**-: Basic Shell Scripting :- [ Bash ]**

A shell script is a text file that contains a sequence of commands for a UNIX-based operating system.

It is still just a list of commands that are executed sequentially.

NOTE: Please push all your code to your GIT Repository

**Let’s start with Hello, World!**

NOTE: Add hello\_world.sh file for below code and Add, Commit, Push the file to Git repo.

#!/usr/local/bin/bash

# Author : Bhaskar

# A Shell program to read username and greet him. [ 01\_helloworld.sh ]

echo "Hello, World!"

echo "What is your name?"

read NAME

echo "Hello, $NAME"

**-: Decision Making :-**

NOTE: create a branch <your\_first\_name>\_sh\_decision\_01 to add below scripts

**if..else..fi:**

#!/usr/local/bin/bash

read -p "Enter number : " n

if test $n -ge 0

then

echo "$n is positive number."

else

echo "$n number is negative number."

fi

**case....esac :**

#!/usr/local/bin/bash

echo "Enter a tool (jenkins, jira, git, sonarqube): "

read TOOL

case "$TOOL" in

"jenkins") echo "jenkins is a CI/CD tool."

;;

"jira") echo "jira is a bug reporting and agile tool."

;;

"git") echo "git is one of source-control management tool."

;;

"sonarqube") echo “sonarqube is code coverage and static analysis tool”

;;

\*) echo "invalid tool $TOOL. valid tools are: jenkins, git, jira, sonarqube."

;;

esac

**-: Loops :**-

NOTE: create a branch <your\_first\_name>\_sh\_loops\_01 to add below scripts

**for:**

#!/usr/local/bin/bash

for count in {1..10}

do

echo "$count"

done

**while:**

#!/usr/local/bin/bash

count=1

while [ $count -lt 10 ]

do

echo $count

count=`expr $count + 1`

done

**-: Command line arguments :-**

NOTE: create a branch <your\_first\_name>\_sh\_cliargs\_func\_01 to add below scripts

#!/usr/local/bin/bash

# A Shell program to check and print cli arguments passed

# Usage: bash 06\_cli\_args.sh ab cd ef gh

# Try :

# bash 06\_cli\_args.sh

# bash 06\_cli\_args.sh ab

# bash 06\_cli\_args.sh ab cd

# bash 06\_cli\_args.sh ab cd ef gh ij

#

if [ $# -ge 2 ]

then

echo “Received required arguments”

else

echo “At least 2 arguments must be passed at cli”

exit 1

fi

echo “This scripts name is : $0” # 06\_cli\_args.sh

echo “The first argument is : $1”

echo “The number of arguments is : $#”

echo “The list of arguments passed : $@” # $\*

echo “The exit status of last cmd : $?”

echo “This script process id : $$”

# NOTE: If CLI arguments are more than 9 then use ${} notation.

# Example : To print 10th cli arguments use ${10} as $10 does not work.

**-: Functions or Subroutines :-**

#!/usr/local/bin/bash

factorial ()

{

num1=$1

fsum=1

while [ $num1 -gt 1 ]

do

fsum=`expr $fsum \\* $num1`

num1=`expr $num1 - 1`

done

return $fsum

}

factorial "5"

echo "The factorial of 5 is: $?"

**-: Write shell code to print a given string in ascii sorted order, after removing duplicate characters :-**

Example: abracadabra --> abcdr

$ echo "abracadabra" | grep -o . | sort -u | tr -d '\n'

**NOTE:** Use of ‘|’ pipe and grouping of commands to complete bigger task.