ASSINGMENT NO 3

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ cd terminalCommands/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ ls

ArrayDemo.sh\* empwagewhile.sh linux-content/

emp\_Wage\_Using\_for\_Loop\_Switch.sh\* etc/ temp/

empwageArray.sh\* forloop1.sh\* test.pdf

empwagefunc.sh\* functiondemo.sh\* whileLoop.sh\*

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ mkdir Assignment\_3

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ ls

ArrayDemo.sh\* empwagewhile.sh temp/

Assignment\_3/ etc/ test.pdf

emp\_Wage\_Using\_for\_Loop\_Switch.sh\* forloop1.sh\* whileLoop.sh\*

empwageArray.sh\* functiondemo.sh\*

empwagefunc.sh\* linux-content/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ ls Assignment\_3/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ mkdir abc/abc.txt

mkdir: cannot create directory ‘abc/abc.txt’: No such file or directory

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ mkdir abc

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ rm abc

rm: cannot remove 'abc': Is a directory

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ ls

abc/ empwagefunc.sh\* linux-content/

ArrayDemo.sh\* empwagewhile.sh temp/

Assignment\_3/ etc/ test.pdf

emp\_Wage\_Using\_for\_Loop\_Switch.sh\* forloop1.sh\* whileLoop.sh\*

empwageArray.sh\* functiondemo.sh\*

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ rm abc

rm: cannot remove 'abc': Is a directory

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ rm -r abc

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ cd Assignment\_3/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mkdir abc

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ ls abc

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ cd abc/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/abc

$ mkdir abc.txt

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/abc

$ cd \*

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/abc/abc.txt

$ ls

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/abc/abc.txt

$ cd ..

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/abc

$ cd .

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/abc

$ cd ..

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ ls

abc/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ ls abc

abc.txt/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mkdir def

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ ls def

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ cd def

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/def

$ mkdir def.txt

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/def

$ cd . .

bash: cd: too many arguments

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/def

$ cd ..

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mkdir ghi

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ ls

abc/ def/ ghi/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ cd ghi/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/ghi

$ mkdir ghi.txt

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/ghi

$ cd ....

bash: cd: ....: No such file or directory

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/ghi

$ cd ../..

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands

$ cd Assignment\_3/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mkdir jkl

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ cd jkl

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/jkl

$ mkdir jkl.txt

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/jkl

$ cd ..

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ ls

abc/ def/ ghi/ jkl/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ ls \*

abc:

abc.txt/

def:

def.txt/

ghi:

ghi.txt/

jkl:

jkl.txt/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mkdir temp1

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ ls

abc/ def/ ghi/ jkl/ temp1/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mv temp abc/def/ghi/jkl

mv: cannot stat 'temp': No such file or directory

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mv temp1 abc/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mv temp1 def/

mv: cannot stat 'temp1': No such file or directory

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ ls

abc/ def/ ghi/ jkl/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ cd def/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/def

$ ls def.txt/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/def

$ ls def/

ls: cannot access 'def/': No such file or directory

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/def

$ ls

def/ ghi/ jkl/ temp/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mv def/ temp

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mv ghi/ temp

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mv jkl/ temp

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ ls

temp/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ cd temp/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/temp

$ ls

abc/ def/ ghi/ jkl/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/temp

$ cd ..

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ git mv temp basename

fatal: not a git repository (or any of the parent directories): .git

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ mv temp basename

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3

$ cd \*

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/basename

$ ls

abc/ def/ ghi/ jkl/

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/Assignment\_3/basename

$ ^C

Process list

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ ps

PID PPID PGID WINPID TTY UID STIME COMMAND

2045 2044 2045 16148 pty0 197609 16:46:00 /usr/bin/bash

2044 1 2044 15432 ? 197609 16:45:59 /usr/bin/mintty

2069 2045 2069 9800 pty0 197609 16:46:05 /usr/bin/ps

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ ps -ef

UID PID PPID TTY STIME COMMAND

Dhanraj 2045 2044 pty0 16:46:00 /usr/bin/bash

Dhanraj 2044 1 ? 16:45:59 /usr/bin/mintty

Dhanraj 2073 2045 pty0 16:46:47 /usr/bin/ps

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ ps -x

ps: unknown option -- x

Try `ps --help' for more information.

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ ps -fu

ps: option requires an argument -- u

Try `ps --help' for more information.

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ ps --help

Usage: ps [-aefls] [-u UID] [-p PID]

Report process status

-a, --all show processes of all users

-e, --everyone show processes of all users

-f, --full show process uids, ppids

-h, --help output usage information and exit

-l, --long show process uids, ppids, pgids, winpids

-p, --process show information for specified PID

-s, --summary show process summary

-u, --user list processes owned by UID

-V, --version output version information and exit

-W, --windows show windows as well as cygwin processes

With no options, ps outputs the long format by default

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$ ps -p

ps: option requires an argument -- p

Try `ps --help' for more information.

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ ps -U root -u root

ps: unknown option -- U

Try `ps --help' for more information.

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ ps aux

PID PPID PGID WINPID TTY UID STIME COMMAND

2045 2044 2045 16148 pty0 197609 16:46:00 /usr/bin/bash

2044 1 2044 15432 ? 197609 16:45:59 /usr/bin/mintty

2097 2045 2097 4776 pty0 197609 16:48:53 /usr/bin/ps

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ top

bash: top: command not found

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ ps -e

PID PPID PGID WINPID TTY UID STIME COMMAND

2045 2044 2045 16148 pty0 197609 16:46:00 /usr/bin/bash

2105 2045 2105 12244 pty0 197609 16:49:51 /usr/bin/ps

2044 1 2044 15432 ? 197609 16:45:59 /usr/bin/mintty

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ ps -r

ps: unknown option -- r

Try `ps --help' for more information.

Dhanraj@LAPTOP-S5068ATA MINGW64 ~

$ ps -l

PID PPID PGID WINPID TTY UID STIME COMMAND

2045 2044 2045 16148 pty0 197609 16:46:00 /usr/bin/bash

2044 1 2044 15432 ? 197609 16:45:59 /usr/bin/mintty

2113 2045 2113 4504 pty0 197609 16:50:37 /usr/bin

AWk commands data manipulation

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/linux-content (master)

$ cat data.csv

Id EmployeeName JobTitle BasePay OvertimePay OtherPay TotalPay TotalPayBenefits

1 NATHANIEL GM 167411 0 400184 567595 567595

2 GARY CAPTAIN 155966 245131 137811 538909 538909

3 ALBERT CAPTAIN 212739 106088 16452 335279 335279

4 CHRISTOPHER MECHANIC 77916 56120 198306 332343 332343

5 PATRICK DEPUTYCHIEF 134401 9737 182234 326373 326373

6 DAVID ASSTDEPUTY 118602 8601 189082 316285 316285

7 ALSON BATTALIONCHIEF 92492 89062 134426 315981 315981

8 DAVID DEPUTYDIRECTOR 256576 0 51322 307899 307899

10 JOANNE CHIEF 285262 0 17115 302377 302377

12 PATRICIA CAPTAIN 99722 87082 110804 297608 297608

13 EDWARD EXECUTIVE 294580 0 0 294580 294580

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/linux-content (master)

$ awk '{print $2,$7 }' data.csv

EmployeeName TotalPay

NATHANIEL 567595

GARY 538909

ALBERT 335279

CHRISTOPHER 332343

PATRICK 326373

DAVID 316285

ALSON 315981

DAVID 307899

JOANNE 302377

PATRICIA 297608

EDWARD 294580

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/linux-content (master)

$ awk '{print $2 , $7 }' data.csv

EmployeeName TotalPay

NATHANIEL 567595

GARY 538909

ALBERT 335279

CHRISTOPHER 332343

PATRICK 326373

DAVID 316285

ALSON 315981

DAVID 307899

JOANNE 302377

PATRICIA 297608

EDWARD 294580

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/linux-content (master)

$ awk '{print $2:$7 }' data.csv

awk: cmd. line:1: {print $2:$7 }

awk: cmd. line:1: ^ syntax error

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/linux-content (master)

$ awk '{print $2,$7 }' data.csv

EmployeeName TotalPay

NATHANIEL 567595

GARY 538909

ALBERT 335279

CHRISTOPHER 332343

PATRICK 326373

DAVID 316285

ALSON 315981

DAVID 307899

JOANNE 302377

PATRICIA 297608

EDWARD 294580

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/linux-content (master)

$ awk '{ if( $5 -gt 7000 && $5 -ls 1000) print $3,$5}' data.csv

JobTitle OvertimePay

GM 0

CAPTAIN 245131

CAPTAIN 106088

MECHANIC 56120

DEPUTYCHIEF 9737

ASSTDEPUTY 8601

BATTALIONCHIEF 89062

DEPUTYDIRECTOR 0

CHIEF 0

CAPTAIN 87082

EXECUTIVE 0

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/linux-content (master)

$ cat data.csv | awk '{ sum+=$4 };END {print sum/13}'

145821

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/linux-content (master)

$ grep -i CAPTAIN data.csv

2 GARY CAPTAIN 155966 245131 137811 538909 538909

3 ALBERT CAPTAIN 212739 106088 16452 335279 335279

12 PATRICIA CAPTAIN 99722 87082 110804 297608 297608

Dhanraj@LAPTOP-S5068ATA MINGW64 ~/terminalCommands/linux-content (master)

$ awk '{ if( $5 -gt 10000 ) print $4 }' data.csv

BasePay

167411

155966

212739

77916

134401

118602

92492

256576

285262

99722

294580