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## Jobsheet dan Laporan Big Data

```
hadoop-datanode3 [Running] - Oracle VirtualBox
File Machine View Input Devices Help
#export GCC_COLORS='error=01;31:warning=01;35:note=01;36:caret=01;32:locus=01:quote=01'
# some more ls aliases
alias ll='ls -alF'
alias la='ls -A'
alias l='ls -CF'

# Add an "alert" alias for long running commands. Use like so:
# sleep 10; alert
alias alert='notify-send --urgency=low -i "${?} = 0" && echo terminal || echo error)' "${history|tail -n1|sed -e '\s/\s*[0-9]\+\s*//;s/[:&]\s*alert#/'\n

# Alias definitions.
# You may want to put all your additions into a separate file like
# ~/.bash_aliases, instead of adding them here directly.
# See /usr/share/doc/bash-doc/examples in the bash-doc package.

if [ -f ~/.bash_aliases ]; then
    . ~/.bash_aliases
fi

# enable programmable completion features (you don't need to enable
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
    if [ -f /usr/share/bash-completion/bash_completion ]; then
        . /usr/share/bash-completion/bash_completion
    elif [ -f /etc/bash_completion ]; then
        . /etc/bash_completion
    fi
fi

export SPARK_HOME=/opt/spark
export PATH=$SPARK_HOME/bin:$PATH
export LD_LIBRARY_PATH=$HADOOP_HOME/lib/native:$LD_LIBRARY_PATH
export HADOOP_CONF_DIR=$HADOOP_HOME/etc/hadoop
export SPARK_MASTER_HOST=192.168.109.158

hadoopuser@hadoop-datanode3:~$
```

```
hadoop-datanode3 [Running] - Oracle VirtualBox
File Machine View Input Devices Help
# - SPARK_WORKER_OPTS, to set the working directory of worker processes
# - SPARK_WORKER_OPTS, to set config properties only for the worker (e.g. "-Dx=y")
# - SPARK_DAEMON_MEMORY, to allocate to the master, worker and history server themselves (default: 1g).
# - SPARK_HISTORY_OPTS, to set config properties only for the history server (e.g. "-Dx=y")
# - SPARK_SHUFFLE_OPTS, to set config properties only for the external shuffle service (e.g. "-Dx=y")
# - SPARK_DAEMON_JAVA_OPTS, to set config properties for all daemons (e.g. "-Dx=y")
# - SPARK_PUBLIC_DNS, to set the public dns name of the master or workers

# Options for launcher
# - SPARK_LAUNCHER_OPTS, to set config properties and Java options for the launcher (e.g. "-Dx=y")

# Generic options for the daemons used in the standalone deploy mode
# - SPARK_CONF_DIR      Alternate conf dir. (Default: ${SPARK_HOME}/conf)
# - SPARK_LOG_DIR        Where log files are stored. (Default: ${SPARK_HOME}/logs)
# - SPARK_LOG_MAX_FILES  Max log files of Spark daemons can rotate to. Default is 5.
# - SPARK_PID_DIR        Where the pid file is stored. (Default: /tmp)
# - SPARK_IDENT_STRING   A string representing this instance of spark. (Default: $USER)
# - SPARK_NICENESS        The scheduling priority for daemons. (Default: 0)
# - SPARK_NO_DAEMONIZE   Run the proposed command in the foreground. It will not output a PID file.
# Options for native BLAS, like Intel MKL, OpenBLAS, and so on.
# You might get better performance to enable these options if using native BLAS (see SPARK-21305).
# - MKL_NUM_THREADS=1    Disable multi-threading of Intel MKL
# - OPENBLAS_NUM_THREADS=1 Disable multi-threading of OpenBLAS

# Options for beeline
# - SPARK_BEELINE_OPTS, to set config properties only for the beeline cli (e.g. "-Dx=y")
# - SPARK_BEELINE_MEMORY, Memory for beeline (e.g. 1000M, 2G) (Default: 1G)

export JAVA_HOME=$(readlink -f /usr/bin/java | sed "s:bin/java:")
export SPARK_MASTER_HOST=192.168.109.158
export HADOOP_CONF_DIR=$HADOOP_HOME/etc/hadoop
export SPARK_WORKER_CORES=2
export SPARK_WORKER_MEMORY=4g
export SPARK_DRIVER_MEMORY=2g
export SPARK_EXECUTOR_MEMORY=2g

hadoopuser@hadoop-datanode3:~$
```

Spark

3.5.5

Spark Master at spark://192.168.109.158:7077

URL: spark://192.168.109.158:7077  
Alive Workers: 3  
Cores in use: 6 Total, 0 Used  
Memory in use: 12.0 GiB Total, 0.0 B Used  
Resources in use:  
Applications: 0 Running, 2 Completed  
Drivers: 0 Running, 0 Completed  
Status: ALIVE

Workers (3)

| Worker Id                                   | Address               | State | Cores      | Memory               | Resources |
|---|-----------------------|-------|------------|----------------------|-----------|
| worker-20250424080845-192.168.109.132-33705 | 192.168.109.132:33705 | ALIVE | 2 (0 Used) | 4.0 GiB (0.0 B Used) |           |
| worker-20250424080914-192.168.109.193-33905 | 192.168.109.193:33905 | ALIVE | 2 (0 Used) | 4.0 GiB (0.0 B Used) |           |
| worker-20250424080921-192.168.109.165-34531 | 192.168.109.165:34531 | ALIVE | 2 (0 Used) | 4.0 GiB (0.0 B Used) |           |

Running Applications (0)

| Application ID | Name | Cores | Memory per Executor | Resources Per Executor | Submitted Time | User | State | Duration |
|----------------|------|-------|---------------------|------------------------|----------------|------|-------|----------|
|----------------|------|-------|---------------------|------------------------|----------------|------|-------|----------|

Completed Applications (2)

| Application ID          | Name        | Cores | Memory per Executor | Resources Per Executor | Submitted Time      | User       | State    | Duration |
|-------------------------|-------------|-------|---------------------|------------------------|---------------------|------------|----------|----------|
| app-20250424081106-0001 | Spark shell | 6     | 2.0 GiB             |                        | 2025/04/24 08:11:06 | hadoopuser | FINISHED | 59 s     |
| app-20250424081009-0000 | Spark shell | 6     | 2.0 GiB             |                        | 2025/04/24 08:10:09 | hadoopuser | FINISHED | 38 s     |