UNIX LAB SESSION

TOPIC - **Shell and Shell scripts**

**The Shell environment**

* Writing First shell script
* Login into the system
* Use vi editor to create a file called shell\_1.sh which contains some shell text.
* Correct typing errors during creation if any
* Save the file
* Logout of the file
* Run the shell script

1)

vi shell\_1.sh => vi editor will invoke editor for shel\_1.sh, type below command

#!/bin/ksh

# comments follow the "#" character

echo "Hello World"

exit # another comment following a command on the same line.

# done

Save the file and exit.

ksh shell\_1.sh # execute shell1\_sh

----output

sh-3.00$ ksh my\_first.sh

Hello World

sh-3.00$

2) use of Variable – Shell\_2.sh

#!/bin/ksh

clear

# environment variables may be used in shell scripts

echo $HOME

# shell variables may be assigned values with the set command

export flp\_path=/oracle/test

echo "path :" $flp\_path

ls -ltr $flp\_path

echo $flp\_path

exit

# done

3) calculator.sh [use of case / while loop ]

#!/bin/ksh

echo "Enter First Value "

read x

echo "Enter Second Value "

read y

s=9

while [ $s != BREAK ]

do

echo "Enter a for adding"

echo "Enter s for subtraction"

echo "Enter x for multiplication"

echo "Enter c for Quotient"

echo "Enter r for reminder"

echo "Enter o for exit "

read s

case $s in

-a) p=`expr $x + $y`

echo "Sum = $p"

;;

-s) p=`expr $x - $y`

echo "difference = $p"

;;

-x) p=`expr $x \\* $y`

echo "Product = $p"

;;

-c) p=`expr $x / $y`

echo "quotient = $p"

;;

-r) p=`expr $x % $y`

echo "reminder = $p"

;;

-o) s=BREAK

;;

esac

done

4) use of global and local variable

vi global\_variable.sh

#!/bin/ksh

clear

echo "Inside $0....."

export TDATE=`date +%d-%m-%y:%H-%M-%S`

MTIME=`date +%H-%M-%S`

echo "Note = DATE is global variable"

echo " Time is local variable"

echo DATE=$TDATE

echo TIME=$MTIME

echo "exiting ...$0"

ksh sub\_globalvariable.sh

vi sub\_globalvariable.sh"

#!/bin/ksh

echo "inside $0"

echo DATE=$TDATE

echo TIME=$MTIME

echo "+------------------------------------------------------------------------------+"

echo "|Please note that value of TIME is blank, since it is defined as local variable|"

echo "|wheras DATE is availble as its gloablly defined |"

echo "+------------------------------------------------------------------------------+"

echo "exiting...$0"

$ ksh global\_variable.sh

6) Special Reserved Variable

----sp\_var.sh

#!/bin/ksh

echo "Example usage of special variable in UNIX"

echo ""

echo "----Description-------------------Variable--Ouput"

echo "This shell script name is \$0 : $0"

echo "The First argument passed is \$1 : $1"

echo "The second argument passed is \$2 : $2"

echo "Total argument are \$# : $#"

echo "Total argument are \$\* : $\*"

echo "Exi status of above command \$? : $?"

echo "Process id of the current shel \$$ : $$"

echo "Inovke Background process :echo BG\_ABC& : "

echo "BG\_ABC"&

echo "Process no. of the last bg command \$! : $!"

echo "....exit"

echo "Background process is displayed below"

7) Command line argument

vi command\_line.sh

#!/bin/ksh

echo " Command Line argument example"

echo "File Name: $0"

echo "First Name : $1"

echo "Last Name : $2"

echo "Address : :" $3

echo "Total Parameter passed : " $#

echo "Parameters passed value " $\*

ksh command\_line.sh Manmohan Singh "Prime minister of India, Janpath 10 , Delhi"

8) Shift Statement

vi shift\_command.sh

#!/bin/ksh

echo "Example of shift command :"

echo $1

shift

echo $1

shift

echo $1

ksh shift\_command.sh First Second Third

9) READ

Write a shell script , which accepts user name , DOB and prints his name and age.

10) Write shell script which uses quoting characters [ ‘ ‘, “ “ ,\ ]

11) command substitution

Vi command\_substitution.sh

#!/bin/sh

DATE=`date`

echo "Date is $DATE"

USERS=`who | wc -l`

echo "Logged in user are $USERS"

UP=`date ; uptime`

echo "Uptime is $UP"

12) examples of regulalr expression

* grep '606[0-9][0-9]' address-book
* grep '^$' somefile | wc # count no of blank line

13) Write a shell script , which ask for the username

The username entered should be

First four input should be character

First char should be uppercase and rest 3 lowercase,

Fifth position should be sincle special char [!@#$%], rest 5 should be numeric [0-9], display appropriate error message if any , else success.