



Daffodil International University

Department of Computer Science and Engineering



Lab Manual

Version: 2017.04

Daffodil
International
University

Course Code: CSE 324

Course Title: Operating System Lab

Session 7: Decision making in shell scripting (3 Hrs.)

Intended Learning Outcome:

- a. Write shell script with decision making

Expected skills:

Solve shell script problems involved with decision making

Tools Required:

Ubuntu

Session Detail:

In this session we would discuss about if-else & switch case conditions in shell scripts.

If-else:

The **if...else...fi** statement is the next form of control statement that allows Shell to execute statements in a controlled way and make the right choice.

Comparisons:

-eq	equal to
-ne	not equal to
-lt	less than
-le	less than or equal to
-gt	greater than
-ge	greater than or equal to

File Operations:

-s	file exists and is not empty
-f	file exists and is not a directory
-d	directory exists
-x	file is executable
-w	file is writable
-r	file is readable

Syntax:

```
    if [ expression ]
    then
        Statement(s) to be executed if expression is true
    else
        Statement(s) to be executed if expression is not true
fi
```

Example:

```
#!/bin/sh
```

```
a=10
```

```
b=20
```

```
if [ $a == $b ]
```

```
then
```

```
    echo "a is equal to b"
```

```
else
```

```
    echo "a is not equal to b"
```

```
fi
```

Else-if:

Syntax:

```
    if [ expression ]
    then
        Statement(s) to be executed if expression is true
    elif [ expression ]
    then
        Statement(s) to be executed if expression is true
    else
        Statement(s) to be executed if expression is not true
fi
```

Example:

```
#!/bin/bash
```

```
if [ "$1" = "cool" ]
```

```
then
```

```
    echo "Cool Beans"
```

```
elif [ "$1" = "neat" ]
```

```
then
```

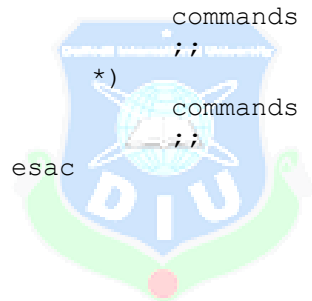
```
        echo "Neato cool"
    else
        echo "Not Cool Beans"
fi
```

switch case:

it's like if else with a little difference. In here we can choose our option and can get required answer.

Syntax:

```
case $variable in
    pattern-1)
        commands
        ;;
    pattern-2)
        commands
        ;;
    pattern-3)
        commands
        ;;
    pattern-N)
        commands
        ;;
    *)
        commands
        ;;
esac
```



Lab exercise:

1. Make a GPA result displayer
2. Find greater number
3. find Number is Even or Odd
4. Find the number is positive or negative
5. Find out your age conditions. If you are less than 20 or greater than 50, you are out of the age range. If you are between 20 and 30 you are in your 20's and so on.

Post Lab Exercise:

- a. Solve exercise on decision making problems

Further Readings:

Shell scripting related problems available online.