**RIPHAH INTERNATIONAL UNIVERSITY, ISLAMABAD**



**Lab # 10**

**Bachelors of Computer Science – 6th Semester**

**Subject: Operating System**

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**Lab Tasks**

**Exercise 1:**

Put this code in a file and executes with two arguments.

echo “The following is the output of $0 script:”

echo “The total number of command line argument:$#”

echo “The first parameter:$1”

echo “The second parameter:$2”

**Output:**

**1. Create File: nano script.sh**

#!/bin/bash

echo "The following is the output of $0 script:"

echo "The total number of command line arguments: $#"

echo "The first parameter: $1"

echo "The second parameter: $2"

**2. Execute:**

chmod 777 script.sh

./script.sh arg1 arg2

**Exercise 2:**

Write a program to take value from user between 1 to 5.and display result like this:

1. …you pressed 1
2. …you pressed 2

Above 5…. invalid

**Output:**

**1. Create File: nano program.sh**

#!/bin/bash

read -p "Enter a number between 1 and 5: " number

if [[ $number -ge 1 && $number -le 5 ]]; then

echo "...you pressed $number"

else

echo "Above 5... invalid"

fi

**2. Execute:**

chmod 777 program.sh

./program.sh

**Exercise 3:**

There are three semesters in an academic year i.e. Fall (Aug-Jan), Spring (Feb-May) and Summer (Jun-July). Write a script which read current month from the user and determine running semester. For example if user enters current month either 1 or January or Jan the script should display “Fall Semester”.

**Output:**

**1. Create File: nano semester.sh**

#!/bin/bash

read -p "Enter the current month (number or name): " month

case $month in

1|January|Jan)

echo "Fall Semester"

;;

2|February|Feb)

echo "Spring Semester"

;;

3|March|Mar)

echo "Spring Semester"

;;

4|April|Apr)

echo "Spring Semester"

;;

5|May)

echo "Spring Semester"

;;

6|June|Jun)

echo "Summer Semester"

;;

7|July|Jul)

echo "Summer Semester"

;;

8|August|Aug)

echo "Fall Semester"

;;

9|September|Sep)

echo "Fall Semester"

;;

10|October|Oct)

echo "Fall Semester"

;;

11|November|Nov)

echo "Fall Semester"

;;

12|December|Dec)

echo "Fall Semester"

;;

\*)

echo "Invalid month"

;;

Esac

**2. Execute:**

chmod 777 semester.sh

./semester.sh

**Exercise 4:**

Write a program in shell scripting and attached screenshots with explanations

* Perform array and string code in shell scripting
* Perform If Else code in Shell Scripting
* Perform Case related code in shell scripting

**Output:**

**1. Create File: nano examples.sh**

#!/bin/bash

# Array example

colors=("red" "green" "blue")

echo "Array elements:"

for color in "${colors[@]}"; do

echo "$color"

done

# String example

str="Hello, World!"

echo "String length: ${#str}"

# If-Else example

read -p "Enter a number: " num

if [ $num -gt 0 ]; then

echo "$num is positive"

elif [ $num -lt 0 ]; then

echo "$num is negative"

else

echo "$num is zero"

fi

# Case example

read -p "Enter a grade (A, B, C): " grade

case $grade in

A)

echo "Excellent"

;;

B)

echo "Good"

;;

C)

echo "Average"

;;

\*)

echo "Invalid grade"

;;

Esac

**2. Execute:**

chmod 777 examples.sh

./examples.sh