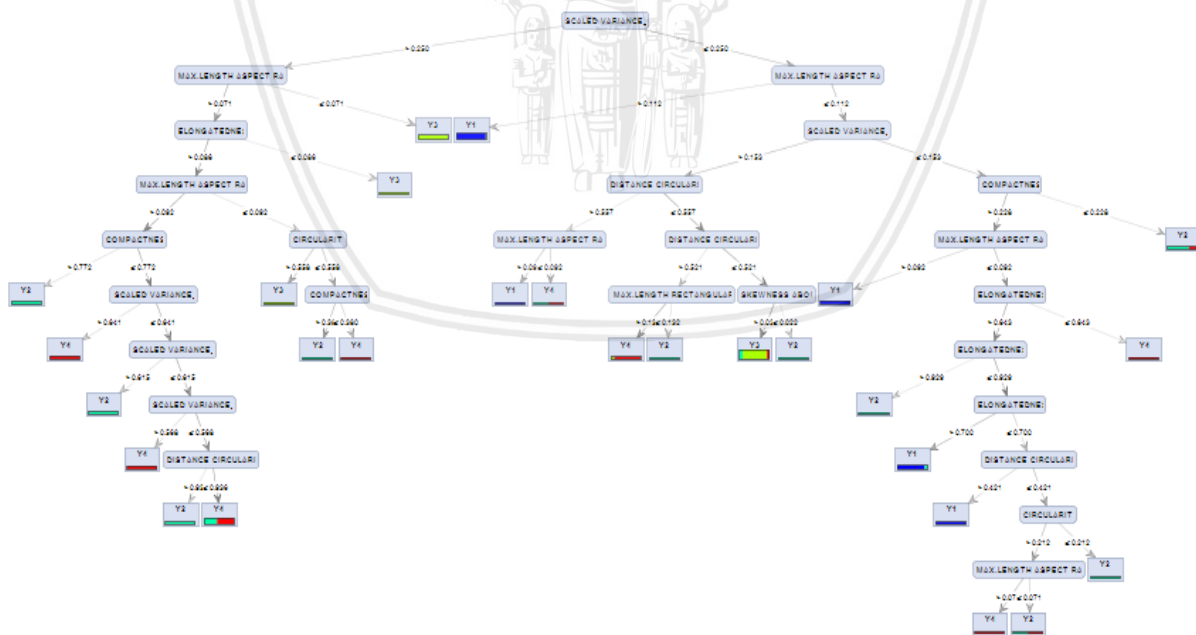
Gambar A-20 Model Pohon Keputusan csDTC4.5 Data Glass

[illegible]

```
=0, Y3=2, Y5=0, Y6=0, Y7=0}

Y1=17, Y2=0, Y3=1, Y5=0, Y6=0, Y7=0}

Y2 {Y1=0, Y2=3, Y3=0, Y5=0, Y6=0, Y7=0}
Y1 {Y1=4, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
Y3=2, Y5=0, Y6=0, Y7=0}
1, Y5=0, Y6=0, Y7=0}
```



Gambar A-22 Model Pohon Keputusan csDTC4.5 Data Vehicle

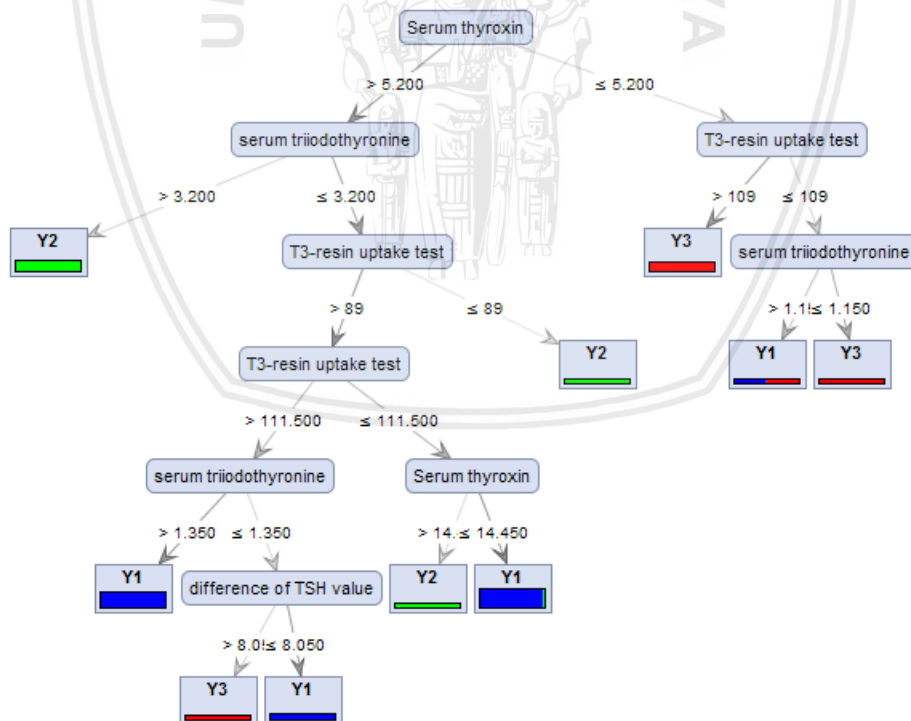
Tree

```

SCALED VARIANCE_1 > 0.250
| MAX.LENGTH ASPECT RATIO > 0.071
| | ELONGATEDNESS > 0.086
| | | MAX.LENGTH ASPECT RATIO > 0.092
| | | | COMPACTNESS > 0.772: Y2 {Y1=0, Y2=12, Y3=0, Y4=0}
| | | | COMPACTNESS ≤ 0.772
| | | | | SCALED VARIANCE_1 > 0.641: Y4 {Y1=0, Y2=0, Y3=0, Y4=14}
| | | | | SCALED VARIANCE_1 ≤ 0.641
| | | | | SCALED VARIANCE_1 > 0.615: Y2 {Y1=0, Y2=9, Y3=0, Y4=0}
| | | | | SCALED VARIANCE_1 ≤ 0.615
| | | | | | SCALED VARIANCE_1 > 0.568: Y4 {Y1=0, Y2=0, Y3=0, Y4=13}
| | | | | | SCALED VARIANCE_1 ≤ 0.568
| | | | | | | DISTANCE CIRCULARITY > 0.936: Y2 {Y1=0, Y2=5, Y3=0, Y4=0}
| | | | | | | DISTANCE CIRCULARITY ≤ 0.936: Y4 {Y1=0, Y2=21, Y3=0, Y4=27}
| | | | MAX.LENGTH ASPECT RATIO ≤ 0.092
| | | | | CIRCULARITY > 0.558: Y3 {Y1=0, Y2=0, Y3=5, Y4=0}
| | | | | CIRCULARITY ≤ 0.558
| | | | | | COMPACTNESS > 0.380: Y2 {Y1=0, Y2=4, Y3=0, Y4=0}
| | | | | | COMPACTNESS ≤ 0.380: Y4 {Y1=0, Y2=0, Y3=0, Y4=2}
| | | | ELONGATEDNESS ≤ 0.086: Y3 {Y1=0, Y2=0, Y3=5, Y4=0}
| | MAX.LENGTH ASPECT RATIO ≤ 0.071: Y3 {Y1=0, Y2=0, Y3=30, Y4=0}
SCALED VARIANCE_1 ≤ 0.250
| MAX.LENGTH ASPECT RATIO > 0.112: Y1 {Y1=51, Y2=0, Y3=1, Y4=0}
| MAX.LENGTH ASPECT RATIO ≤ 0.112
| | SCALED VARIANCE_1 > 0.153
| | | DISTANCE CIRCULARITY > 0.557
| | | | MAX.LENGTH ASPECT RATIO > 0.092: Y1 {Y1=2, Y2=0, Y3=0, Y4=0}
| | | | MAX.LENGTH ASPECT RATIO ≤ 0.092: Y4 {Y1=0, Y2=1, Y3=0, Y4=1}
| | | | DISTANCE CIRCULARITY ≤ 0.557
| | | | | DISTANCE CIRCULARITY > 0.521
| | | | | MAX.LENGTH RECTANGULARITY > 0.132: Y4 {Y1=0, Y2=0, Y3=1, Y4=7}
| | | | | MAX.LENGTH RECTANGULARITY ≤ 0.132: Y2 {Y1=0, Y2=2, Y3=0, Y4=0}
| | | | | DISTANCE CIRCULARITY ≤ 0.521
| | | | | | SKEWNESS ABOUT > 0.022: Y3 {Y1=0, Y2=10, Y3=74, Y4=7}
| | | | | | SKEWNESS ABOUT ≤ 0.022: Y2 {Y1=0, Y2=3, Y3=0, Y4=0}
| | SCALED VARIANCE_1 ≤ 0.153
| | | COMPACTNESS > 0.228
| | | | MAX.LENGTH ASPECT RATIO > 0.092: Y1 {Y1=19, Y2=0, Y3=0, Y4=0}
| | | | MAX.LENGTH ASPECT RATIO ≤ 0.092
| | | | | ELONGATEDNESS > 0.643
| | | | | | ELONGATEDNESS > 0.929: Y2 {Y1=0, Y2=2, Y3=0, Y4=0}
| | | | | | ELONGATEDNESS ≤ 0.929
| | | | | | | ELONGATEDNESS > 0.700: Y1 {Y1=20, Y2=2, Y3=0, Y4=0}
| | | | | | | ELONGATEDNESS ≤ 0.700
| | | | | | | DISTANCE CIRCULARITY > 0.421: Y1 {Y1=4, Y2=0, Y3=0, Y4=0}
| | | | | | | DISTANCE CIRCULARITY ≤ 0.421
| | | | | | | | CIRCULARITY > 0.212
| | | | | | | | MAX.LENGTH ASPECT RATIO > 0.071: Y4 {Y1=0, Y2=0, Y3=0, Y4=3}
| | | | | | | | MAX.LENGTH ASPECT RATIO ≤ 0.071: Y2 {Y1=0, Y2=1, Y3=0, Y4=1}
| | | | | | | | CIRCULARITY ≤ 0.212: Y2 {Y1=0, Y2=3, Y3=0, Y4=0}
| | | | | ELONGATEDNESS ≤ 0.643: Y4 {Y1=0, Y2=0, Y3=0, Y4=3}
| | COMPACTNESS ≤ 0.228: Y2 {Y1=0, Y2=8, Y3=0, Y4=3}

```

Gambar A-23 Rule Pohon Keputusan csDTC4.5 Data Vehicle



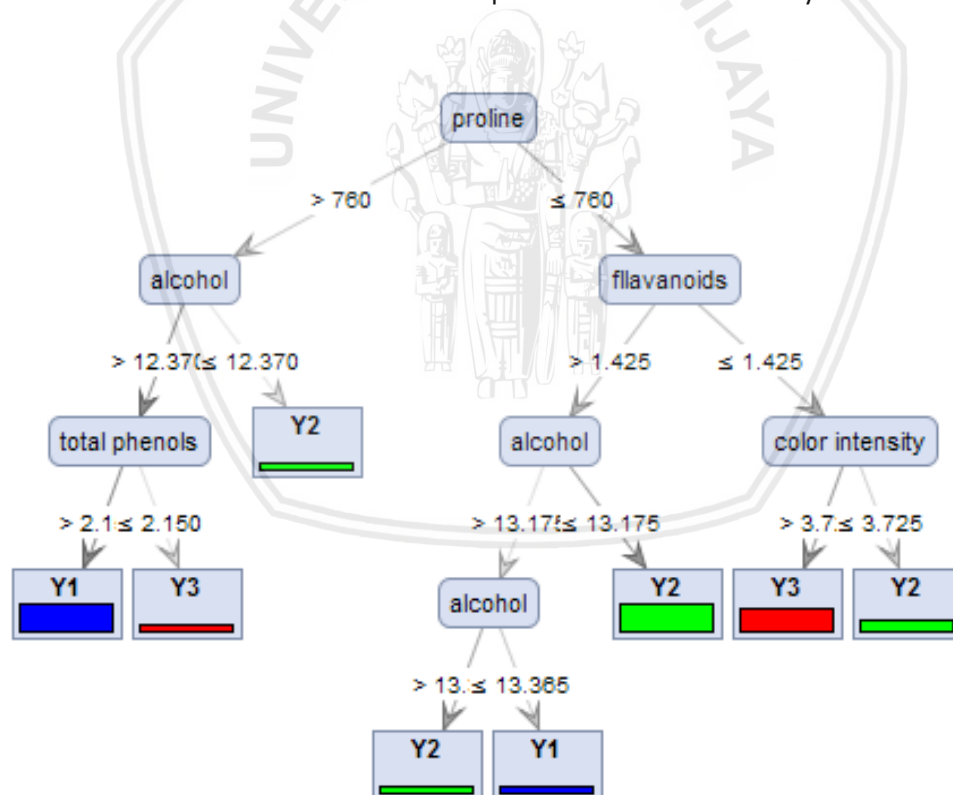
Gambar A-24 Model Pohon Keputusan csDTC4.5 Data Thyroid

Tree

```

Serum thyroxin > 5.200
|  serum triiodothyronine > 3.200: Y2 {Y1=0, Y2=31, Y3=0}
|  serum triiodothyronine ≤ 3.200
|  |  T3-resin uptake test > 89
|  |  |  T3-resin uptake test > 111.500
|  |  |  |  serum triiodothyronine > 1.350: Y1 {Y1=57, Y2=0, Y3=0}
|  |  |  |  serum triiodothyronine ≤ 1.350
|  |  |  |  |  difference of TSH value > 8.050: Y3 {Y1=0, Y2=0, Y3=2}
|  |  |  |  |  difference of TSH value ≤ 8.050: Y1 {Y1=10, Y2=0, Y3=0}
|  |  |  |  T3-resin uptake test ≤ 111.500
|  |  |  |  |  Serum thyroxin > 14.450: Y2 {Y1=0, Y2=6, Y3=0}
|  |  |  |  |  Serum thyroxin ≤ 14.450: Y1 {Y1=75, Y2=2, Y3=0}
|  |  |  T3-resin uptake test ≤ 89: Y2 {Y1=0, Y2=2, Y3=0}
Serum thyroxin ≤ 5.200
|  T3-resin uptake test > 109: Y3 {Y1=0, Y2=0, Y3=25}
|  T3-resin uptake test ≤ 109
|  |  serum triiodothyronine > 1.150: Y1 {Y1=1, Y2=0, Y3=1}
|  |  serum triiodothyronine ≤ 1.150: Y3 {Y1=0, Y2=0, Y3=3}
  
```

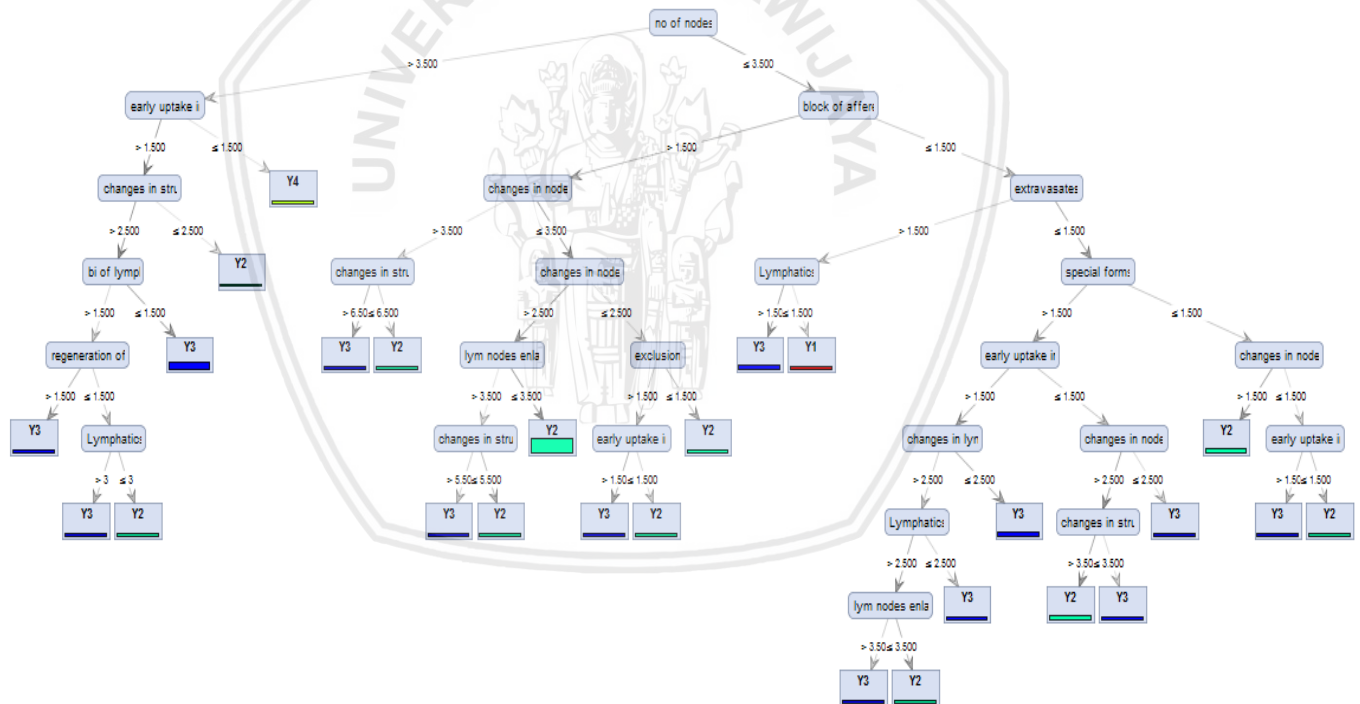
Gambar A-25 Rule Pohon Keputusan csDTC4.5 Data Thyroid



Gambar A-26 Model Pohon Keputusan csDTC4.5 Data Wine

```
proline > 760
|   alcohol > 12.370
|   |   total phenols > 2.150: Y1 {Y1=57, Y2=0, Y3=0}
|   |   total phenols ≤ 2.150: Y3 {Y1=0, Y2=0, Y3=4}
|   alcohol ≤ 12.370: Y2 {Y1=0, Y2=2, Y3=0}
proline ≤ 760
|   fllavanoids > 1.425
|   |   alcohol > 13.175
|   |   |   alcohol > 13.365: Y2 {Y1=0, Y2=4, Y3=0}
|   |   |   alcohol ≤ 13.365: Y1 {Y1=2, Y2=0, Y3=0}
|   |   alcohol ≤ 13.175: Y2 {Y1=0, Y2=54, Y3=0}
|   fllavanoids ≤ 1.425
|   |   color intensity > 3.725: Y3 {Y1=0, Y2=0, Y3=43}
|   |   color intensity ≤ 3.725: Y2 {Y1=0, Y2=12, Y3=0}
```

Gambar A-27 Rule Pohon Keputusan csDTC4.5 Data Wine



Gambar A-28 Model Pohon Keputusan DTC5.0 Data Lymphografi

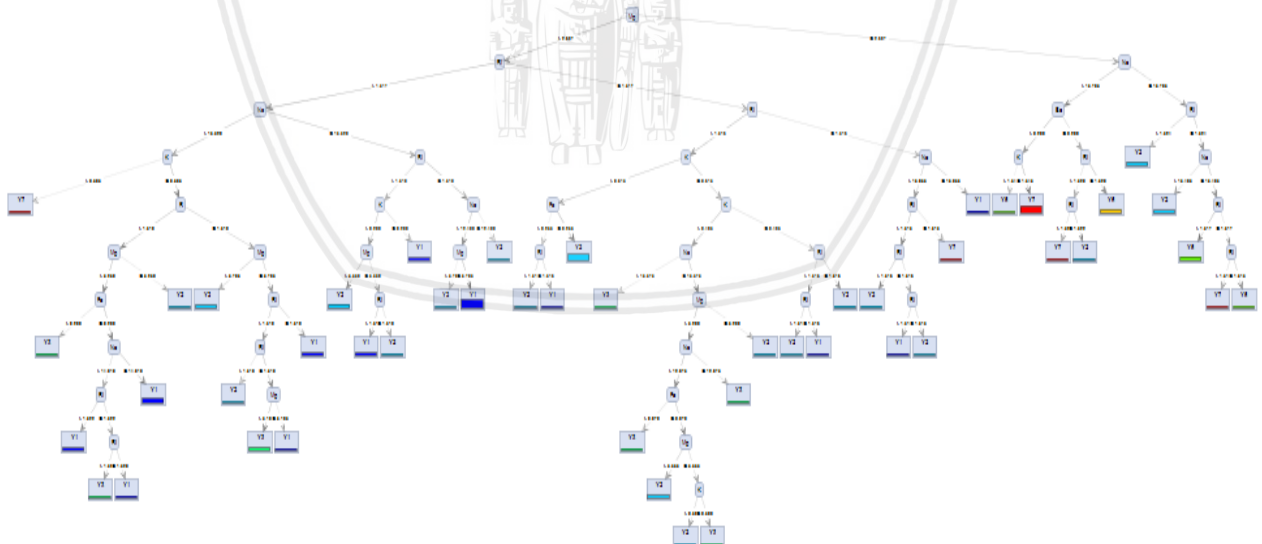
Tree

```

no of nodes > 3.500
| early uptake in > 1.500
| | changes in stru > 2.500
| | | bi of lymph > 1.500
| | | | regeneration of > 1.500: Y3 {Y3=4, Y2=0, Y4=0, Y1=0}
| | | | regeneration of ≤ 1.500
| | | | | Lymphatics > 3: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | Lymphatics ≤ 3: Y2 {Y3=0, Y2=1, Y4=0, Y1=0}
| | | | | bi of lymph ≤ 1.500: Y3 {Y3=22, Y2=0, Y4=0, Y1=0}
| | | | changes in stru ≤ 2.500: Y2 {Y3=0, Y2=1, Y4=0, Y1=0}
| | early uptake in ≤ 1.500: Y4 {Y3=0, Y2=0, Y4=2, Y1=0}
no of nodes ≤ 3.500
| block of affere > 1.500
| | changes in node > 3.500
| | | changes in stru > 6.500: Y3 {Y3=4, Y2=0, Y4=0, Y1=0}
| | | changes in stru ≤ 6.500: Y2 {Y3=0, Y2=2, Y4=0, Y1=0}
| | changes in node ≤ 3.500
| | | changes in node > 2.500
| | | | lym nodes enlar > 3.500
| | | | | changes in stru > 5.500: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | changes in stru ≤ 5.500: Y2 {Y3=0, Y2=2, Y4=0, Y1=0}
| | | | | lym nodes enlar ≤ 3.500: Y2 {Y3=0, Y2=48, Y4=0, Y1=0}
| | | changes in node ≤ 2.500
| | | | exclusion > 1.500
| | | | | early uptake in > 1.500: Y3 {Y3=3, Y2=0, Y4=0, Y1=0}
| | | | | early uptake in ≤ 1.500: Y2 {Y3=0, Y2=1, Y4=0, Y1=0}
| | | | exclusion ≤ 1.500: Y2 {Y3=0, Y2=5, Y4=0, Y1=0}
| | | special forms > 1.500
| | | | early uptake in > 1.500
| | | | | changes in lym > 2.500
| | | | | | Lymphatics > 2.500
| | | | | | | lym nodes enlar > 3.500: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | | | lym nodes enlar ≤ 3.500: Y2 {Y3=0, Y2=2, Y4=0, Y1=0}
| | | | | | | Lymphatics ≤ 2.500: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | | | changes in lym ≤ 2.500: Y3 {Y3=8, Y2=0, Y4=0, Y1=0}
| | | | | early uptake in ≤ 1.500
| | | | | | changes in node > 2.500
| | | | | | | changes in stru > 3.500: Y2 {Y3=0, Y2=5, Y4=0, Y1=0}
| | | | | | | changes in stru ≤ 3.500: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | | | changes in node ≤ 2.500: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | special forms ≤ 1.500
| | | | | changes in node > 1.500: Y2 {Y3=0, Y2=10, Y4=0, Y1=0}
| | | | | changes in node ≤ 1.500
| | | | | | early uptake in > 1.500: Y3 {Y3=1, Y2=0, Y4=0, Y1=0}
| | | | | | early uptake in ≤ 1.500: Y2 {Y3=0, Y2=1, Y4=0, Y1=0}

```

Gambar A-29 Rule Pohon Keputusan DTC5.0 Data Lympografi



Gambar A-30 Model Pohon Keputusan DT C5.0 Data Glass

Tree

```

Mg > 2.697
|
|   RI > 1.517
|   |
|   |   Na > 13.320
|   |   |
|   |   |   K > 0.595: Y7 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=0, Y7=2}
|   |   |   K ≤ 0.595
|   |   |   |
|   |   |   |   RI > 1.519
|   |   |   |   |
|   |   |   |   |   Mg > 3.250
|   |   |   |   |   |
|   |   |   |   |   |   Fe > 0.200: Y3 {Y1=0, Y2=0, Y3=2, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   Fe ≤ 0.200
|   |   |   |   |   |   |
|   |   |   |   |   |   |   Na > 14.010
|   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   RI > 1.522: Y1 {Y1=4, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   RI ≤ 1.522
|   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   RI > 1.520: Y3 {Y1=0, Y2=0, Y3=2, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   RI ≤ 1.520: Y1 {Y1=2, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   Na > 14.010: Y1 {Y1=13, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   Mg ≤ 3.250: Y2 {Y1=0, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   RI ≤ 1.519
|   |   |   |   |   |   |   |   |   Mg > 3.785: Y2 {Y1=0, Y2=6, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   Mg ≤ 3.785
|   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   RI > 1.518
|   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   RI > 1.518: Y2 {Y1=0, Y2=1, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   RI ≤ 1.518
|   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   Mg > 3.105: Y3 {Y1=0, Y2=0, Y3=5, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   Mg ≤ 3.105: Y1 {Y1=1, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   RI ≤ 1.518: Y1 {Y1=4, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   Na ≤ 13.320
|   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   RI > 1.518
|   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   K > 0.290
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   Mg > 3.550: Y2 {Y1=0, Y2=10, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   Mg ≤ 3.550
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   RI > 1.518: Y1 {Y1=4, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   RI ≤ 1.518: Y2 {Y1=0, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   K ≤ 0.290: Y1 {Y1=5, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   RI ≤ 1.518
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   Na > 12.400

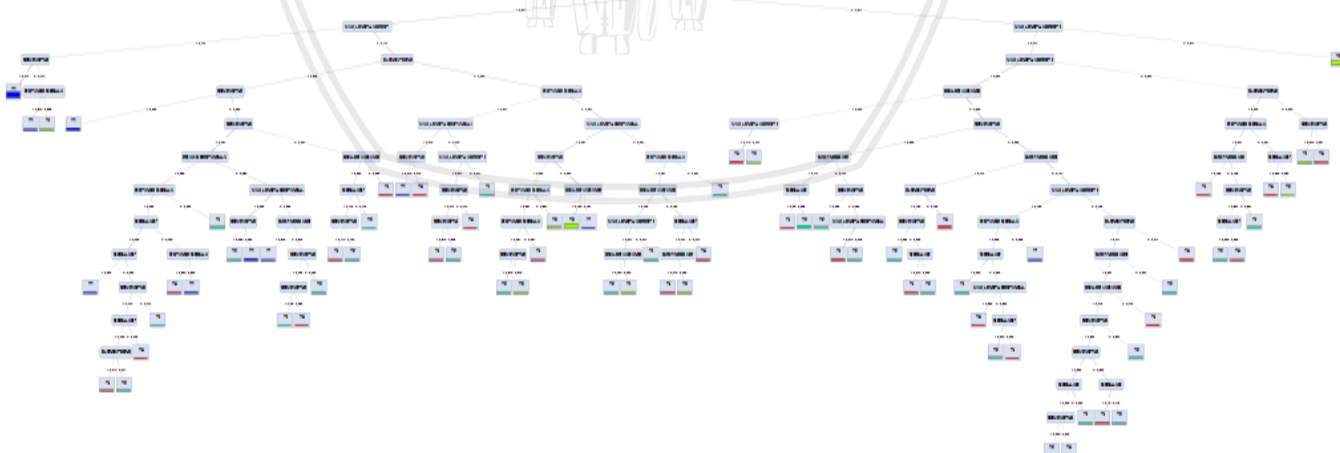
```

```

Mg > 2.6
|
|   RI >
|   |
|   |   K > 0.580: Y2 {Y1=0, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   K ≤ 0.580: Y3 {Y1=0, Y2=0, Y3=2, Y5=0, Y6=0, Y7=0}
|   |   |
|   |   |   Na ≤ 12.875: Y3 {Y1=0, Y2=0, Y3=2, Y5=0, Y6=0, Y7=0}
|   |   |   Mg ≤ 3.290: Y2 {Y1=0, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   K ≤ 0.485
|   |   |   |
|   |   |   |   RI > 1.516
|   |   |   |   |
|   |   |   |   |   RI > 1.516: Y2 {Y1=0, Y2=1, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   RI ≤ 1.516: Y1 {Y1=1, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   RI ≤ 1.516: Y2 {Y1=0, Y2=3, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   Na > 13.055
|   |   |   |   |   |
|   |   |   |   |   |   RI > 1.513
|   |   |   |   |   |   |
|   |   |   |   |   |   |   RI > 1.516
|   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   RI > 1.515: Y1 {Y1=1, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   RI ≤ 1.515: Y2 {Y1=0, Y2=1, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   RI ≤ 1.513: Y7 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=0, Y7=1}
|   |   |   |   |   |   |   |   Na ≤ 13.055: Y1 {Y1=3, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   Mg ≤ 2.697
|   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   Na > 13.785
|   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   Ba > 0.288
|   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   K > 1.545: Y5 {Y1=0, Y2=0, Y3=0, Y5=1, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   K ≤ 1.545: Y7 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=0, Y7=24}
|   |   |   |   |   |   |   |   |   |   |   Ba ≤ 0.288
|   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   RI > 1.520
|   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   RI > 1.522: Y7 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=0, Y7=1}
|   |   |   |   |   |   |   |   |   |   |   |   |   RI ≤ 1.522: Y2 {Y1=0, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   |   RI ≤ 1.520: Y6 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=9, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   |   Na ≤ 13.785
|   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   RI > 1.524: Y2 {Y1=0, Y2=7, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   |   |   RI ≤ 1.524
|   |   |   |   |   |   |   |   |   |   |   |   |   |   Na > 13.495: Y2 {Y1=0, Y2=4, Y3=0, Y5=0, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   |   |   Na ≤ 13.495
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   RI > 1.517: Y5 {Y1=0, Y2=0, Y3=0, Y5=10, Y6=0, Y7=0}
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   RI ≤ 1.517

```

Gambar A-31 Rule Pohon Keputusan DT C5.0 Data Glass



Gambar A-32 Model Pohon Keputusan DT C5.0 Data Vehicle

```

| ELONGATEDNESS > 0.471
|
| MAX.LENGTH ASPECT RATIO > 0.112
|
| COMPACTNESS > 0.272: Y1 {Y1=54, Y2=0, Y3=0, Y4=0}
|
| COMPACTNESS ≤ 0.272
|
| | DISTANCE CIRCULARITY > 0.464: Y1 {Y1=3, Y2=0, Y3=0, Y4=0}
|
| | DISTANCE CIRCULARITY ≤ 0.464: Y3 {Y1=0, Y2=0, Y3=3, Y4=0}
|
| MAX.LENGTH ASPECT RATIO ≤ 0.112
|
| ELONGATEDNESS > 0.586
|
| | COMPACTNESS > 0.380: Y1 {Y1=16, Y2=0, Y3=0, Y4=0}
|
| | COMPACTNESS ≤ 0.380
|
| | COMPACTNESS > 0.207
|
| | PR.AXIS RECTANGULARITY > 0.045
|
| | DISTANCE CIRCULARITY > 0.350
|
| | CIRCULARITY > 0.250
|
| | | CIRCULARITY > 0.385: Y1 {Y1=1, Y2=0, Y3=0, Y4=0}
|
| | | CIRCULARITY ≤ 0.385
|
| | | COMPACTNESS > 0.272
|
| | | CIRCULARITY > 0.288
|
| | | ELONGATEDNESS > 0.671: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
|
| | | ELONGATEDNESS ≤ 0.671: Y2 {Y1=0, Y2=2, Y3=0, Y4=0}
|
| | | CIRCULARITY ≤ 0.288: Y4 {Y1=0, Y2=0, Y3=0, Y4=2}
|
| | | COMPACTNESS ≤ 0.272: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
|
| | CIRCULARITY ≤ 0.250
|
| | DISTANCE CIRCULARITY > 0.436: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
|
| | DISTANCE CIRCULARITY ≤ 0.436: Y1 {Y1=3, Y2=0, Y3=0, Y4=0}
|
| | DISTANCE CIRCULARITY ≤ 0.350: Y2 {Y1=0, Y2=6, Y3=0, Y4=0}
|
| PR.AXIS RECTANGULARITY ≤ 0.045
|
| MAX.LENGTH RECTANGULARITY > 0.088
|
| | COMPACTNESS > 0.359: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
|
| | COMPACTNESS ≤ 0.359: Y1 {Y1=13, Y2=0, Y3=0, Y4=0}
|
| MAX.LENGTH RECTANGULARITY ≤ 0.088
|
| | SKEWNESS ABOUT > 0.410: Y1 {Y1=1, Y2=0, Y3=0, Y4=0}
|
| | SKEWNESS ABOUT ≤ 0.410
|
| | COMPACTNESS > 0.293
|
| | COMPACTNESS > 0.348: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}

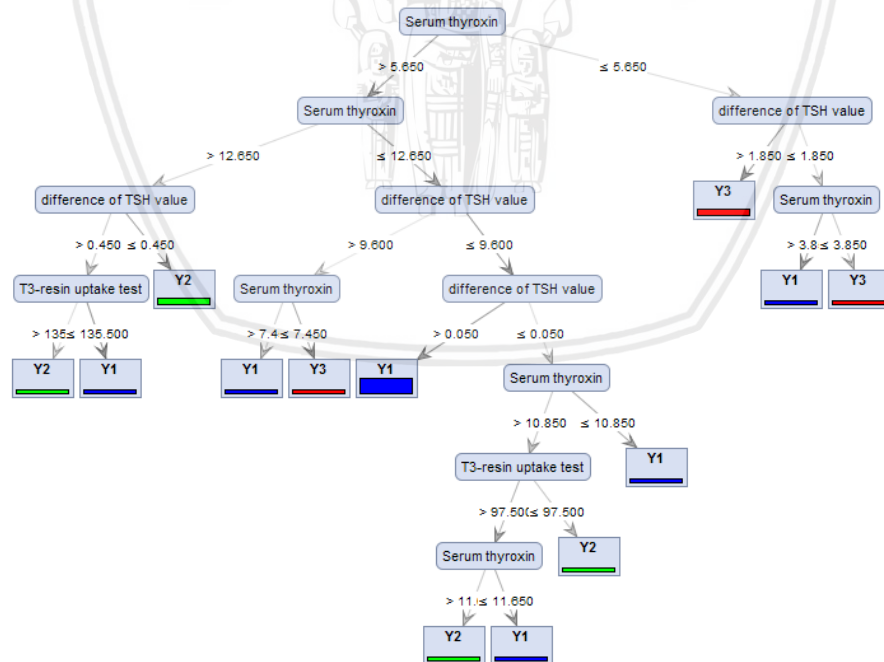
```

```

MAX.LENGTH RECTANGULARITY ≤ 0.485
|
| CIRCULARITY > 0.385: Y2 {Y1=0, Y2=4, Y3=0, Y4=0}
| CIRCULARITY ≤ 0.385: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
|
| DISTANCE CIRCULARITY ≤ 0.664: Y1 {Y1=2, Y2=0, Y3=0, Y4=0}
MAX.LENGTH ASPECT RATIO ≤ 0.133
|
| ELONGATEDNESS > 0.271
| SKEWNESS ABOUT > 0.037
|   SCALED VARIANCE_1 > 0.270
|     COMPACTNESS > 0.402
|       COMPACTNESS > 0.489
|         CIRCULARITY > 0.538
|           COMPACTNESS > 0.533: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
|           COMPACTNESS ≤ 0.533: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
|           CIRCULARITY ≤ 0.538: Y2 {Y1=0, Y2=3, Y3=0, Y4=0}
|         COMPACTNESS ≤ 0.489
|           CIRCULARITY > 0.173: Y4 {Y1=0, Y2=0, Y3=0, Y4=3}
|           CIRCULARITY ≤ 0.173: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
|         COMPACTNESS ≤ 0.402: Y2 {Y1=0, Y2=3, Y3=0, Y4=0}
|       SCALED VARIANCE_1 ≤ 0.270: Y4 {Y1=0, Y2=0, Y3=0, Y4=5}
|     SKEWNESS ABOUT ≤ 0.037: Y2 {Y1=0, Y2=5, Y3=0, Y4=0}
|   ELONGATEDNESS ≤ 0.271: Y4 {Y1=0, Y2=0, Y3=0, Y4=7}
MAX.LENGTH ASPECT RATIO ≤ 0.092
|
| ELONGATEDNESS > 0.329
|   DISTANCE CIRCULARITY > 0.521
|     SKEWNESS ABOUT > 0.164: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
|     SKEWNESS ABOUT ≤ 0.164
|       COMPACTNESS > 0.467
|         CIRCULARITY > 0.500: Y2 {Y1=0, Y2=1, Y3=0, Y4=0}
|         CIRCULARITY ≤ 0.500: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
|       COMPACTNESS ≤ 0.467: Y2 {Y1=0, Y2=6, Y3=0, Y4=0}
|     DISTANCE CIRCULARITY ≤ 0.521
|       CIRCULARITY > 0.308: Y4 {Y1=0, Y2=0, Y3=0, Y4=2}
|       CIRCULARITY ≤ 0.308: Y3 {Y1=0, Y2=0, Y3=1, Y4=0}
|     ELONGATEDNESS ≤ 0.329
|       COMPACTNESS > 0.337: Y3 {Y1=0, Y2=0, Y3=7, Y4=0}
|       COMPACTNESS ≤ 0.337: Y4 {Y1=0, Y2=0, Y3=0, Y4=1}
MAX.LENGTH ASPECT RATIO ≤ 0.071: Y3 {Y1=0, Y2=0, Y3=35, Y4=0}

```

Gambar A-33 Rule Pohon Keputusan DT C5.0 Data Vehicle



Gambar A.34. Model Bahan Keputusan DT G5.9 Data Thyroid

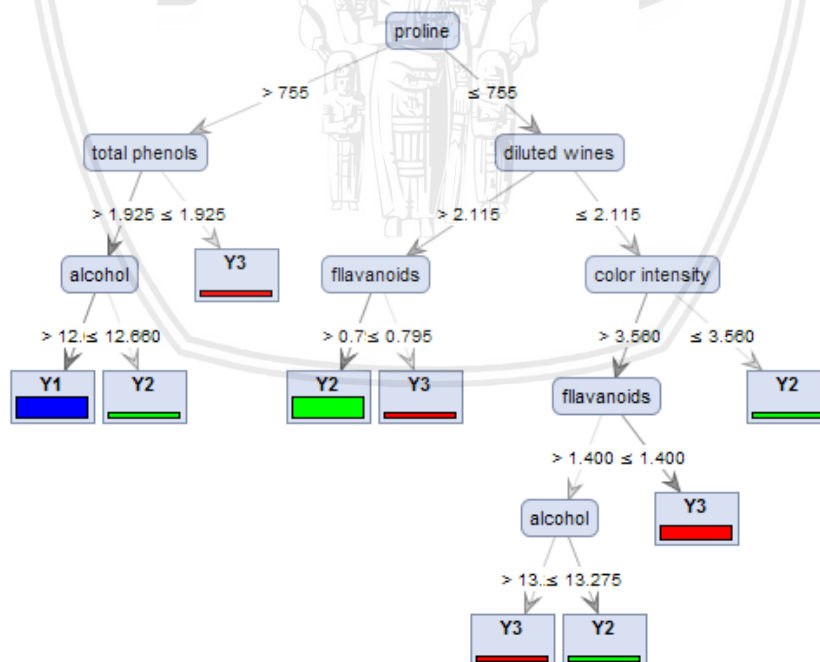
Tree

```

Serum thyroxin > 5.650
|   Serum thyroxin > 12.650
|   |   difference of TSH value > 0.450
|   |   |   T3-resin uptake test > 135.500: Y2 {Y1=0, Y2=1, Y3=0}
|   |   |   T3-resin uptake test ≤ 135.500: Y1 {Y1=8, Y2=0, Y3=0}
|   |   |   difference of TSH value ≤ 0.450: Y2 {Y1=0, Y2=31, Y3=0}
|   |   Serum thyroxin ≤ 12.650
|   |   |   difference of TSH value > 9.600
|   |   |   |   Serum thyroxin > 7.450: Y1 {Y1=1, Y2=0, Y3=0}
|   |   |   |   Serum thyroxin ≤ 7.450: Y3 {Y1=0, Y2=0, Y3=3}
|   |   |   |   difference of TSH value ≤ 9.600
|   |   |   |   |   difference of TSH value > 0.050: Y1 {Y1=127, Y2=0, Y3=0}
|   |   |   |   |   difference of TSH value ≤ 0.050
|   |   |   |   |   |   Serum thyroxin > 10.850
|   |   |   |   |   |   |   T3-resin uptake test > 97.500
|   |   |   |   |   |   |   |   Serum thyroxin > 11.650: Y2 {Y1=0, Y2=1, Y3=0}
|   |   |   |   |   |   |   |   Serum thyroxin ≤ 11.650: Y1 {Y1=2, Y2=0, Y3=0}
|   |   |   |   |   |   |   |   T3-resin uptake test ≤ 97.500: Y2 {Y1=0, Y2=2, Y3=0}
|   |   |   |   |   |   |   |   Serum thyroxin ≤ 10.850: Y1 {Y1=10, Y2=0, Y3=0}
|   |   Serum thyroxin ≤ 5.650
|   |   |   difference of TSH value > 1.850: Y3 {Y1=0, Y2=0, Y3=26}
|   |   |   difference of TSH value ≤ 1.850
|   |   |   |   Serum thyroxin > 3.850: Y1 {Y1=2, Y2=0, Y3=0}
|   |   |   |   Serum thyroxin ≤ 3.850: Y3 {Y1=0, Y2=0, Y3=1}

```

Gambar A-35 Rule Pohon Keputusan DT C5.0 Data Thyroid



Gambar A-36 Model Pohon Keputusan DT C5.0 Data Wine

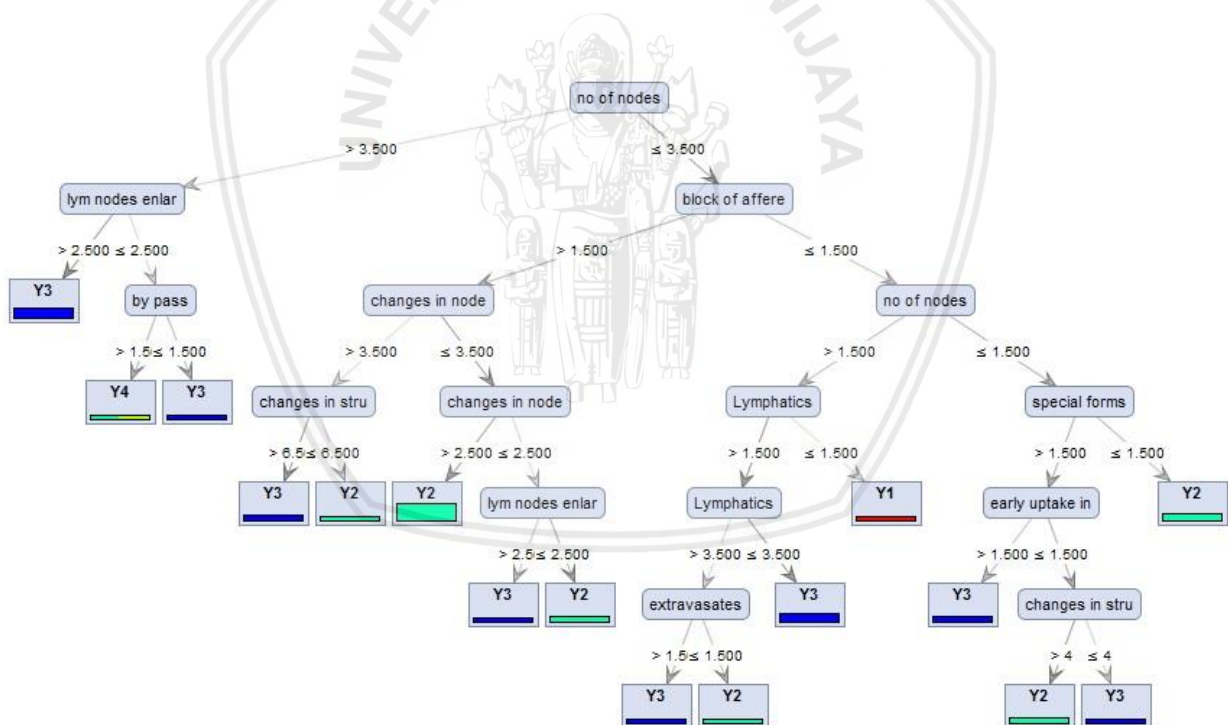
Tree

```

proline > 755
|   total phenols > 1.925
| |   alcohol > 12.660: Y1 {Y1=57, Y2=0, Y3=0}
| |   alcohol ≤ 12.660: Y2 {Y1=0, Y2=1, Y3=0}
|   total phenols ≤ 1.925: Y3 {Y1=0, Y2=0, Y3=5}
proline ≤ 755
|   diluted wines > 2.115
| |   flllavanoids > 0.795: Y2 {Y1=0, Y2=61, Y3=0}
| |   flllavanoids ≤ 0.795: Y3 {Y1=0, Y2=0, Y3=2}
|   diluted wines ≤ 2.115
| |   color intensity > 3.560
| | |   flllavanoids > 1.400
| | | |   alcohol > 13.275: Y3 {Y1=0, Y2=0, Y3=1}
| | | |   alcohol ≤ 13.275: Y2 {Y1=0, Y2=2, Y3=0}
| | |   flllavanoids ≤ 1.400: Y3 {Y1=0, Y2=0, Y3=36}
| |   color intensity ≤ 3.560: Y2 {Y1=0, Y2=3, Y3=0}

```

Gambar A-37 Rule Pohon Keputusan DT C5.0 Data Wine



Gambar A-38 Model Pohon Keputusan csDT C5.0 Data Lymphografi

```
no of nodes > 3.500
|   lym nodes enlar > 2.500: Y3 {Y3=24, Y2=0, Y4=0, Y1=0}
|   lym nodes enlar ≤ 2.500
|   |   by pass > 1.500: Y4 {Y3=0, Y2=1, Y4=1, Y1=0}
|   |   by pass ≤ 1.500: Y3 {Y3=2, Y2=0, Y4=0, Y1=0}
no of nodes ≤ 3.500
|   block of affere > 1.500
|   |   changes in node > 3.500
|   |   |   changes in stru > 6.500: Y3 {Y3=5, Y2=0, Y4=0, Y1=0}
|   |   |   changes in stru ≤ 6.500: Y2 {Y3=0, Y2=2, Y4=0, Y1=0}
|   |   changes in node ≤ 3.500
|   |   |   changes in node > 2.500: Y2 {Y3=0, Y2=48, Y4=0, Y1=0}
|   |   |   changes in node ≤ 2.500
|   |   |   |   lym nodes enlar > 2.500: Y3 {Y3=3, Y2=0, Y4=0, Y1=0}
|   |   |   |   lym nodes enlar ≤ 2.500: Y2 {Y3=0, Y2=6, Y4=0, Y1=0}
|   block of affere ≤ 1.500
|   |   no of nodes > 1.500
|   |   |   Lymphatics > 1.500
|   |   |   |   Lymphatics > 3.500
|   |   |   |   |   extravasates > 1.500: Y3 {Y3=2, Y2=0, Y4=0, Y1=0}
|   |   |   |   |   extravasates ≤ 1.500: Y2 {Y3=0, Y2=2, Y4=0, Y1=0}
|   |   |   |   Lymphatics ≤ 3.500: Y3 {Y3=15, Y2=0, Y4=0, Y1=0}
|   |   |   |   Lymphatics ≤ 1.500: Y1 {Y3=0, Y2=0, Y4=0, Y1=2}
|   |   no of nodes ≤ 1.500
|   |   |   special forms > 1.500
|   |   |   |   early uptake in > 1.500: Y3 {Y3=6, Y2=0, Y4=0, Y1=0}
|   |   |   |   early uptake in ≤ 1.500
|   |   |   |   |   changes in stru > 4: Y2 {Y3=0, Y2=6, Y4=0, Y1=0}
|   |   |   |   |   changes in stru ≤ 4: Y3 {Y3=2, Y2=0, Y4=0, Y1=0}
|   |   |   special forms ≤ 1.500: Y2 {Y3=0, Y2=11, Y4=0, Y1=0}
```



Gambar A-40 Model Pohon Keputusan csDT C5.0 Data Glass

Tree

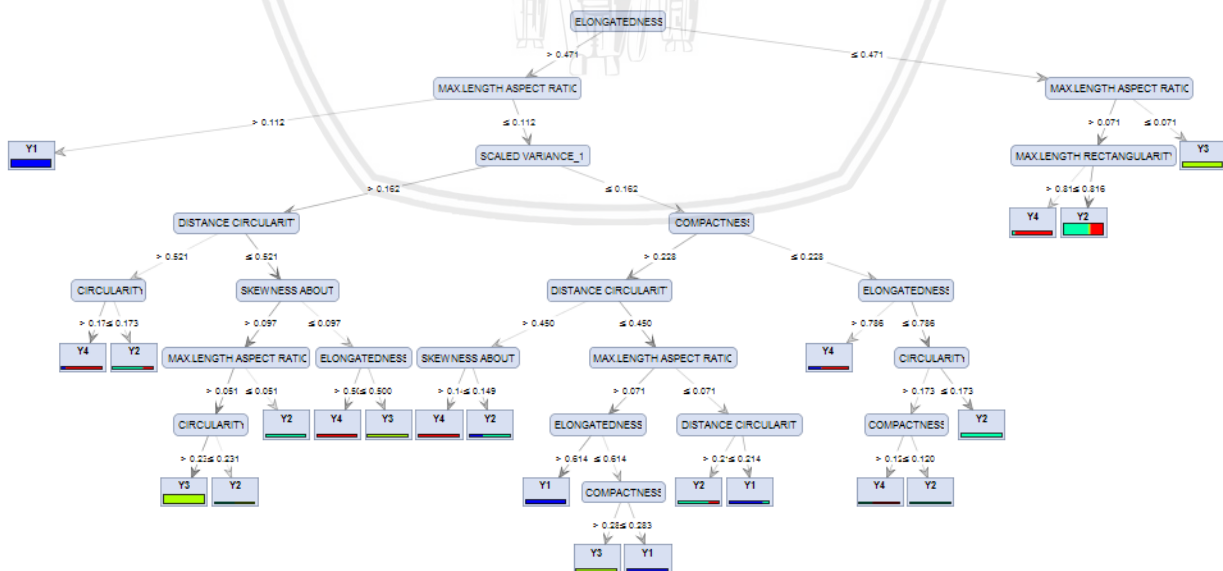
```

Mg > 3.295
|
|  RI > 1.517
|  |
|  |  Mg > 3.610
|  |  |
|  |  |  K > 0.519
|  |  |  |
|  |  |  |  RI > 1.518: Y2 {Y1=0, Y2=15, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  RI ≤ 1.518: Y1 {Y1=6, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  K ≤ 0.519
|  |  |  |  |
|  |  |  |  |  RI > 1.521: Y1 {Y1=13, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  RI ≤ 1.521
|  |  |  |  |  |
|  |  |  |  |  |  K > 0.085: Y3 {Y1=0, Y2=0, Y3=2, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  K ≤ 0.085: Y1 {Y1=2, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  Mg ≤ 3.610
|  |  |  |  |
|  |  |  |  |  Mg > 3.345
|  |  |  |  |  |
|  |  |  |  |  |  Na > 13.510
|  |  |  |  |  |  |
|  |  |  |  |  |  |  Na > 13.725: Y1 {Y1=5, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  |  Na ≤ 13.725: Y3 {Y1=1, Y2=0, Y3=2, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  |  Na ≤ 13.510: Y1 {Y1=33, Y2=1, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  Mg ≤ 3.345
|  |  |  |  |  |  |
|  |  |  |  |  |  |  RI > 1.519: Y7 {Y1=1, Y2=0, Y3=0, Y5=0, Y6=0, Y7=2}
|  |  |  |  |  |  |  RI ≤ 1.519: Y3 {Y1=0, Y2=0, Y3=2, Y5=0, Y6=0, Y7=0}
|  |  |  |  RI ≤ 1.517
|  |  |  |  |
|  |  |  |  |  Mg > 3.405
|  |  |  |  |  |
|  |  |  |  |  |  RI > 1.516
|  |  |  |  |  |  |
|  |  |  |  |  |  |  Na > 12.805
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  Na > 13.505: Y1 {Y1=2, Y2=0, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  |  |  Na ≤ 13.505
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  K > 0.615: Y2 {Y1=1, Y2=18, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  |  |  |  K ≤ 0.615
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  RI > 1.516
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  Na > 12.875: Y2 {Y1=0, Y2=5, Y3=1, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  |  |  |  |  |  Na ≤ 12.875: Y3 {Y1=0, Y2=0, Y3=2, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  |  |  |  |  |  RI ≤ 1.516: Y3 {Y1=0, Y2=0, Y3=2, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  |  |  |  |  |  |  RI ≤ 1.516: Y2 {Y1=0, Y2=8, Y3=0, Y5=0, Y6=0, Y7=0}

Mg ≤ 3.295
|
|  Na > 13.620
|  |
|  |  Ba > 0.288: Y7 {Y1=0, Y2=0, Y3=0, Y5=0, Y6=0, Y7=28}
|  |  Ba ≤ 0.288
|  |  |
|  |  |  RI > 1.520: Y2 {Y1=0, Y2=3, Y3=0, Y5=0, Y6=0, Y7=1}
|  |  |  RI ≤ 1.520: Y6 {Y1=0, Y2=1, Y3=0, Y5=0, Y6=11, Y7=0}
|  |  Na ≤ 13.620
|  |  |
|  |  |  Mg > 2.697
|  |  |  |
|  |  |  |  K > 0.565: Y2 {Y1=0, Y2=8, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  K ≤ 0.565: Y1 {Y1=1, Y2=1, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  Mg ≤ 2.697
|  |  |  |
|  |  |  |  RI > 1.523: Y2 {Y1=0, Y2=4, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  RI ≤ 1.523
|  |  |  |  |
|  |  |  |  |  Na > 13.465: Y2 {Y1=0, Y2=2, Y3=0, Y5=0, Y6=0, Y7=0}
|  |  |  |  |  Na ≤ 13.465: Y5 {Y1=0, Y2=0, Y3=0, Y5=17, Y6=0, Y7=0}

```

Gambar A-41 Rule Pohon Keputusan csDT C5.0 Data Glass



Gambar A-42 Model Pohon Keputusan csDT C5.0 Data Vehicle

Tree

```

ELONGATEDNESS > 0.471
|
| MAX.LENGTH ASPECT RATIO > 0.112: Y1 {Y1=57, Y2=0, Y3=1, Y4=0}
|
| MAX.LENGTH ASPECT RATIO ≤ 0.112
|
| | SCALED VARIANCE_1 > 0.162
|
| | | DISTANCE CIRCULARITY > 0.521
|
| | | | CIRCULARITY > 0.173: Y4 {Y1=1, Y2=0, Y3=0, Y4=9}
|
| | | | CIRCULARITY ≤ 0.173: Y2 {Y1=0, Y2=3, Y3=0, Y4=1}
|
| | | DISTANCE CIRCULARITY ≤ 0.521
|
| | | | SKEWNESS ABOUT > 0.097
|
| | | | MAX.LENGTH ASPECT RATIO > 0.051
|
| | | | | CIRCULARITY > 0.231: Y3 {Y1=0, Y2=0, Y3=79, Y4=0}
|
| | | | | CIRCULARITY ≤ 0.231: Y2 {Y1=0, Y2=1, Y3=1, Y4=0}
|
| | | | MAX.LENGTH ASPECT RATIO ≤ 0.051: Y2 {Y1=0, Y2=4, Y3=0, Y4=0}
|
| | | | SKEWNESS ABOUT ≤ 0.097
|
| | | | ELONGATEDNESS > 0.500: Y4 {Y1=0, Y2=0, Y3=0, Y4=5}
|
| | | | ELONGATEDNESS ≤ 0.500: Y3 {Y1=0, Y2=0, Y3=3, Y4=0}
|
| | SCALED VARIANCE_1 ≤ 0.162
|
| | | COMPACTNESS > 0.228
|
| | | | DISTANCE CIRCULARITY > 0.450
|
| | | | SKEWNESS ABOUT > 0.149: Y4 {Y1=0, Y2=0, Y3=0, Y4=4}
|
| | | | SKEWNESS ABOUT ≤ 0.149: Y2 {Y1=1, Y2=2, Y3=0, Y4=0}
|
| | | DISTANCE CIRCULARITY ≤ 0.450

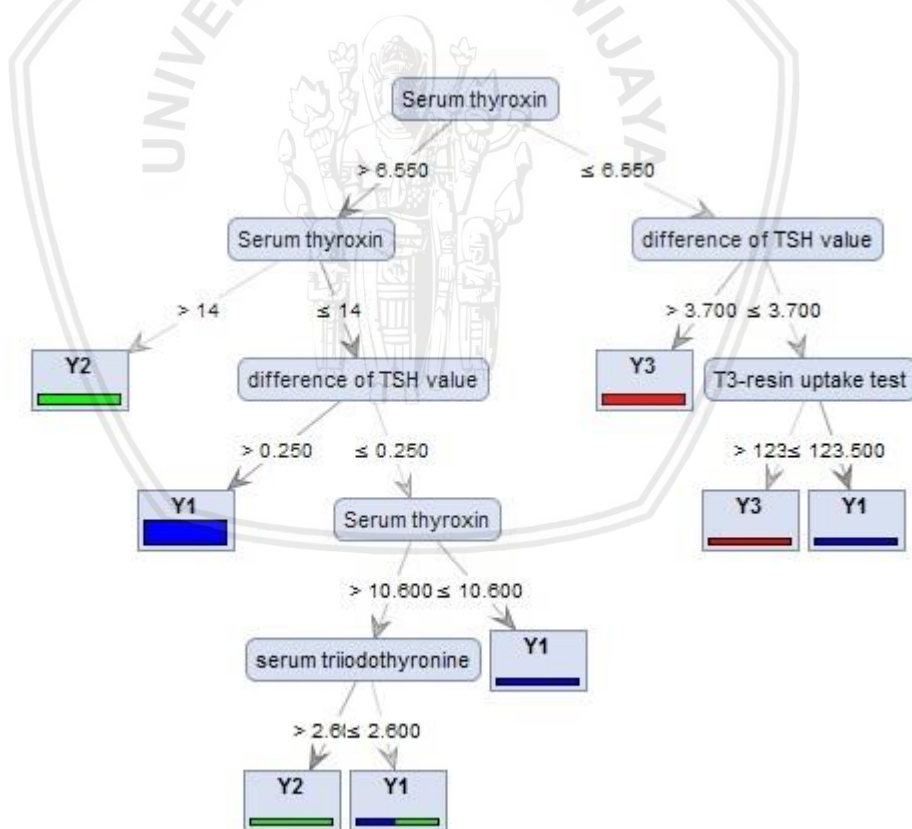
```

```

|
|
|
|
| MAX.LENGTH ASPECT RATIO > 0.071
|
| | ELONGATEDNESS > 0.614: Y1 {Y1=22, Y2=0, Y3=0, Y4=0}
|
| | ELONGATEDNESS ≤ 0.614
|
| | | COMPACTNESS > 0.283: Y3 {Y1=0, Y2=0, Y3=2, Y4=0}
|
| | | COMPACTNESS ≤ 0.283: Y1 {Y1=2, Y2=0, Y3=0, Y4=0}
|
| | MAX.LENGTH ASPECT RATIO ≤ 0.071
|
| | | DISTANCE CIRCULARITY > 0.214: Y2 {Y1=0, Y2=3, Y3=0, Y4=1}
|
| | | DISTANCE CIRCULARITY ≤ 0.214: Y1 {Y1=5, Y2=1, Y3=0, Y4=0}
|
| | COMPACTNESS ≤ 0.228
|
| | | ELONGATEDNESS > 0.786: Y4 {Y1=1, Y2=0, Y3=0, Y4=2}
|
| | | ELONGATEDNESS ≤ 0.786
|
| | | | CIRCULARITY > 0.173
|
| | | | COMPACTNESS > 0.120: Y4 {Y1=0, Y2=1, Y3=0, Y4=2}
|
| | | | COMPACTNESS ≤ 0.120: Y2 {Y1=0, Y2=2, Y3=0, Y4=0}
|
| | | | CIRCULARITY ≤ 0.173: Y2 {Y1=0, Y2=10, Y3=0, Y4=0}
|
| ELONGATEDNESS ≤ 0.471
|
| | MAX.LENGTH ASPECT RATIO > 0.071
|
| | | MAX.LENGTH RECTANGULARITY > 0.816: Y4 {Y1=0, Y2=1, Y3=0, Y4=13}
|
| | | MAX.LENGTH RECTANGULARITY ≤ 0.816: Y2 {Y1=0, Y2=64, Y3=5, Y4=33}
|
| | MAX.LENGTH ASPECT RATIO ≤ 0.071: Y3 {Y1=0, Y2=0, Y3=34, Y4=0}

```

Gambar A-43 Rule Pohon Keputusan csDT C5.0 Data Vehicle



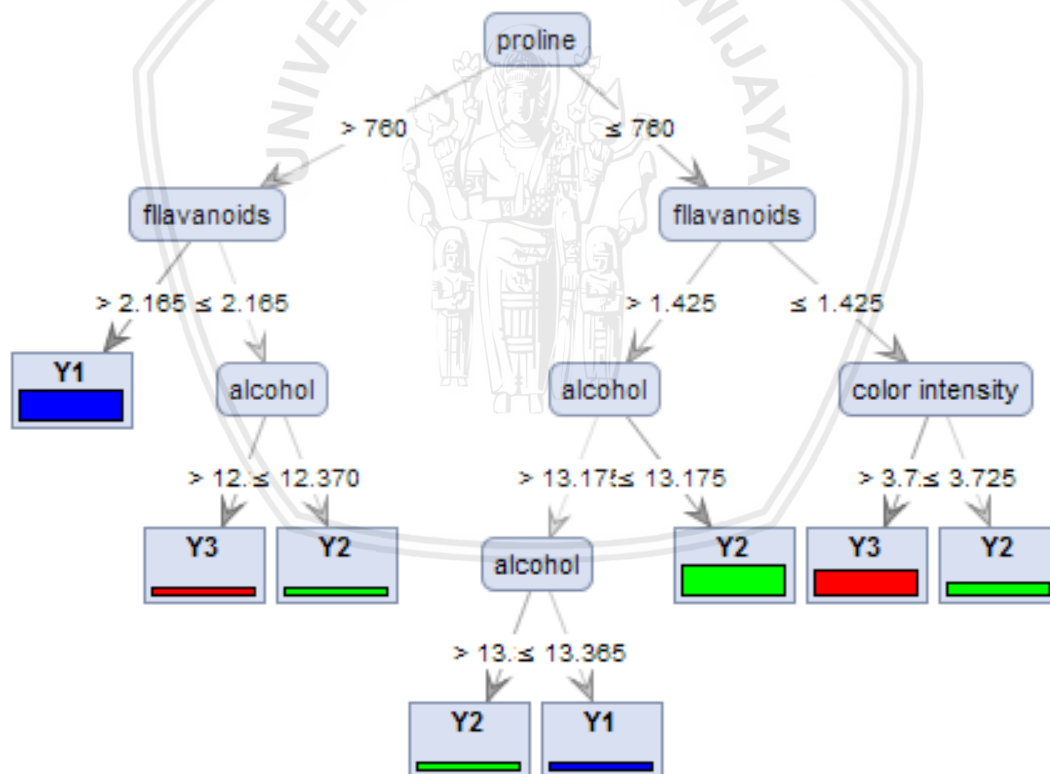
Gambar A-44 Model Pohon Keputusan csDT C5.0 Data Thyroid

Tree

```

Serum thyroxin > 6.550
| Serum thyroxin > 14: Y2 {Y1=1, Y2=29, Y3=0}
| Serum thyroxin ≤ 14
| | difference of TSH value > 0.250: Y1 {Y1=118, Y2=0, Y3=0}
| | difference of TSH value ≤ 0.250
| | | Serum thyroxin > 10.600
| | | | serum triiodothyronine > 2.600: Y2 {Y1=0, Y2=7, Y3=0}
| | | | serum triiodothyronine ≤ 2.600: Y1 {Y1=1, Y2=1, Y3=0}
| | | Serum thyroxin ≤ 10.600: Y1 {Y1=11, Y2=0, Y3=0}
Serum thyroxin ≤ 6.550
| difference of TSH value > 3.700: Y3 {Y1=0, Y2=0, Y3=33}
| difference of TSH value ≤ 3.700
| | T3-resin uptake test > 123.500: Y3 {Y1=0, Y2=0, Y3=3}
| | T3-resin uptake test ≤ 123.500: Y1 {Y1=11, Y2=0, Y3=0}
    
```

Gambar A-45 Rule Pohon Keputusan csDT C5.0 Data Thyroid



Gambar A-46 Model Pohon Keputusan csDT C5.0 Data Wine

Tree

```

proline > 760
|   fllavanoids > 2.165: Y1 {Y1=57, Y2=0, Y3=0}
|   fllavanoids ≤ 2.165
|   |   alcohol > 12.370: Y3 {Y1=0, Y2=0, Y3=4}
|   |   alcohol ≤ 12.370: Y2 {Y1=0, Y2=2, Y3=0}
proline ≤ 760
|   fllavanoids > 1.425
|   |   alcohol > 13.175
|   |   |   alcohol > 13.365: Y2 {Y1=0, Y2=4, Y3=0}
|   |   |   alcohol ≤ 13.365: Y1 {Y1=2, Y2=0, Y3=0}
|   |   alcohol ≤ 13.175: Y2 {Y1=0, Y2=54, Y3=0}
|   fllavanoids ≤ 1.425
|   |   color intensity > 3.725: Y3 {Y1=0, Y2=0, Y3=43}
|   |   color intensity ≤ 3.725: Y2 {Y1=0, Y2=12, Y3=0}

```

Gambar A-47 Rule Pohon Keputusan csDT C5.0 Data Wine

LAMPIRAN B

B-1. PROGRAM DECISION TREE

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>

<process version="5.3.000">

  <context>

    <input/>

    <output/>

    <macros/>

  </context>

  <operator activated="true" class="process" compatibility="5.3.000" expanded="true"
name="Process">

    <process expanded="true" height="664" width="366"> # posisi frame pada tampilan rapid miner

      <operator activated="true" class="read_excel" compatibility="5.3.000" expanded="true" ( 1) #
input data dari excell
height="60" name="Read Excel" width="90" x="45" y="30">

        <parameter key="excel_file" value="E:\DATA DIKI\TESIS\ (3) UJIAN TESIS\DATASET\DATA ORI\Glass
ORI.xls"/> #posisi DATA disimpan

        <parameter key="imported_cell_range" value="A1:J215"/>

        <parameter key="first_row_as_names" value="false"/> # row awal ditentukan sebagai atribut

        <list key="annotations">

          <parameter key="0" value="Name"/>

        </list>

        <list key="data_set_meta_data_information"> # diperoleh atribut dan label dataset

          <parameter key="0" value="RI.true.real.attribute"/>

          <parameter key="1" value="Na.true.numeric.attribute"/>

          <parameter key="2" value="Mg.true.real.attribute"/>

          <parameter key="3" value="Al.true.real.attribute"/>

          <parameter key="4" value="Si.true.numeric.attribute"/>

          <parameter key="5" value="K.true.real.attribute"/>

          <parameter key="6" value="Ca.true.numeric.attribute"/>

```

```

<parameter key="7" value="Ba.true.real.attribute"/>
<parameter key="8" value="Fe.true.real.attribute"/>
<parameter key="9" value="class.true.polynomial.label"/>
</list>
</operator>

<operator activated="true" class="x_validation" compatibility="5.3.000" expanded="true" (2) #
height="112" name="Validation" width="90" x="246" y="30">

  <parameter key="sampling_type" value="shuffled sampling"/> # pengambilan sample acak

  <process expanded="true" height="682" width="373">

    <operator activated="true" class="metacost" compatibility="5.3.000" expanded="true" (3)
height="76" name="MetaCost" width="90" x="112" y="30">

      <parameter key="cost_matrix" value="[0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0;1.0 0.0 1.0 1.0 1.0 1.0 1.0
1.0;1.0 1.0 0.0 1.0 1.0 1.0 1.0 1.0;1.0 1.0 1.0 0.0 1.0 1.0 1.0 1.0;1.0 1.0 1.0 1.0 0.0 1.0 1.0 1.0;1.0 1.0 1.0
1.0 1.0 0.0 1.0 1.0;1.0 1.0 1.0 1.0 1.0 0.0 1.0;1.0 1.0 1.0 1.0 1.0 1.0 0.0]"/>

      <process expanded="true" height="682" width="797">

        <operator activated="true" class="decision tree" compatibility="5.3.000" expanded="true"
(4) height="76" name="Decision Tree" width="90" x="380" y="30"/>

          <connect from_port="training set" to_op="Decision Tree" to_port="training set"/>

          <connect from_op="Decision Tree" from_port="model" to_port="model"/>

          <portSpacing port="source_training set" spacing="0"/>

          <portSpacing port="sink_model" spacing="0"/>

        </process>

      </operator>

    <connect from_port="training" to_op="MetaCost" to_port="training set"/> #Model traning to di
    evaluasi menggunakan metacost

    <connect from_op="MetaCost" from_port="model" to_port="model"/>

    <portSpacing port="source_training" spacing="0"/>

    <portSpacing port="sink_model" spacing="0"/>

    <portSpacing port="sink_through 1" spacing="0"/>

  </process>

```

```
<process expanded="true" height="682" width="373">
```

```
  <operator activated="true" class="apply_model" compatibility="5.3.000" expanded="true"
(5) height="76" name="Apply Model" width="90" x="45" y="30">
```

```
    <list key="application_parameters"/>
```

```
  </operator>
```

```
  <operator activated="true" class="performance" compatibility="5.3.000" expanded="true"
(6) # mengukur performa classifier
```

```
height="76" name="Performance" width="90" x="179" y="30"/>
```

```
  <connect from_port="model" to_op="Apply Model" to_port="model"/>
```

```
  <connect from_port="test set" to_op="Apply Model" to_port="unlabelled data"/>
```

```
  <connect from_op="Apply Model" from_port="labelled data" to_op="Performance"
to_port="labelled data"/>
```

```
  <connect from_op="Performance" from_port="performance" to_port="averagable 1"/>
```

```
  <portSpacing port="source_model" spacing="0"/>
```

```
  <portSpacing port="source_test set" spacing="0"/>
```

```
  <portSpacing port="source_through 1" spacing="0"/>
```

```
  <portSpacing port="sink_averagable 1" spacing="0"/>
```

```
  <portSpacing port="sink_averagable 2" spacing="0"/>
```

```
</process>
```

```
</operator>
```

```
  <connect from_port="input 1" to_op="Read Excel" to_port="file"/> (7) # Validasi
Performance classifier
```

```
  <connect from_op="Read Excel" from_port="output" to_op="Validation" to_port="training"/>
```

```
  <connect from_op="Validation" from_port="model" to_port="result 1"/>
```

```
  <connect from_op="Validation" from_port="training" to_port="result 2"/>
```

```
  <connect from_op="Validation" from_port="averagable 1" to_port="result 3"/> # Nilai rata2
pengujian
```

```
  <portSpacing port="source_input 1" spacing="0"/>
```

```
  <portSpacing port="source_input 2" spacing="0"/>
```

```
  <portSpacing port="sink_result 1" spacing="0"/>
```

B-2. PROGRAM COST SENSITIVE NAIVE BAYES

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<process version="5.3.000">
  <context>
    <input/>
    <output/>
    <macros/>
  </context>
  <operator activated="true" class="process" compatibility="5.3.000" expanded="true"
name="Process">
    <process expanded="true" height="664" width="366">
      <operator activated="true" class="read_excel" compatibility="5.3.000" expanded="true"
height="60" name="Read Excel" width="90" x="45" y="30">
        <parameter key="excel_file" value="E:\DATA DIKI\TESIS\ (3) UJIAN TESIS\DATASET\DATA ORI\Glass
ORI.xls"/>
        <parameter key="imported_cell_range" value="A1:J215"/>
        <parameter key="first_row_as_names" value="false"/>
        <list key="annotations">
          <parameter key="0" value="Name"/>
        </list>
        <list key="data_set_meta_data_information">
          <parameter key="0" value="RI.true.real.attribute"/>
          <parameter key="1" value="Na.true.numeric.attribute"/>
          <parameter key="2" value="Mg.true.real.attribute"/>
          <parameter key="3" value="Al.true.real.attribute"/>
          <parameter key="4" value="Si.true.numeric.attribute"/>
          <parameter key="5" value="K.true.real.attribute"/>
          <parameter key="6" value="Ca.true.numeric.attribute"/>
          <parameter key="7" value="Ba.true.real.attribute"/>
        </list>
      </operator>
    </process>
  </operator>
</process>
```

```

<parameter key="8" value="Fe.true.real.attribute"/>
<parameter key="9" value="class.true.polynomial.label"/>
</list>
</operator>
<operator activated="true" class="x_validation" compatibility="5.3.000" expanded="true"
height="112" name="Validation" width="90" x="246" y="30">
  <parameter key="sampling_type" value="shuffled sampling"/>
  <process expanded="true" height="682" width="373">
    <operator activated="true" class="metacost" compatibility="5.3.000" expanded="true"
height="76" name="MetaCost" width="90" x="112" y="30">
      <parameter key="cost_matrix" value="[0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0;1.0 0.0 1.0 1.0 1.0 1.0 1.0
1.0;1.0 1.0 0.0 1.0 1.0 1.0 1.0;1.0 1.0 1.0 0.0 1.0 1.0 1.0;1.0 1.0 1.0 1.0 0.0 1.0 1.0;1.0 1.0 1.0
1.0 1.0 0.0 1.0;1.0 1.0 1.0 1.0 1.0 0.0 1.0;1.0 1.0 1.0 1.0 1.0 1.0 0.0]"/>
        <process expanded="true" height="712" width="433">
          <operator activated="true" class="naive_bayes" compatibility="5.3.000" expanded="true"
height="76" name="Naive Bayes" width="90" x="313" y="30"/>
            <connect from_port="training set" to_op="Naive Bayes" to_port="training set"/>
            <connect from_op="Naive Bayes" from_port="model" to_port="model"/>
            <portSpacing port="source_training set" spacing="0"/>
            <portSpacing port="sink_model" spacing="0"/>
          </process>
        </operator>
        <connect from_port="training" to_op="MetaCost" to_port="training set"/>
        <connect from_op="MetaCost" from_port="model" to_port="model"/>
        <portSpacing port="source_training" spacing="0"/>
        <portSpacing port="sink_model" spacing="0"/>
        <portSpacing port="sink_through 1" spacing="0"/>
      </process>
    </process expanded="true" height="682" width="373">
      <operator activated="true" class="apply_model" compatibility="5.3.000" expanded="true"
height="76" name="Apply Model" width="90" x="45" y="30">

```

```
<list key="application_parameters"/>
</operator>

<operator activated="true" class="performance" compatibility="5.3.000" expanded="true"
height="76" name="Performance" width="90" x="179" y="30"/>

<connect from_port="model" to_op="Apply Model" to_port="model"/>

<connect from_port="test set" to_op="Apply Model" to_port="unlabelled data"/>

<connect from_op="Apply Model" from_port="labelled data" to_op="Performance"
to_port="labelled data"/>

<connect from_op="Performance" from_port="performance" to_port="averagable 1"/>

<portSpacing port="source_model" spacing="0"/>

<portSpacing port="source_test set" spacing="0"/>

<portSpacing port="source_through 1" spacing="0"/>

<portSpacing port="sink_averagable 1" spacing="0"/>

<portSpacing port="sink_averagable 2" spacing="0"/>

</process>
</operator>

<connect from_port="input 1" to_op="Read Excel" to_port="file"/>

<connect from_op="Read Excel" from_port="output" to_op="Validation" to_port="training"/>

<connect from_op="Validation" from_port="model" to_port="result 1"/>

<connect from_op="Validation" from_port="training" to_port="result 2"/>

<connect from_op="Validation" from_port="averagable 1" to_port="result 3"/>

<portSpacing port="source_input 1" spacing="0"/>

<portSpacing port="source_input 2" spacing="0"/>

<portSpacing port="sink_result 1" spacing="0"/>

<portSpacing port="sink_result 2" spacing="0"/>

<portSpacing port="sink_result 3" spacing="0"/>

<portSpacing port="sink_result 4" spacing="0"/>

</process>
</operator>
```

B-3. PROGRAM PARTICLE SWARM OPTIMIZATION

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>

<process version="5.3.000">

  <context>

    <input/>

    <output/>

    <macros/>

  </context>

  <operator activated="true" class="process" compatibility="5.3.000" expanded="true"
  name="Process">

    <process expanded="true" height="664" width="366">

      <operator activated="true" class="read_excel" compatibility="5.3.000" expanded="true"
      height="60" name="Read Excel" width="90" x="45" y="30">

        <parameter key="excel_file" value="E:\DATA DIKI\TESIS\3) UJIAN TESIS\DATASET\DATA ORI\Glass
        ORI.xls"/>

        <parameter key="imported_cell_range" value="A1:J215"/>

        <parameter key="first_row_as_names" value="false"/>

        <list key="annotations">

          <parameter key="0" value="Name"/>

        </list>

        <list key="data_set_meta_data_information">

          <parameter key="0" value="RI.true.real.attribute"/>

          <parameter key="1" value="Na.true.numeric.attribute"/>

          <parameter key="2" value="Mg.true.real.attribute"/>

          <parameter key="3" value="Al.true.real.attribute"/>

          <parameter key="4" value="Si.true.numeric.attribute"/>

          <parameter key="5" value="K.true.real.attribute"/>

          <parameter key="6" value="Ca.true.numeric.attribute"/>

          <parameter key="7" value="Ba.true.real.attribute"/>

          <parameter key="8" value="Fe.true.real.attribute"/>

        </list>

      </operator>

    </process>

  </operator>

</process>
```

```

    <parameter key="9" value="class.true.polynomial.prediction"/>
</list>
</operator>

<operator activated="true" class="optimize_weights_pso" compatibility="5.3.000" expanded="true"
height="94" name="Optimize Weights (PSO)" width="90" x="246" y="30">

    <parameter key="normalize_weights" value="true"/>

    <parameter key="maximum_number_of_generations" value="20"/>

    <parameter key="dynamic_inertia_weight" value="false"/>

    <process expanded="true" height="664" width="366">

        <operator activated="true" class="extract_performance" compatibility="5.3.000" expanded="true"
height="76" name="Performance (2)" width="90" x="246" y="165">

            <parameter key="statistics" value="max"/>

            <parameter key="attribute_name" value="AI"/>

        </operator>

        <connect from_port="example set" to_op="Performance (2)" to_port="example set"/>

        <connect from_op="Performance (2)" from_port="performance" to_port="performance"/>

        <portSpacing port="source_example set" spacing="0"/>

        <portSpacing port="source_input 1" spacing="0"/>

        <portSpacing port="sink_performance" spacing="0"/>

    </process>

</operator>

<connect from_port="input 1" to_op="Read Excel" to_port="file"/>

<connect from_op="Read Excel" from_port="output" to_op="Optimize Weights (PSO)"
to_port="example set"/>

<connect from_op="Optimize Weights (PSO)" from_port="weights" to_port="result 1"/>

<portSpacing port="source_input 1" spacing="0"/>

<portSpacing port="source_input 2" spacing="0"/>

<portSpacing port="sink_result 1" spacing="0"/>

<portSpacing port="sink_result 2" spacing="0"/>

</process>

```

LAMPIRAN C

C-1. DATASET GLASS

RI	Na	Mg	K	Ba	Fe	class
1,521	13,640	4,490	0,060	0,175	0,057	Y1
1,518	13,890	3,600	0,480	0,175	0,057	Y1
1,516	13,530	3,550	0,390	0,175	0,057	Y1
1,518	13,210	3,690	0,570	0,175	0,057	Y1
1,517	13,270	3,620	0,550	0,175	0,057	Y1
1,516	12,790	3,610	0,640	0,175	0,260	Y1
1,517	13,300	3,600	0,580	0,175	0,057	Y1
1,518	13,150	3,610	0,570	0,175	0,057	Y1
1,519	14,040	3,580	0,560	0,175	0,057	Y1
1,518	13,000	3,600	0,570	0,175	0,110	Y1
1,516	12,720	3,460	0,670	0,175	0,240	Y1
1,518	12,800	3,660	0,600	0,175	0,057	Y1
1,516	12,880	3,430	0,690	0,175	0,240	Y1
1,517	12,860	3,560	0,540	0,175	0,170	Y1
1,518	12,610	3,590	0,580	0,175	0,057	Y1
1,518	12,810	3,540	0,580	0,175	0,057	Y1
1,518	12,680	3,670	0,610	0,175	0,057	Y1
1,522	14,360	3,850	0,150	0,175	0,057	Y1
1,519	13,900	3,730	0,060	0,175	0,057	Y1
1,517	13,020	3,540	0,540	0,175	0,070	Y1
1,518	12,820	3,550	0,540	0,175	0,190	Y1
1,520	14,770	3,750	0,030	0,175	0,057	Y1
1,517	12,780	3,620	0,590	0,175	0,057	Y1
1,518	12,810	3,570	0,620	0,175	0,057	Y1
1,517	13,380	3,500	0,500	0,175	0,057	Y1
1,518	12,980	3,540	0,650	0,175	0,057	Y1
1,518	13,210	3,480	0,590	0,175	0,057	Y1
1,517	12,870	3,480	0,560	0,175	0,057	Y1
1,518	12,560	3,520	0,570	0,175	0,057	Y1
1,518	13,080	3,490	0,600	0,175	0,057	Y1
1,518	12,650	3,560	0,610	0,175	0,140	Y1
1,517	12,840	3,500	0,560	0,175	0,057	Y1
1,518	12,850	3,480	0,610	0,090	0,220	Y1
1,518	12,570	3,470	0,600	0,175	0,060	Y1
1,518	12,690	3,540	0,570	0,175	0,057	Y1
1,516	13,290	3,450	0,560	0,175	0,057	Y1
1,519	13,890	3,530	0,510	0,110	0,057	Y1

1,518	12,740	3,480	0,640	0,175	0,057	Y1
1,522	14,210	3,820	0,110	0,175	0,057	Y1
1,522	14,210	3,820	0,110	0,175	0,057	Y1
1,518	12,790	3,500	0,640	0,175	0,057	Y1
1,518	12,710	3,420	0,590	0,175	0,057	Y1
1,518	13,210	3,390	0,590	0,175	0,057	Y1
1,522	13,730	3,840	0,170	0,175	0,057	Y1
1,518	12,730	3,430	0,620	0,175	0,300	Y1
1,519	13,490	3,480	0,550	0,175	0,057	Y1
1,519	13,190	3,370	0,570	0,175	0,160	Y1
1,527	13,990	3,700	0,020	0,175	0,100	Y1
1,522	13,210	3,770	0,130	0,175	0,057	Y1
1,519	13,580	3,350	0,590	0,175	0,057	Y1
1,523	13,720	3,720	0,090	0,175	0,160	Y1
1,519	13,200	3,330	0,600	0,175	0,110	Y1
1,518	13,430	2,870	0,550	0,175	0,057	Y1
1,518	13,140	2,840	0,550	0,175	0,057	Y1
1,518	13,210	2,810	0,510	0,175	0,090	Y1
1,518	12,450	2,710	0,560	0,175	0,240	Y1
1,512	12,990	3,470	0,620	0,175	0,310	Y1
1,518	12,870	3,480	0,600	0,175	0,057	Y1
1,518	13,480	3,740	0,590	0,175	0,057	Y1
1,518	13,390	3,660	0,570	0,175	0,110	Y1
1,519	13,600	3,620	0,140	0,175	0,057	Y1
1,520	13,810	3,580	0,120	0,690	0,057	Y1
1,522	13,510	3,860	0,230	0,175	0,110	Y1
1,522	14,170	3,810	0,497	0,175	0,057	Y1
1,522	13,480	3,740	0,180	0,175	0,070	Y1
1,521	13,690	3,590	0,090	0,175	0,057	Y1
1,522	13,050	3,650	0,190	0,175	0,170	Y1
1,522	13,050	3,650	0,190	0,175	0,170	Y1
1,522	13,120	3,580	0,230	0,175	0,160	Y1
1,523	13,310	3,580	0,120	0,175	0,030	Y1
1,516	14,860	3,670	0,160	0,175	0,120	Y2
1,518	13,640	3,870	0,540	0,175	0,320	Y2
1,516	13,090	3,590	0,670	0,175	0,057	Y2
1,516	13,340	3,570	0,610	0,175	0,057	Y2
1,516	13,020	3,560	0,720	0,175	0,057	Y2
1,516	13,020	3,580	0,690	0,175	0,057	Y2
1,516	13,440	3,610	0,660	0,175	0,057	Y2
1,516	13,000	3,580	0,610	0,175	0,057	Y2

1,516	13,920	3,520	0,370	0,175	0,140	Y2
1,516	12,820	3,520	0,690	0,175	0,057	Y2
1,516	12,860	3,520	0,690	0,175	0,057	Y2
1,516	13,250	3,450	0,610	0,175	0,057	Y2
1,516	13,410	3,550	0,680	0,175	0,057	Y2
1,516	13,090	3,520	0,680	0,175	0,090	Y2
1,514	14,250	3,090	1,100	0,175	0,057	Y2
1,516	13,360	3,580	0,450	0,175	0,057	Y2
1,516	13,240	3,490	0,380	0,175	0,057	Y2
1,516	13,400	3,490	0,670	0,175	0,100	Y2
1,516	13,010	3,500	0,600	0,175	0,057	Y2
1,516	12,550	3,480	0,630	0,175	0,090	Y2
1,518	12,930	3,740	0,640	0,175	0,220	Y2
1,516	12,900	3,440	0,440	0,175	0,057	Y2
1,516	13,120	3,410	0,070	0,175	0,190	Y2
1,516	13,240	3,340	0,390	0,175	0,057	Y2
1,516	12,710	3,330	0,670	0,175	0,057	Y2
1,519	13,360	3,430	0,510	0,175	0,057	Y2
1,518	13,020	3,620	0,640	0,175	0,150	Y2
1,517	12,200	3,250	0,620	0,175	0,240	Y2
1,517	12,670	2,880	0,730	0,175	0,057	Y2
1,518	12,960	2,960	0,600	0,140	0,057	Y2
1,517	12,750	2,850	0,570	0,110	0,220	Y2
1,517	12,350	2,720	0,700	0,175	0,057	Y2
1,518	12,620	2,760	0,350	0,175	0,200	Y2
1,527	13,800	3,150	0,080	0,175	0,057	Y2
1,524	13,830	2,900	0,080	0,175	0,057	Y2
1,525	11,450	2,685	0,810	0,175	0,340	Y2
1,531	10,730	2,685	0,580	3,150	0,280	Y2
1,534	12,300	2,685	0,120	0,175	0,240	Y2
1,522	14,430	2,685	0,100	0,175	0,080	Y2
1,518	13,720	2,685	0,497	0,175	0,057	Y2
1,527	11,230	2,685	0,497	0,175	0,057	Y2
1,527	11,020	2,685	0,497	0,175	0,057	Y2
1,528	12,640	2,685	0,060	0,175	0,057	Y2
1,519	13,460	3,830	0,570	0,175	0,140	Y2
1,518	13,100	3,970	0,600	0,175	0,057	Y2
1,518	13,410	3,890	0,510	0,175	0,057	Y2
1,518	13,240	3,900	0,550	0,175	0,100	Y2
1,517	13,720	3,680	0,640	0,175	0,057	Y2
1,517	13,300	3,640	0,650	0,175	0,290	Y2

1,517	13,560	3,570	0,640	0,175	0,057	Y2
1,518	13,250	3,760	0,580	0,175	0,057	Y2
1,517	12,930	3,540	0,640	0,175	0,210	Y2
1,517	13,230	3,540	0,560	0,175	0,057	Y2
1,517	13,480	3,480	0,620	0,175	0,057	Y2
1,522	13,200	3,680	0,540	0,175	0,057	Y2
1,519	12,930	3,660	0,580	0,175	0,120	Y2
1,517	12,940	3,610	0,560	0,175	0,057	Y2
1,521	13,780	2,280	0,490	0,175	0,170	Y2
1,521	13,550	2,090	0,530	0,270	0,170	Y2
1,520	13,980	1,350	0,390	0,175	0,180	Y2
1,522	13,750	1,010	0,330	0,175	0,057	Y2
1,526	13,700	2,685	0,190	0,175	0,100	Y2
1,518	13,430	3,980	0,580	0,175	0,057	Y2
1,518	13,710	3,930	0,540	0,175	0,150	Y2
1,518	13,330	3,850	0,520	0,175	0,057	Y2
1,518	13,190	3,900	0,550	0,175	0,280	Y2
1,518	13,000	3,800	0,560	0,175	0,120	Y2
1,517	12,890	3,620	0,610	0,175	0,057	Y2
1,517	12,790	3,520	0,660	0,175	0,057	Y2
1,517	12,870	3,560	0,650	0,175	0,057	Y2
1,517	13,330	3,540	0,680	0,175	0,057	Y2
1,519	13,200	3,630	0,570	0,090	0,170	Y2
1,517	12,850	3,510	0,680	0,060	0,250	Y2
1,517	13,000	3,470	0,660	0,175	0,057	Y2
1,517	12,990	3,180	0,580	0,175	0,240	Y2
1,518	12,850	3,670	0,620	0,175	0,350	Y2
1,518	13,650	3,660	0,110	0,175	0,057	Y3
1,516	13,330	3,530	0,560	0,175	0,057	Y3
1,517	13,240	3,570	0,560	0,175	0,100	Y3
1,516	12,160	3,520	0,570	0,175	0,057	Y3
1,517	13,140	3,450	0,600	0,175	0,170	Y3
1,521	14,320	3,900	0,497	0,175	0,057	Y3
1,518	13,640	3,650	0,060	0,175	0,057	Y3
1,516	13,420	3,400	0,590	0,175	0,057	Y3
1,517	12,860	3,580	0,610	0,175	0,057	Y3
1,516	13,040	3,400	0,520	0,175	0,057	Y3
1,517	13,410	3,390	0,520	0,175	0,057	Y3
1,521	14,030	3,760	0,110	0,175	0,057	Y3
1,518	13,530	3,410	0,580	0,175	0,057	Y3
1,518	13,500	3,360	0,570	0,175	0,090	Y3

1,518	13,330	3,340	0,560	0,175	0,057	Y3
1,519	13,640	3,540	0,160	0,150	0,240	Y3
1,522	14,190	3,780	0,230	0,175	0,370	Y3
1,515	14,010	2,680	1,680	2,200	0,057	Y5
1,519	12,730	1,850	0,600	0,175	0,057	Y5
1,522	11,560	1,880	0,470	0,175	0,057	Y5
1,522	11,030	1,710	0,580	0,175	0,057	Y5
1,520	12,640	2,685	0,380	0,175	0,057	Y5
1,517	12,860	2,685	0,970	0,175	0,057	Y5
1,520	13,270	2,685	0,470	0,175	0,057	Y5
1,524	13,440	2,685	0,320	0,175	0,057	Y5
1,513	13,020	2,685	6,210	0,175	0,057	Y5
1,513	13,000	2,685	6,210	0,175	0,057	Y5
1,520	13,380	2,685	0,330	0,175	0,057	Y5
1,521	12,850	1,610	0,760	0,240	0,510	Y5
1,521	12,970	0,330	0,130	0,175	0,280	Y5
1,519	14,000	2,390	0,497	0,175	0,057	Y6
1,519	13,790	2,410	0,497	0,175	0,057	Y6
1,518	14,460	2,240	0,497	0,175	0,057	Y6
1,519	14,090	2,190	0,497	0,175	0,057	Y6
1,513	14,400	1,740	0,497	0,175	0,057	Y6
1,519	14,990	0,780	0,497	0,175	0,057	Y6
1,519	14,150	2,685	0,497	0,175	0,057	Y6
1,520	14,560	2,685	0,497	0,175	0,057	Y6
1,511	17,380	2,685	0,497	0,175	0,057	Y6
1,511	13,690	3,200	1,760	1,190	0,057	Y7
1,518	14,320	3,260	1,460	1,630	0,057	Y7
1,523	13,440	3,340	0,600	0,175	0,057	Y7
1,522	14,860	2,200	0,760	0,175	0,057	Y7
1,524	15,790	1,830	0,310	1,680	0,057	Y7
1,516	13,880	1,780	0,497	0,760	0,057	Y7
1,516	14,850	2,685	0,497	0,640	0,090	Y7
1,516	14,200	2,685	0,040	0,400	0,090	Y7
1,517	14,750	2,685	0,497	1,590	0,080	Y7
1,517	14,560	2,685	0,497	1,570	0,070	Y7
1,515	14,140	2,685	0,080	0,610	0,050	Y7
1,516	13,870	2,685	0,140	0,810	0,010	Y7
1,517	14,700	2,685	0,497	0,660	0,057	Y7
1,515	14,380	2,685	0,040	0,640	0,057	Y7
1,516	15,010	2,685	0,050	0,530	0,057	Y7
1,515	15,150	2,685	0,497	0,630	0,057	Y7

1,517	11,950	2,685	2,700	0,175	0,057	Y7
1,515	14,850	2,685	0,497	0,560	0,057	Y7
1,517	14,800	2,685	0,497	1,710	0,057	Y7
1,516	14,950	2,685	0,497	0,670	0,057	Y7
1,517	14,950	2,685	0,497	1,550	0,057	Y7
1,516	14,940	2,685	0,497	1,380	0,057	Y7
1,518	14,390	2,685	1,410	2,880	0,057	Y7
1,516	14,370	2,685	0,497	0,540	0,057	Y7
1,516	14,140	2,685	0,080	1,060	0,057	Y7
1,517	14,920	2,685	0,497	1,590	0,057	Y7
1,521	14,360	2,685	0,497	1,640	0,057	Y7
1,517	14,380	2,685	0,497	1,570	0,057	Y7
1,517	14,230	2,685	0,497	1,670	0,057	Y7

C-2. DATASET THYROID

class	T3-resin uptake test	Serum thyroxin	serum triiodothyronine	difference of TSH value
Y1	107	10,1	2,2	2,7
Y1	113	9,9	3,1	5,9
Y1	127	12,9	2,4	0,6
Y1	109	5,3	1,6	1,5
Y1	105	7,3	1,5	-0,1
Y1	105	6,1	2,1	7
Y1	110	10,4	1,6	2,7
Y1	114	9,9	2,4	5,7
Y1	106	9,4	2,2	0
Y1	107	13	1,1	3,1
Y1	106	4,2	1,2	1,4
Y1	110	11,3	2,3	3,3
Y1	116	9,2	2,7	4,2
Y1	112	8,1	1,9	2
Y1	122	9,7	1,6	2,2
Y1	109	8,4	2,1	3,6
Y1	111	8,4	1,5	1,2
Y1	114	6,7	1,5	3,5
Y1	119	10,6	2,1	1,1
Y1	115	7,1	1,3	2
Y1	101	7,8	1,2	1,7
Y1	103	10,1	1,3	0,1

Y1	109	10,4	1,9	-0,1
Y1	102	7,6	1,8	2,5
Y1	121	10,1	1,7	0,1
Y1	100	6,1	2,4	3,8
Y1	106	9,6	2,4	1,3
Y1	116	10,1	2,2	0,8
Y1	105	11,1	2	1
Y1	110	10,4	1,8	2,3
Y1	120	8,4	1,1	1,4
Y1	116	11,1	2	2,3
Y1	110	7,8	1,9	6,4
Y1	90	8,1	1,6	1,1
Y1	117	12,2	1,9	3,9
Y1	117	11	1,4	2,1
Y1	113	9	2	1,6
Y1	106	9,4	1,5	0,5
Y1	130	9,5	1,7	3,2
Y1	100	10,5	2,4	1,9
Y1	121	10,1	2,4	3
Y1	110	9,2	1,6	0,3
Y1	129	11,9	2,7	3,5
Y1	121	13,5	1,5	0,5
Y1	123	8,1	2,3	5,1
Y1	107	8,4	1,8	0,8
Y1	109	10	1,3	4,3
Y1	120	6,8	1,9	1,9
Y1	100	9,5	2,5	-0,2
Y1	118	8,1	1,9	13,7
Y1	100	11,3	2,5	-0,3
Y1	103	12,2	1,2	2,7
Y1	115	8,1	1,7	2,2
Y1	119	8	2	3,2
Y1	106	9,4	1,7	3,1
Y1	114	10,9	2,1	1,4
Y1	93	8,9	1,5	2,7
Y1	120	10,4	2,1	1,8
Y1	106	11,3	1,8	1
Y1	110	8,7	1,9	4,4
Y1	103	8,1	1,4	3,8
Y1	101	7,1	2,2	2,2
Y1	115	10,4	1,8	2

Y1	116	10	1,7	4,3
Y1	117	9,2	1,9	6,8
Y1	106	6,7	1,5	3,9
Y1	118	10,5	2,1	3,5
Y1	97	7,8	1,3	0,9
Y1	113	11,1	1,7	2,3
Y1	104	6,3	2	4
Y1	96	9,4	1,5	3,1
Y1	120	12,4	2,4	1,9
Y1	133	9,7	2,9	1,9
Y1	126	9,4	2,3	4
Y1	113	8,5	1,8	0,5
Y1	109	9,7	1,4	2,1
Y1	119	12,9	1,5	3,6
Y1	101	7,1	1,6	1,6
Y1	108	10,4	2,1	2,4
Y1	117	6,7	2,2	6,7
Y1	115	15,3	2,3	2
Y1	91	8	1,7	4,6
Y1	103	8,5	1,8	1,1
Y1	98	9,1	1,4	-0,3
Y1	111	7,8	2	4,1
Y1	107	13	1,5	1,7
Y1	119	11,4	2,3	1,6
Y1	122	11,8	2,7	2,3
Y1	105	8,1	2	-0,5
Y1	109	7,6	1,3	1,9
Y1	105	9,5	1,8	3,6
Y1	112	5,9	1,7	1,3
Y1	112	9,5	2	0,7
Y1	98	8,6	1,6	6
Y1	109	12,4	2,3	0,8
Y1	114	9,1	2,6	1,5
Y1	114	11,1	2,4	-0,3
Y1	110	8,4	1,4	1,9
Y1	120	7,1	1,2	4,3
Y1	108	10,9	1,2	1
Y1	108	8,7	1,2	2,5
Y1	116	11,9	1,8	1,5
Y1	113	11,5	1,5	2,9
Y1	105	7	1,5	4,3

Y1	114	8,4	1,6	-0,2
Y1	114	8,1	1,6	0,5
Y1	105	11,1	1,1	1,2
Y1	107	13,8	1,5	1,9
Y1	116	11,5	1,8	5,4
Y1	102	9,5	1,4	1,6
Y1	116	16,1	0,9	1,5
Y1	118	10,6	1,8	3
Y1	109	8,9	1,7	0,9
Y1	110	7	1	4,3
Y1	104	9,6	1,1	0,8
Y1	105	8,7	1,5	1,5
Y1	102	8,5	1,2	1,4
Y1	112	6,8	1,7	3,3
Y1	111	8,5	1,6	3,9
Y1	111	8,5	1,6	7,7
Y1	103	7,3	1	0,5
Y1	98	10,4	1,6	-0,7
Y1	117	7,8	2	3,9
Y1	111	9,1	1,7	4,1
Y1	101	6,3	1,5	2,9
Y1	106	8,9	0,7	2,3
Y1	102	8,4	1,5	2,4
Y1	115	10,6	0,8	4,6
Y1	130	10	1,6	4,6
Y1	101	6,7	1,3	5,7
Y1	110	6,3	1	1
Y1	103	9,5	2,9	-0,1
Y1	113	7,8	2	3
Y1	112	10,6	1,6	-0,1
Y1	118	6,5	1,2	1,7
Y1	109	9,2	1,8	4,4
Y1	116	7,8	1,4	3,7
Y1	127	7,7	1,8	6,4
Y1	108	6,5	1	1,5
Y1	108	7,1	1,3	2,2
Y1	105	5,7	1	0,9
Y1	98	5,7	0,4	2,8
Y1	112	6,5	1,2	2
Y1	118	12,2	1,5	2,3
Y1	94	7,5	1,2	4,4

Y1	126	10,4	1,7	3,5
Y1	114	7,5	1,1	4,4
Y1	111	11,9	2,3	3,8
Y1	104	6,1	1,8	0,8
Y1	102	6,6	1,2	1,3
Y2	139	16,4	3,8	-0,2
Y2	111	16	2,1	-0,1
Y2	113	17,2	1,8	0
Y2	65	25,3	5,8	0,2
Y2	88	24,1	5,5	0,1
Y2	65	18,2	10	0,1
Y2	134	16,4	4,8	0,1
Y2	110	20,3	3,7	0,2
Y2	67	23,3	7,4	-0,6
Y2	95	11,1	2,7	-0,3
Y2	89	14,3	4,1	0,2
Y2	89	23,8	5,4	0,1
Y2	88	12,9	2,7	0,2
Y2	105	17,4	1,6	0,4
Y2	89	20,1	7,3	-0,2
Y2	99	13	3,6	-0,1
Y2	80	23	10	-0,1
Y2	89	21,8	7,1	-0,1
Y2	99	13	3,1	-0,1
Y2	68	14,7	7,8	-0,2
Y2	97	14,2	3,6	0,3
Y2	84	21,5	2,7	-0,6
Y2	84	18,5	4,4	-0,3
Y2	98	16,7	4,3	0,2
Y2	94	20,5	1,8	-0,5
Y2	99	17,5	1,9	0,3
Y2	76	25,3	4,5	-0,1
Y2	110	15,2	1,9	-0,2
Y2	144	22,3	3,3	0,6
Y2	105	12	3,3	0
Y2	88	16,5	4,9	0,1
Y2	97	15,1	1,8	-0,2
Y2	106	13,4	3	0
Y2	79	19	5,5	0,3
Y2	92	11,1	2	-0,2
Y3	125	2,3	0,9	9,5

Y3	120	6,8	2,1	38,6
Y3	108	3,5	0,6	1,4
Y3	120	3	2,5	4,5
Y3	119	3,8	1,1	5,7
Y3	141	5,6	1,8	14,4
Y3	129	1,5	0,6	2,9
Y3	118	3,6	1,5	48,8
Y3	120	1,9	0,7	24
Y3	119	0,8	0,7	21,6
Y3	123	5,6	1,1	56,3
Y3	115	6,3	1,2	14,4
Y3	126	0,5	0,2	8,8
Y3	121	4,7	1,8	53
Y3	131	2,7	0,8	4,7
Y3	134	2	0,5	2,2
Y3	141	2,5	1,3	7,5
Y3	113	5,1	0,7	19,6
Y3	136	1,4	0,3	8,4
Y3	120	3,4	1,8	21,5
Y3	125	3,7	1,1	25,9
Y3	123	1,9	0,3	22,2
Y3	112	2,6	0,7	19
Y3	134	1,9	0,6	8,2
Y3	119	5,1	1,1	40,8
Y3	118	6,5	1,3	11,5
Y3	139	4,2	0,7	6,3
Y3	103	5,1	1,4	5
Y3	97	4,7	1,1	12,6
Y3	102	5,3	1,4	6,7

C-3. DATASET WINE

class	alcohol	Malic acid	ash	alcalinity of ash	Magnesium	total phenols	flavanoids	nonflavanoid phenols	Proanthocyanins	color intensity	diluted wines	proline
Y1	14,23	1,71	2,43	15,6	127	2,8	3,06	0,28	2,29	5,64	3,92	1065
Y1	13,2	1,78	2,14	11,2	100	2,65	2,76	0,26	1,28	4,38	3,4	1050
Y1	13,16	2,36	2,67	18,6	101	2,8	3,24	0,3	2,81	5,68	3,17	1185
Y1	14,37	1,95	2,5	16,8	113	3,85	3,49	0,24	2,18	7,8	3,45	1480
Y1	13,24	2,59	2,87	21	118	2,8	2,69	0,39	1,82	4,32	2,93	735
Y1	14,2	1,76	2,45	15,2	112	3,27	3,39	0,34	1,97	6,75	2,85	1450
Y1	14,39	1,87	2,45	14,6	96	2,5	2,52	0,3	1,98	5,25	3,58	1290
Y1	14,06	2,15	2,61	17,6	121	2,6	2,51	0,31	1,25	5,05	3,58	1295
Y1	14,83	1,64	2,17	14	97	2,8	2,98	0,29	1,98	5,2	2,85	1045
Y1	13,86	1,35	2,27	16	98	2,98	3,15	0,22	1,85	7,22	3,55	1045
Y1	14,1	2,16	2,3	18	105	2,95	3,32	0,22	2,38	5,75	3,17	1510
Y1	14,12	1,48	2,32	16,8	95	2,2	2,43	0,26	1,57	5	2,82	1280
Y1	13,75	1,73	2,41	16	89	2,6	2,76	0,29	1,81	5,6	2,9	1320
Y1	14,75	1,73	2,39	11,4	91	3,1	3,69	0,43	2,81	5,4	2,73	1150
Y1	14,38	1,87	2,38	12	102	3,3	3,64	0,29	2,96	7,5	3	1547
Y1	13,63	1,81	2,7	17,2	112	2,85	2,91	0,3	1,46	7,3	2,88	1310
Y1	14,3	1,92	2,72	20	120	2,8	3,14	0,33	1,97	6,2	2,65	1280
Y1	13,83	1,57	2,62	20	115	2,95	3,4	0,4	1,72	6,6	2,57	1130
Y1	14,19	1,59	2,48	16,5	108	3,3	3,93	0,32	1,86	8,7	2,82	1680
Y1	13,64	3,1	2,56	15,2	116	2,7	3,03	0,17	1,66	5,1	3,36	845
Y1	14,06	1,63	2,28	16	126	3	3,17	0,24	2,1	5,65	3,71	780
Y1	12,93	3,8	2,65	18,6	102	2,41	2,41	0,25	1,98	4,5	3,52	770
Y1	13,71	1,86	2,36	16,6	101	2,61	2,88	0,27	1,69	3,8	4	1035
Y1	12,85	1,6	2,52	17,8	95	2,48	2,37	0,26	1,46	3,93	3,63	1015
Y1	13,5	1,81	2,61	20	96	2,53	2,61	0,28	1,66	3,52	3,82	845
Y1	13,05	2,05	3,22	25	124	2,63	2,68	0,47	1,92	3,58	3,2	830
Y1	13,39	1,77	2,62	16,1	93	2,85	2,94	0,34	1,45	4,8	3,22	1195
Y1	13,3	1,72	2,14	17	94	2,4	2,19	0,27	1,35	3,95	2,77	1285
Y1	13,87	1,9	2,8	19,4	107	2,95	2,97	0,37	1,76	4,5	3,4	915
Y1	14,02	1,68	2,21	16	96	2,65	2,33	0,26	1,98	4,7	3,59	1035
Y1	13,73	1,5	2,7	22,5	101	3	3,25	0,29	2,38	5,7	2,71	1285
Y1	13,58	1,66	2,36	19,1	106	2,86	3,19	0,22	1,95	6,9	2,88	1515
Y1	13,68	1,83	2,36	17,2	104	2,42	2,69	0,42	1,97	3,84	2,87	990
Y1	13,76	1,53	2,7	19,5	132	2,95	2,74	0,5	1,35	5,4	3	1235
Y1	13,51	1,8	2,65	19	110	2,35	2,53	0,29	1,54	4,2	2,87	1095
Y1	13,48	1,81	2,41	20,5	100	2,7	2,98	0,26	1,86	5,1	3,47	920
Y1	13,28	1,64	2,84	15,5	110	2,6	2,68	0,34	1,36	4,6	2,78	880

Y1	13,05	1,65	2,55	18	98	2,45	2,43	0,29	1,44	4,25	2,51	1105
Y1	13,07	1,5	2,1	15,5	98	2,4	2,64	0,28	1,37	3,7	2,69	1020
Y1	14,22	3,99	2,51	13,2	128	3	3,04	0,2	2,08	5,1	3,53	760
Y1	13,56	1,71	2,31	16,2	117	3,15	3,29	0,34	2,34	6,13	3,38	795
Y1	13,41	3,84	2,12	18,8	90	2,45	2,68	0,27	1,48	4,28	3	1035
Y1	13,88	1,89	2,59	15	101	3,25	3,56	0,17	1,7	5,43	3,56	1095
Y1	13,24	3,98	2,29	17,5	103	2,64	2,63	0,32	1,66	4,36	3	680
Y1	13,05	1,77	2,1	17	107	3	3	0,28	2,03	5,04	3,35	885
Y1	14,21	4,04	2,44	18,9	111	2,85	2,65	0,3	1,25	5,24	3,33	1080
Y1	14,38	3,59	2,28	16	102	3,25	3,17	0,27	2,19	4,9	3,44	1065
Y1	13,9	1,68	2,12	16	101	3,1	3,39	0,21	2,14	6,1	3,33	985
Y1	14,1	2,02	2,4	18,8	103	2,75	2,92	0,32	2,38	6,2	2,75	1060
Y1	13,94	1,73	2,27	17,4	108	2,88	3,54	0,32	2,08	8,9	3,1	1260
Y1	13,05	1,73	2,04	12,4	92	2,72	3,27	0,17	2,91	7,2	2,91	1150
Y1	13,83	1,65	2,6	17,2	94	2,45	2,99	0,22	2,29	5,6	3,37	1265
Y1	13,82	1,75	2,42	14	111	3,88	3,74	0,32	1,87	7,05	3,26	1190
Y1	13,77	1,9	2,68	17,1	115	3	2,79	0,39	1,68	6,3	2,93	1375
Y1	13,74	1,67	2,25	16,4	118	2,6	2,9	0,21	1,62	5,85	3,2	1060
Y1	13,56	1,73	2,46	20,5	116	2,96	2,78	0,2	2,45	6,25	3,03	1120
Y1	14,22	1,7	2,3	16,3	118	3,2	3	0,26	2,03	6,38	3,31	970
Y1	13,29	1,97	2,68	16,8	102	3	3,23	0,31	1,66	6	2,84	1270
Y1	13,72	1,43	2,5	16,7	108	3,4	3,67	0,19	2,04	6,8	2,87	1285
Y2	12,37	0,94	1,36	10,6	88	1,98	0,57	0,28	0,42	1,95	1,82	520
Y2	12,33	1,1	2,28	16	101	2,05	1,09	0,63	0,41	3,27	1,67	680
Y2	12,64	1,36	2,02	16,8	100	2,02	1,41	0,53	0,62	5,75	1,59	450
Y2	13,67	1,25	1,92	18	94	2,1	1,79	0,32	0,73	3,8	2,46	630
Y2	12,37	1,13	2,16	19	87	3,5	3,1	0,19	1,87	4,45	2,87	420
Y2	12,17	1,45	2,53	19	104	1,89	1,75	0,45	1,03	2,95	2,23	355
Y2	12,37	1,21	2,56	18,1	98	2,42	2,65	0,37	2,08	4,6	2,3	678
Y2	13,11	1,01	1,7	15	78	2,98	3,18	0,26	2,28	5,3	3,18	502
Y2	12,37	1,17	1,92	19,6	78	2,11	2	0,27	1,04	4,68	3,48	510
Y2	13,34	0,94	2,36	17	110	2,53	1,3	0,55	0,42	3,17	1,93	750
Y2	12,21	1,19	1,75	16,8	151	1,85	1,28	0,14	2,5	2,85	3,07	718
Y2	12,29	1,61	2,21	20,4	103	1,1	1,02	0,37	1,46	3,05	1,82	870
Y2	13,86	1,51	2,67	25	86	2,95	2,86	0,21	1,87	3,38	3,16	410
Y2	13,49	1,66	2,24	24	87	1,88	1,84	0,27	1,03	3,74	2,78	472
Y2	12,99	1,67	2,6	30	139	3,3	2,89	0,21	1,96	3,35	3,5	985
Y2	11,96	1,09	2,3	21	101	3,38	2,14	0,13	1,65	3,21	3,13	886
Y2	11,66	1,88	1,92	16	97	1,61	1,57	0,34	1,15	3,8	2,14	428
Y2	13,03	0,9	1,71	16	86	1,95	2,03	0,24	1,46	4,6	2,48	392
Y2	11,84	2,89	2,23	18	112	1,72	1,32	0,43	0,95	2,65	2,52	500

Y2	12,33	0,99	1,95	14,8	136	1,9	1,85	0,35	2,76	3,4	2,31	750
Y2	12,7	3,87	2,4	23	101	2,83	2,55	0,43	1,95	2,57	3,13	463
Y2	12	0,92	2	19	86	2,42	2,26	0,3	1,43	2,5	3,12	278
Y2	12,72	1,81	2,2	18,8	86	2,2	2,53	0,26	1,77	3,9	3,14	714
Y2	12,08	1,13	2,51	24	78	2	1,58	0,4	1,4	2,2	2,72	630
Y2	13,05	3,86	2,32	22,5	85	1,65	1,59	0,61	1,62	4,8	2,01	515
Y2	11,84	0,89	2,58	18	94	2,2	2,21	0,22	2,35	3,05	3,08	520
Y2	12,67	0,98	2,24	18	99	2,2	1,94	0,3	1,46	2,62	3,16	450
Y2	12,16	1,61	2,31	22,8	90	1,78	1,69	0,43	1,56	2,45	2,26	495
Y2	11,65	1,67	2,62	26	88	1,92	1,61	0,4	1,34	2,6	3,21	562
Y2	11,64	2,06	2,46	21,6	84	1,95	1,69	0,48	1,35	2,8	2,75	680
Y2	12,08	1,33	2,3	23,6	70	2,2	1,59	0,42	1,38	1,74	3,21	625
Y2	12,08	1,83	2,32	18,5	81	1,6	1,5	0,52	1,64	2,4	2,27	480
Y2	12	1,51	2,42	22	86	1,45	1,25	0,5	1,63	3,6	2,65	450
Y2	12,69	1,53	2,26	20,7	80	1,38	1,46	0,58	1,62	3,05	2,06	495
Y2	12,29	2,83	2,22	18	88	2,45	2,25	0,25	1,99	2,15	3,3	290
Y2	11,62	1,99	2,28	18	98	3,02	2,26	0,17	1,35	3,25	2,96	345
Y2	12,47	1,52	2,2	19	162	2,5	2,27	0,32	3,28	2,6	2,63	937
Y2	11,81	2,12	2,74	21,5	134	1,6	0,99	0,14	1,56	2,5	2,26	625
Y2	12,29	1,41	1,98	16	85	2,55	2,5	0,29	1,77	2,9	2,74	428
Y2	12,37	1,07	2,1	18,5	88	3,52	3,75	0,24	1,95	4,5	2,77	660
Y2	12,29	3,17	2,21	18	88	2,85	2,99	0,45	2,81	2,3	2,83	406
Y2	12,08	2,08	1,7	17,5	97	2,23	2,17	0,26	1,4	3,3	2,96	710
Y2	12,6	1,34	1,9	18,5	88	1,45	1,36	0,29	1,35	2,45	2,77	562
Y2	12,34	2,45	2,46	21	98	2,56	2,11	0,34	1,31	2,8	3,38	438
Y2	11,82	1,72	1,88	19,5	86	2,5	1,64	0,37	1,42	2,06	2,44	415
Y2	12,51	1,73	1,98	20,5	85	2,2	1,92	0,32	1,48	2,94	3,57	672
Y2	12,42	2,55	2,27	22	90	1,68	1,84	0,66	1,42	2,7	3,3	315
Y2	12,25	1,73	2,12	19	80	1,65	2,03	0,37	1,63	3,4	3,17	510
Y2	12,72	1,75	2,28	22,5	84	1,38	1,76	0,48	1,63	3,3	2,42	488
Y2	12,22	1,29	1,94	19	92	2,36	2,04	0,39	2,08	2,7	3,02	312
Y2	11,61	1,35	2,7	20	94	2,74	2,92	0,29	2,49	2,65	3,26	680
Y2	11,46	3,74	1,82	19,5	107	3,18	2,58	0,24	3,58	2,9	2,81	562
Y2	12,52	2,43	2,17	21	88	2,55	2,27	0,26	1,22	2	2,78	325
Y2	11,76	2,68	2,92	20	103	1,75	2,03	0,6	1,05	3,8	2,5	607
Y2	11,41	0,74	2,5	21	88	2,48	2,01	0,42	1,44	3,08	2,31	434
Y2	12,08	1,39	2,5	22,5	84	2,56	2,29	0,43	1,04	2,9	3,19	385
Y2	11,03	1,51	2,2	21,5	85	2,46	2,17	0,52	2,01	1,9	2,87	407
Y2	11,82	1,47	1,99	20,8	86	1,98	1,6	0,3	1,53	1,95	3,33	495
Y2	12,42	1,61	2,19	22,5	108	2	2,09	0,34	1,61	2,06	2,96	345
Y2	12,77	3,43	1,98	16	80	1,63	1,25	0,43	0,83	3,4	2,12	372

Y2	12	3,43	2	19	87	2	1,64	0,37	1,87	1,28	3,05	564
Y2	11,45	2,4	2,42	20	96	2,9	2,79	0,32	1,83	3,25	3,39	625
Y2	11,56	2,05	3,23	28,5	119	3,18	5,08	0,47	1,87	6	3,69	465
Y2	12,42	4,43	2,73	26,5	102	2,2	2,13	0,43	1,71	2,08	3,12	365
Y2	13,05	5,8	2,13	21,5	86	2,62	2,65	0,3	2,01	2,6	3,1	380
Y2	11,87	4,31	2,39	21	82	2,86	3,03	0,21	2,91	2,8	3,64	380
Y2	12,07	2,16	2,17	21	85	2,6	2,65	0,37	1,35	2,76	3,28	378
Y2	12,43	1,53	2,29	21,5	86	2,74	3,15	0,39	1,77	3,94	2,84	352
Y2	11,79	2,13	2,78	28,5	92	2,13	2,24	0,58	1,76	3	2,44	466
Y2	12,37	1,63	2,3	24,5	88	2,22	2,45	0,4	1,9	2,12	2,78	342
Y2	12,04	4,3	2,38	22	80	2,1	1,75	0,42	1,35	2,6	2,57	580
Y3	12,86	1,35	2,32	18	122	1,51	1,25	0,21	0,94	4,1	1,29	630
Y3	12,88	2,99	2,4	20	104	1,3	1,22	0,24	0,83	5,4	1,42	530
Y3	12,81	2,31	2,4	24	98	1,15	1,09	0,27	0,83	5,7	1,36	560
Y3	12,7	3,55	2,36	21,5	106	1,7	1,2	0,17	0,84	5	1,29	600
Y3	12,51	1,24	2,25	17,5	85	2	0,58	0,6	1,25	5,45	1,51	650
Y3	12,6	2,46	2,2	18,5	94	1,62	0,66	0,63	0,94	7,1	1,58	695
Y3	12,25	4,72	2,54	21	89	1,38	0,47	0,53	0,8	3,85	1,27	720
Y3	12,53	5,51	2,64	25	96	1,79	0,6	0,63	1,1	5	1,69	515
Y3	13,49	3,59	2,19	19,5	88	1,62	0,48	0,58	0,88	5,7	1,82	580
Y3	12,84	2,96	2,61	24	101	2,32	0,6	0,53	0,81	4,92	2,15	590
Y3	12,93	2,81	2,7	21	96	1,54	0,5	0,53	0,75	4,6	2,31	600
Y3	13,36	2,56	2,35	20	89	1,4	0,5	0,37	0,64	5,6	2,47	780
Y3	13,52	3,17	2,72	23,5	97	1,55	0,52	0,5	0,55	4,35	2,06	520
Y3	13,62	4,95	2,35	20	92	2	0,8	0,47	1,02	4,4	2,05	550
Y3	12,25	3,88	2,2	18,5	112	1,38	0,78	0,29	1,14	8,21	2	855
Y3	13,16	3,57	2,15	21	102	1,5	0,55	0,43	1,3	4	1,68	830
Y3	13,88	5,04	2,23	20	80	0,98	0,34	0,4	0,68	4,9	1,33	415
Y3	12,87	4,61	2,48	21,5	86	1,7	0,65	0,47	0,86	7,65	1,86	625
Y3	13,32	3,24	2,38	21,5	92	1,93	0,76	0,45	1,25	8,42	1,62	650
Y3	13,08	3,9	2,36	21,5	113	1,41	1,39	0,34	1,14	9,4	1,33	550
Y3	13,5	3,12	2,62	24	123	1,4	1,57	0,22	1,25	8,6	1,3	500
Y3	12,79	2,67	2,48	22	112	1,48	1,36	0,24	1,26	10,8	1,47	480
Y3	13,11	1,9	2,75	25,5	116	2,2	1,28	0,26	1,56	7,1	1,33	425
Y3	13,23	3,3	2,28	18,5	98	1,8	0,83	0,61	1,87	10,52	1,51	675
Y3	12,58	1,29	2,1	20	103	1,48	0,58	0,53	1,4	7,6	1,55	640
Y3	13,17	5,19	2,32	22	93	1,74	0,63	0,61	1,55	7,9	1,48	725
Y3	13,84	4,12	2,38	19,5	89	1,8	0,83	0,48	1,56	9,01	1,64	480
Y3	12,45	3,03	2,64	27	97	1,9	0,58	0,63	1,14	7,5	1,73	880
Y3	14,34	1,68	2,7	25	98	2,8	1,31	0,53	2,7	13	1,96	660
Y3	13,48	1,67	2,64	22,5	89	2,6	1,1	0,52	2,29	11,75	1,78	620

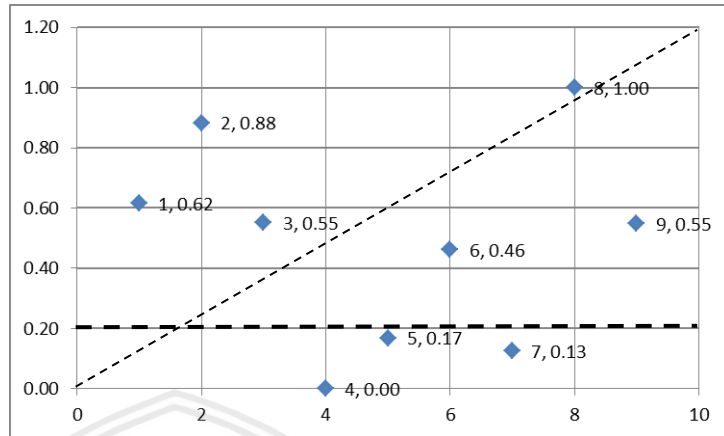
Y3	12,36	3,83	2,38	21	88	2,3	0,92	0,5	1,04	7,65	1,58	520
Y3	13,69	3,26	2,54	20	107	1,83	0,56	0,5	0,8	5,88	1,82	680
Y3	12,85	3,27	2,58	22	106	1,65	0,6	0,6	0,96	5,58	2,11	570
Y3	12,96	3,45	2,35	18,5	106	1,39	0,7	0,4	0,94	5,28	1,75	675
Y3	13,78	2,76	2,3	22	90	1,35	0,68	0,41	1,03	9,58	1,68	615
Y3	13,73	4,36	2,26	22,5	88	1,28	0,47	0,52	1,15	6,62	1,75	520
Y3	13,45	3,7	2,6	23	111	1,7	0,92	0,43	1,46	10,68	1,56	695
Y3	12,82	3,37	2,3	19,5	88	1,48	0,66	0,4	0,97	10,26	1,75	685
Y3	13,58	2,58	2,69	24,5	105	1,55	0,84	0,39	1,54	8,66	1,8	750
Y3	13,4	4,6	2,86	25	112	1,98	0,96	0,27	1,11	8,5	1,92	630
Y3	12,2	3,03	2,32	19	96	1,25	0,49	0,4	0,73	5,5	1,83	510
Y3	12,77	2,39	2,28	19,5	86	1,39	0,51	0,48	0,64	9,899999	1,63	470
Y3	14,16	2,51	2,48	20	91	1,68	0,7	0,44	1,24	9,7	1,71	660
Y3	13,71	5,65	2,45	20,5	95	1,68	0,61	0,52	1,06	7,7	1,74	740
Y3	13,4	3,91	2,48	23	102	1,8	0,75	0,43	1,41	7,3	1,56	750
Y3	13,27	4,28	2,26	20	120	1,59	0,69	0,43	1,35	10,2	1,56	835
Y3	13,17	2,59	2,37	20	120	1,65	0,68	0,53	1,46	9,3	1,62	840
Y3	14,13	4,1	2,74	24,5	96	2,05	0,76	0,56	1,35	9,2	1,6	560



LAMPIRAN D

Tabel D-1 Nilai Atribut Glass

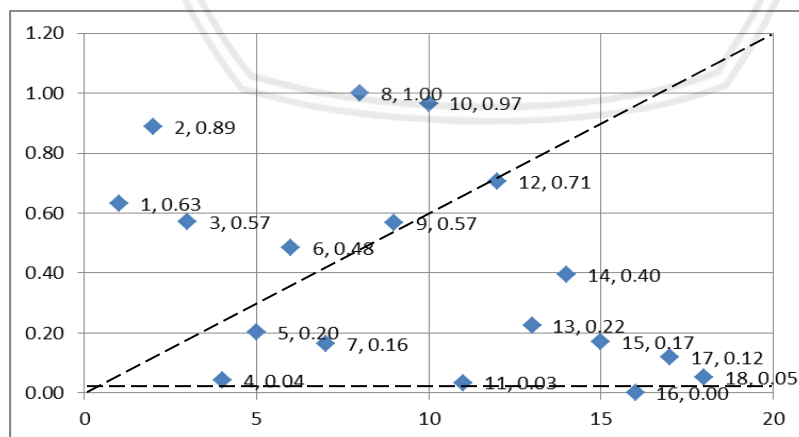
No	Atribut	Nilai
1	RI	0.62
2	Na	0.88
3	Mg	0.55
4	Al	0.00
5	Si	0.17
6	K	0.46
7	Ca	0.13
8	Ba	1.00
9	Fe	0.55



Gambar D-2 Posisi berdasarkan nilai atribut Glass

Tabel D-3 Nilai Atribut Lympografi

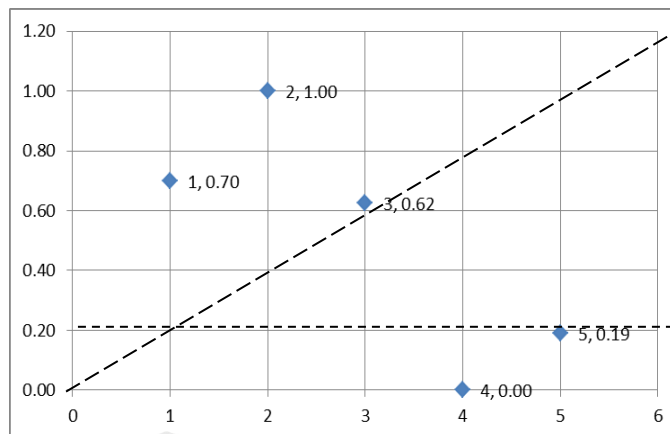
No	Atribut	Nilai	No	Atribut	Nilai
1	Lymphatics	0.63	10	lym nodes enlar	0.97
2	block of affere	0.89	11	changes in lym	0.03
3	bi of lymph	0.57	12	defect in node	0.71
4	bl of lymph	0.04	13	changes in node	0.22
5	by pass	0.20	14	changes in stru	0.40
6	Extravasates	0.48	15	special forms	0.17
7	regeneration of	0.16	16	dislocatio of	0.00
8	early uptake in	1.00	17	exclusion	0.12
9	lym.nodes dimin	0.57	18	no of nodes	0.05



Gambar D-4 Posisi berdasarkan nilai atribut Lympografi

Tabel D-5 Nilai Atribut Thyroid

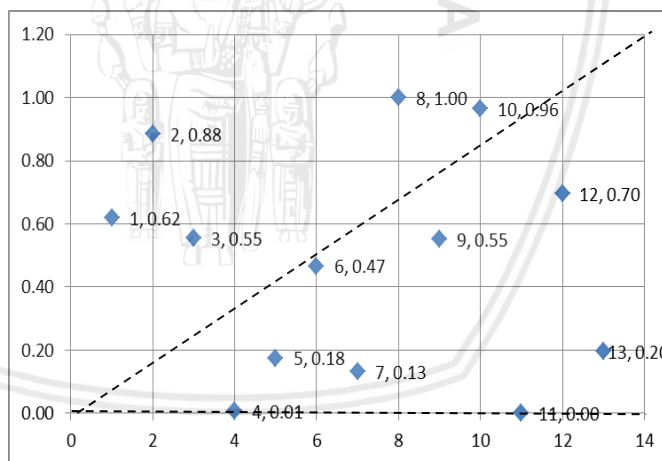
No.	Atribut	Nilai
1	T3-resin uptake test	0.70
2	Serum thyroxin	1.00
3	serum triiodothyronine	0.19
4	thyroid-stimulating hormone (TSH)	0.00
5	difference of TSH value	0.62



Gambar D-6 Posisi berdasarkan nilai atribut *Thyroid*

Tabel D-7 Nilai Atribut Wine

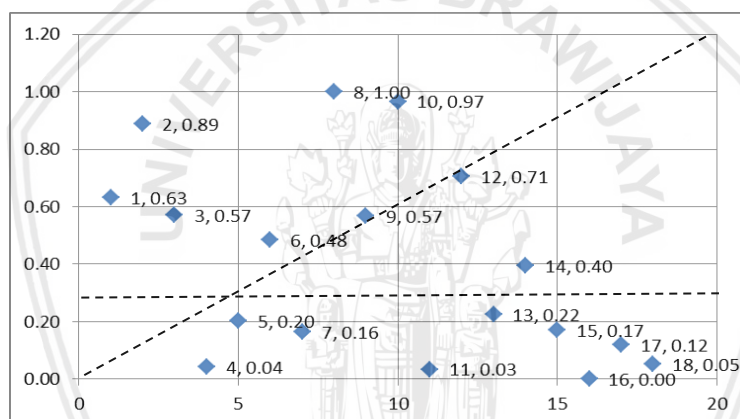
No	Atribut	Nilai
1	alcohol	0.62
2	Malic acid	0.88
3	ash	0.55
4	alcalinity of ash	0.01
5	magnesium	0.18
6	total phenols	0.47
7	flavanoids	0.13
8	nonflavanoid phenols	1.00
9	proanthocyanins	0.55
10	color intensity	0.96
11	hue	0.00
12	diluted wines	0.70
13	proline	0.20



Gambar D-8 Posisi berdasarkan nilai atribut *Wine*

Tabel D-9 Nilai Atribut Vehicle

No	Atribut	Nilai	No	Atribut	Nilai
1	COMPACTNESS	0.63	10	MAX.LENGTH RECTANGULARITY	0.97
2	CIRCULARITY	0.89	11	SCALED VARIANCE	0.03
3	DISTANCE CIRCULARITY	0.57	12	SCALED VARIANCE_1	0.71
4	RADIUS RATIO	0.04	13	SCALED RADIUS OF GYRATION	0.22
5	PR.AXIS ASPECT RATIO	0.20	14	SKEWNESS ABOUT	0.40
6	MAX.LENGTH ASPECT RATIO	0.48	15	SKEWNESS ABOUT_1	0.17
7	SCATTER RATIO	0.16	16	KURTOSIS ABOUT	0.00
8	ELONGATEDNESS	1.00	17	KURTOSIS ABOUT_1	0.12
9	PR.AXIS RECTANGULARITY	0.57	18	HOLLOWS RATIO	0.05



Gambar D-10 Posisi berdasarkan nilai atribut *Vehicle*