

Operating System Lab # 10

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Batch: BSCS 5thsemester

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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"
```

Solution:

```
#!/bin/bash
echo "The following is the output of $0 script:"
echo "The total number of command line argument:$#"
echo "The first parameter is:$1"
echo "The Second parameter is:$2"
```

```
"Task.sh" [New] 6L, 181B written
[root@localhost ~]# chmod 777 Task.sh
```

Exercise 2:

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

```
...you pressed 1 ...you pressed 2 Above 5....invalid
```

Solution:

```
#!/bin/bash
echo "Please enter a number between 1and 5:"
read number
case $number in
echo "...you pressed 1";;
echo "...you pressed 2";;
echo "...you pressed 3";;
4) echo "...you pressed 4";;
echo "...you pressed 5";;
*) echo "Above 5... invalid";;
esac
'Task2.sh" [New] 11L, 266B written
[root@localhost ~]# chmod 777 Task2.sh
[root@localhost ~]# ./Task2.sh
Please enter a number between 1and 5:
Above 5... invalid
```

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".

Solution:

```
#!/bin/bash
echo "Please Enter the current month (e.g 1, January, Jan):"
read month
#conver input to lowercase for easy matching
month=$(echo "$month" | tr '[:upper:]' '[:lower:]')
case $month in
1|jan|january|8|aug|august|9|sep|september|10|oct|october|11|nov|november|12|dec
|december)
echo "Fall Semester";;
2|feb|february|3|mar|march|4|apr|april|5|may)
echo "Spring Semester";;
6|jun|june|7|jul|july)
echo "Summer Semester";;
*) echo "Invalid Output. Please Enter a Valid month";;
esac
```

```
"semester.sh" [New] 14L, 490B written
[root@localhost ~]# chmod 777 semester.sh
[root@localhost ~]# ./semester.sh
Please Enter the current month (e.g 1, January, Jan):
oct
Fall Semester
```

Exercise 4:

Write a program in shell scripting and attached screenshots with explanations

- 1. Perform array and string code in shell scripting
- 2. Perform If Else code in Shell Scripting
- 3. Perform Case related code in shell scripting

Array Code:

```
#!/bin/bash

#Array
myarray=(1 2 3 4 5)
echo "the value is:${myarray[1]}"
echo "all elements of myarray are: ${myarray[*]}"
echo "length of myarray is: ${#myarray[*]}"
```

```
student@student-virtual-machine:~$ ./MyArray.sh
the value is:2
all elements of myarray are: 1 2 3 4 5
length of myarray is: 5
```

String code:

```
#!/bin/bash
str1="Hello"
str2="World"
if [ "$str1" = "$str2" ];
then
echo "Strings are equal"
else
echo "Strings are not equal"
fi
```

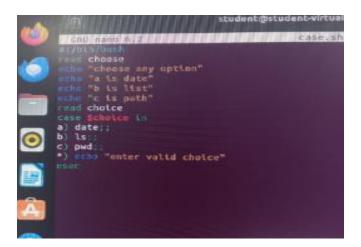
```
"string.sh" [New] 9L, 133B written
[root@localhost ~]# chmod 777 string.sh
[root@localhost ~]# ./string.sh
Strings are not equal
[root@localhost ~]#
```

IF Else Code:

```
#!/bin/bash
str1="Hello"
str2="World"
if [ "$str1" = "$str2" ];
then
echo "Strings are equal"
else
echo "Strings are not equal"
fi
```

```
"string.sh" [New] 9L, 133B written
[root@localhost ~]# chmod 777 string.sh
[root@localhost ~]# ./string.sh
Strings are not equal
[root@localhost ~]#
```

3. Case Related:



```
student@student-virtual-machine:~$
student@student-virtual-machine:~$
student@student-virtual-machine:~$ chmod 777 case.sh
student@student-virtual-machine:~$ ./case.sh
choose any option
a is date
b is list
c is path
a
10:16:44 p PKT 2024 ت حدد الاحتجاب ا
```

THE END