

LAMPIRAN A TABEL ANALISIS

A.1 Tabel Hasil Pengujian Variasi Ukuran Data

A1.1 Tabel Hasil Pengujian Variasi Ukuran Data *Fair Share Scheduling*

- Variasi ukuran data = 1,5GB, 256,81MB, 20MB
- Jumlah *job* = 5 *job*
- Jenis *job* = wordCount

<i>JOB</i>	<i>DATASET</i>	STARTED	FINISHED	<i>TIME</i>	<i>FAILED</i>
1	facebook-names-unique.txt (1,5 GB)	07:14:13	07:53:46	39mins, 32sec	2
2	facebook-names-unique.txt (1,5 GB)	07:13:38	07:49:00	35mins, 22sec	4
3	facebook-names-unique.txt (1,5 GB)	07:14:35	07:59:28	44mins, 52sec	1
4	facebook-names-unique.txt (1,5 GB)	07:16:51	08:30:46	1hrs, 13mins, 55sec	0
5	facebook-names-unique.txt (1,5 GB)	07:14:12	08:27:46	1hrs, 13mins, 33sec	3
6	facebook-f.last-withcount.txt (256,81 MB)	15:55:38	16:44:14	48mins, 35sec	0
7	facebook-f.last-withcount.txt (256,81 MB)	15:55:38	16:16:07	20mins, 28sec	2
8	facebook-f.last-withcount.txt (256,81 MB)	15:55:38	16:19:04	23mins, 26sec	1
9	facebook-f.last-withcount.txt (256,81 MB)	15:55:38	16:39:33	43mins, 54sec	0
10	facebook-f.last-withcount.txt (256,81 MB)	15:55:38	16:17:15	21mins, 37sec	3
11	adult.csv (20 MB)	08:37:08	08:49:42	12mins, 34sec	2
12	adult.csv (20 MB)	08:37:08	09:06:27	29mins, 19sec	0
13	adult.csv (20 MB)	08:37:22	08:51:27	14mins, 4sec	1
14	adult.csv (20 MB)	08:37:22	08:50:27	13mins, 4sec	1
15	adult.csv (20 MB)	08:37:09	09:04:24	27mins, 14sec	0

Ukuran Data	Fail rate			Latency	Throughput
	Timeout	Erorr	Fail		
1,5GB	14,5 menit	10	3,45%	53,44 menit	0,47 Mbit/s
256,81MB	9,8 menit	6	2,18%	31,6 menit	0,45 Mbit/s
20MB	5,2 menit	4	1,32%	19,25 menit	0,0072 Mbit/s

A.1.2 Tabel Hasil Pengujian Variasi Ukuran Data *Capacity Scheduling*

JOB	DATASET	STARTED	FINISHED	TIME	FAILED
1	facebook-names-unique.txt (1,5 GB)	7:46:29	8:44:50	58mins, 21sec	2
2	facebook-names-unique.txt (1,5 GB)	7:46:59	9:18:59	1hrs, 32mins	1
3	facebook-names-unique.txt (1,5 GB)	7:46:29	8:30:00	43mins, 31sec	3
4	facebook-names-unique.txt (1,5 GB)	7:50:49	8:56:55	1hrs, 6mins,6sec	2
5	facebook-names-unique.txt (1,5 GB)	7:46:57	9:16:30	1hrs, 29mins, 33sec	0
6	facebook-f.last-withcount.txt (256,81 MB)	21:05:52	21:33:39	27mins, 46sec	2
7	facebook-f.last-withcount.txt (256,81 MB)	21:05:51	21:32:03	26mins,12sec	2
8	facebook-f.last-withcount.txt (256,81 MB)	21:05:53	21:55:29	49mins, 55sec	1
9	facebook-f.last-withcount.txt (256,81 MB)	21:06:03	22:02:31	56mins, 48sec	1
10	facebook-f.last-withcount.txt (256,81 MB)	21:06:03	22:10:42	1hrs, 4mins, 39sec	0
11	adult.csv (20 MB)	14:13:13	14:38:30	25mins, 17sec	2
12	adult.csv (20 MB)	14:13:22	15:05:13	52mins, 0sec	0
13	adult.csv (20 MB)	14:13:14	14:52:45	39mins, 30sec	0

14	adult.csv (20 MB)	14:13:13	14:58:25	45mins, 3 sec	0
15	adult.csv (20 MB)	14:13:13	14:38:20	24mins, 56sec	1

Ukuran Data	<i>Fail rate</i>			<i>Latency</i>	<i>Throughput</i>
	<i>Timeout</i>	Erorr	<i>Fail</i>		
1,5GB	13,5 menit	8	2,95%	69,9 menit	0,36 Mbit/s
256,81MB	6,8 menit	6	1,88%	44,48 menit	0,32 Mbit/s
20MB	3,9 menit	3	0,99%	39,35 menit	0,0035 Mbit/s

A.2 Tabel Hasil Pengujian Variasi Jumlah *Job*

A.2.1 Tabel Hasil Pengujian Variasi Jumlah *Job* Capacity Scheduling

- Variasi jumlah *job* = 5 *job*, 10 *job*, 15 *job*
- Ukuran data = 1,5 GB
- Jenis *job* = wordCount

<i>JOB</i>	<i>DATASET</i>	STARTED	FINISHED	<i>TIME</i>	<i>FAILED</i>
1	facebook-names-unique.txt (1,5 GB)	07:14:13	07:53:46	39mins, 32sec	2
2	facebook-names-unique.txt (1,5 GB)	07:13:38	07:49:00	35mins, 22sec	3
3	facebook-names-unique.txt (1,5 GB)	07:14:35	07:59:28	44mins, 52sec	1
4	facebook-names-unique.txt (1,5 GB)	07:16:51	08:30:46	1hrs, 13mins, 55sec	0
5	facebook-names-unique.txt (1,5 GB)	07:14:12	08:27:46	1hrs, 13mins, 33sec	2
6	facebook-names-unique.txt (1,5 GB)	17:57:46	19:18:59	1hrs, 21mins, 13sec	0
7	facebook-names-unique.txt (1,5 GB)	17:58:12	19:44:05	1hrs, 45mins, 52sec	2
8	facebook-names-unique.txt (1,5 GB)	17:57:18	19:31:17	1hrs, 33mins, 59sec	0
9	facebook-names-unique.txt (1,5 GB)	17:57:27	18:57:50	1hrs, 22sec	1
10	facebook-names-unique.txt (1,5 GB)	17:57:18	19:14:00	1hrs, 6mins, 41sec	3
11	facebook-names-unique.txt (1,5 GB)	17:57:09	18:38:23	41mins, 14sec	4
12	facebook-names-unique.txt (1,5 GB)	17:57:08	18:35:45	38mins, 37sec	2
13	facebook-names-unique.txt (1,5 GB)	17:57:08	18:32:37	35mins, 29sec	2
14	facebook-names-unique.txt (1,5 GB)	17:57:25	19:06:24	1hrs, 8mins, 58sec	2
15	facebook-names-unique.txt (1,5 GB)	17:57:37	19:28:09	1hrs, 30mins, 32sec	1
16	facebook-names-unique.txt (1,5 GB)	15:15:57	16:57:58	1hrs, 42mins, 0sec	1
17	facebook-names-unique.txt (1,5 GB)	15:15:57	16:56:04	1hrs, 40mins, 6sec	2
18	facebook-names-unique.txt (1,5 GB)	15:15:57	17:00:32	1hrs, 44mins, 34sec	1

19	facebook-names-unique.txt (1,5 GB)	15:15:57	17:55:09	2hrs, 39mins, 12sec	1
20	facebook-names-unique.txt (1,5 GB)	15:24:08	16:10:17	46mins, 9sec	3
21	facebook-names-unique.txt (1,5 GB)	15:29:43	16:47:35	1hrs, 17mins, 51sec	2
22	facebook-names-unique.txt (1,5 GB)	15:24:08	16:06:43	42mins, 35sec	3
23	facebook-names-unique.txt (1,5 GB)	15:26:33	18:06:25	2hrs, 39mins, 51sec	0
24	facebook-names-unique.txt (1,5 GB)	15:24:08	16:08:09	44mins, 1sec	4
25	facebook-names-unique.txt (1,5 GB)	15:35:45	18:12:28	2hrs, 36mins, 43sec	0
26	facebook-names-unique.txt (1,5 GB)	15:37:28	16:44:37	1hrs, 7mins, 9sec	2
27	facebook-names-unique.txt (1,5 GB)	15:35:55	16:45:46	1hrs, 9mins, 51sec	2
28	facebook-names-unique.txt (1,5 GB)	15:37:23	17:45:59	2hrs, 8mins, 36sec	1
29	facebook-names-unique.txt (1,5 GB)	15:36:21	17:41:06	2hrs, 4mins, 44sec	2
30	facebook-names-unique.txt (1,5 GB)	15:24:30	17:38:37	2hrs, 4mins, 6sec	2

Jumlah Job	Fail rate			Latency	Throughput
	Timeout	Erorr	Fail		
5 job	10,5 menit	8	2,65%	53,44 menit	0,47 Mbit/s
10 job	25,36 menit	17	2,97%	68,29 menit	0,37 Mbit/s
15 job	36,78 menit	28	3.09%	99,89 menit	0,25 Mbit/s

A.2.2 Tabel Hasil Pengujian Variasi Jumlah *Job* pada *Capacity Scheduling*

<i>JOB</i>	<i>DATASET</i>	STARTED	FINISHED	<i>TIME</i>	<i>FAILED</i>
1	facebook-names-unique.txt (1,5 GB)	7:46:29	8:44:50	58mins, 21sec	2
2	facebook-names-unique.txt (1,5 GB)	7:46:59	9:18:59	1hrs, 32mins, 0sec	1
3	facebook-names-unique.txt (1,5 GB)	7:46:29	8:30:00	43mins, 31sec	2
4	facebook-names-unique.txt (1,5 GB)	7:50:49	8:56:55	1hrs, 6mins,6sec	1
5	facebook-names-unique.txt (1,5 GB)	7:46:57	9:16:30	1hrs, 29mins, 33sec	0
6	facebook-names-unique.txt (1,5 GB)	21:50:00	23:12:55	1hrs, 22mins, 54sec	2
7	facebook-names-unique.txt (1,5 GB)	21:50:09	23:59:19	2hrs, 9mins, 10sec	1
8	facebook-names-unique.txt (1,5 GB)	21:50:09	23:54:31	2hrs, 4mins, 21sec	2
9	facebook-names-unique.txt (1,5 GB)	21:50:00	23:39:29	1hrs, 49mins, 28sec	1
10	facebook-names-unique.txt (1,5 GB)	21:50:00	23:39:16	1hrs, 49mins, 15sec	1
11	facebook-names-unique.txt (1,5 GB)	21:50:15	0:05:22	2hrs, 15mins, 6sec	0
12	facebook-names-unique.txt (1,5 GB)	21:49:39	22:39:24	49mins, 45sec	2
13	facebook-names-unique.txt (1,5 GB)	21:49:48	22:41:24	51mins, 36sec	3
14	facebook-names-unique.txt (1,5 GB)	21:49:48	0:15:10	2hrs, 25mins, 22sec	0
15	facebook-names-unique.txt (1,5 GB)	21:50:15	22:36:32	46mins, 17sec	2
16	facebook-names-unique.txt (1,5 GB)	6:30:47	8:29:45	1hrs, 58mins, 57sec	2
17	facebook-names-unique.txt (1,5 GB)	6:31:15	8:22:57	1hrs, 51mins, 42sec	1
18	facebook-names-unique.txt (1,5 GB)	6:29:38	7:36:47	1hrs, 7mins, 8sec	3
19	facebook-names-unique.txt (1,5 GB)	6:33:35	9:27:25	2hrs, 53mins, 49sec	0
20	facebook-names-unique.txt (1,5 GB)	6:30:01	8:01:41	1hrs, 31mins, 40sec	1

21	facebook-names-unique.txt (1,5 GB)	6:32:35	9:11:49	2hrs, 39mins, 14sec	0
22	facebook-names-unique.txt (1,5 GB)	6:32:35	8:50:44	2hrs, 18mins, 8sec	1
23	facebook-names-unique.txt (1,5 GB)	6:34:10	9:31:18	2hrs, 57mins, 8sec	0
24	facebook-names-unique.txt (1,5 GB)	6:33:30	9:10:40	2hrs, 37mins, 10sec	1
25	facebook-names-unique.txt (1,5 GB)	6:31:31	8:47:53	2hrs, 16mins, 21sec	1
26	facebook-names-unique.txt (1,5 GB)	6:30:22	8:00:51	1hrs, 30mins, 28sec	2
27	facebook-names-unique.txt (1,5 GB)	6:29:02	7:44:05	1hrs, 15mins, 2sec	4
28	facebook-names-unique.txt (1,5 GB)	6:28:58	7:15:35	46mins, 37sec	3
29	facebook-names-unique.txt (1,5 GB)	6:42:01	9:56:44	3hrs, 14mins, 43sec	2
30	facebook-names-unique.txt (1,5 GB)	6:27:36	7:07:36	42mins, 22sec	3

Jumlah Job	Fail rate			Latency	Throughput
	Timeout	Erorr	Fail		
5 job	8,5 menit	6	2,05%	69,9 menit	0,36 Mbit/s
10 job	22,8 menit	15	2,64%	98,32 menit	0,25 Mbit/s
15 job	34,25 menit	24	2,74%	118,69 menit	0,21 Mbit/s

A.3 Tabel Hasil Pengujian Variasi Jenis *Job*

A.3.1 Tabel Hasil Pengujian Variasi Jenis *Job Fair Share Scheduling*

- Variasi jenis *job* = wordcount dan wordmean
- Ukuran data = 1,5 GB
- Jumlah *job* = 5 *job*

<i>JOB</i>	<i>DATASET</i>	<i>JENIS JOB</i>	<i>STARTED</i>	<i>FINISHED</i>	<i>TIME</i>	<i>FAILED</i>
1	facebook-names-unique.txt (1,5 GB)	wordcount	07:14:13	07:53:46	39mins, 32sec	2
2	facebook-names-unique.txt (1,5 GB)	wordcount	07:13:38	07:49:00	35mins, 22sec	4
3	facebook-names-unique.txt (1,5 GB)	wordcount	07:14:35	07:59:28	44mins, 52sec	1
4	facebook-names-unique.txt (1,5 GB)	wordcount	07:16:51	08:30:46	1hrs, 13mins, 55sec	0
5	facebook-names-unique.txt (1,5 GB)	wordcount	07:14:12	08:27:46	1hrs, 13mins, 33sec	3
6	facebook-names-unique.txt (1,5 GB)	wordmean	16:33:19	17:42:17	1hrs, 8mins, 57sec	3
7	facebook-names-unique.txt (1,5 GB)	wordmean	16:33:18	17:05:07	31mins, 49sec	0
8	facebook-names-unique.txt (1,5 GB)	wordmean	16:33:19	17:11:32	38mins, 12sec	1
9	facebook-names-unique.txt (1,5 GB)	wordmean	16:33:18	17:13:27	40mins, 8sec	5
10	facebook-names-unique.txt (1,5 GB)	wordmean	16:33:20	17:45:17	1hrs, 11mins, 56sec	0

<i>Jenis Job</i>	<i>Fail rate</i>			<i>Latency</i>	<i>Throughput</i>
	<i>Timeout</i>	<i>Erorr</i>	<i>Fail</i>		
WordCount	14,5 menit	10	3,45%	53,44 menit	0,47 Mbit/s
WordMean	11,2 menit	9	2,92%	50,2 menit	0,00011 Mbit/s

A.3.2 Tabel Hasil Pengujian Variasi Jenis *Job Capacity Scheduling*

<i>JOB</i>	<i>DATASET</i>	<i>JENIS JOB</i>	<i>STARTED</i>	<i>FINISHED</i>	<i>TIME</i>	<i>FAILED</i>
1	facebook-names-unique.txt (1,5 GB)	wordcount	7:46:29	8:44:50	58mins, 21sec	2
2	facebook-names-unique.txt (1,5 GB)	wordcount	7:46:59	9:18:59	1hrs, 32mins,0sec	1
3	facebook-names-unique.txt (1,5 GB)	wordcount	7:46:29	8:30:00	43mins, 31sec	3
4	facebook-names-unique.txt (1,5 GB)	wordcount	7:50:49	8:56:55	1hrs, 6mins,6sec	2
5	facebook-names-unique.txt (1,5 GB)	wordcount	7:46:57	9:16:30	1hrs, 29mins, 33sec	0
6	facebook-names-unique.txt (1,5 GB)	wordmean	20:52:20	21:36:50	44mins, 29sec	4
7	facebook-names-unique.txt (1,5 GB)	wordmean	20:52:20	21:27:22	35mins, 1sec	1
8	facebook-names-unique.txt (1,5 GB)	wordmean	20:52:26	22:55:33	2hrs, 3mins, 7sec	2
9	facebook-names-unique.txt (1,5 GB)	wordmean	20:52:20	22:03:11	1hrs, 10mins, 51sec	2
10	facebook-names-unique.txt (1,5 GB)	wordmean	20:52:26	21:45:31	53mins, 4sec	3

<i>Jenis Job</i>	<i>Fail rate</i>			<i>Latency</i>	<i>Throughput</i>
	<i>Timeout</i>	<i>Erorr</i>	<i>Fail</i>		
WordCount	13,5 menit	8	2,95%	69,9 menit	0,36 Mbit/s
WordMean	8,16 menit	5	1,81%	65,3 menit	0,000084 Mbit/s

LAMPIRAN B KONFIGURASI FILE HADOOP

```
Sudo nano /usr/local/hadoop/etc/hadoop/core-site.xml
```

```
<configuration>
  <property>
    <name>fs.default.name</name>
    <value>hdfs://master:9000</value>
  </property>
</configuration>
```

```
Sudo nano /usr/local/hadoop/etc/hadoop/mapred-site.xml
```

```
<configuration>
  <property>
    <name>mapred.job.tracker</name>
    <value>master:54311</value> </property>
  <property>
    <name>mapreduce.framework.name</name>
    <value>yarn</value>
  </property> </configuration>
```

```
sudo nano /usr/local/hadoop/etc/hadoop/hdfs-site.xml
```

```
<configuration>
<property>
  <name>dfs.replication</name>
  <value>5</value> </property>
<property>
  <name>dfs.namenode.name.dir</name>
  <value>file:/usr/local/Hadoop_tmp/hdfs/namenode</value> </property>
<property>
  <name>dfs.datanode.data.dir</name>
  <value>file:/usr/local/Hadoop_tmp/hdfs/datanode</value>
</property> </configuration>
```

```
sudo nano /usr/local/hadoop/etc/hadoop/yarn-site.xml
```

```
<configuration>
<property>
  <name>yarn.nodemanager.aux-services</name>
  <value>mapreduce_shuffle</value> </property>
<property>
  <name>yarn.nodemanager.aux-services.mapreduce.shuffle.class</name>
```

```
<value>org.apache.Hadoop.mapred.ShuffleHandler</value> </property>
<property>
  <name>yarn.resourcemanager.resource-tracker.address</name>
  <value>master:8025</value> </property>
<property>
  <name>yarn.resourcemanager.scheduler.address</name>
  <value>master:8030</value> </property>
<property>
  <name>yarn.resourcemanager.address</name>
  <value>master:8050</value> </property> </configuration>
```

Sudo nano /usr/local/hadoop/etc/hadoop/hdfs-site.xml (komputer master)

```
<configuration>
  <property>
    <name>dfs.replication</name>
    <value>5</value> </property>
  <property>
    <name>dfs.namenode.name.dir</name>
    <value>file:/usr/local/Hadoop_tmp/hdfs/namenode</value>
  </property>
</configuration>
```

Sudo nano /usr/local/hadoop/etc/hadoop/hdfs-site.xml (komputer slave)

```
<configuration>
  <property>
    <name>dfs.replication</name>
    <value>5</value>
  </property>

  <property>
    <name>dfs.datanode.data.dir</name>
    <value>file:/usr/local/Hadoop_tmp/hdfs/datanode</value>
  </property>
</configuration>
```