

Experiment 05

Aim: If – Else statements in bash

Bash scripting allows conditional execution using if-else statements. These statements enable decision-making within a script, executing different commands based on whether a condition evaluates to true or false.

Basic Syntax of If-Else Statement

```
if [ condition ]; then
    # Code to execute if condition is true
else
    # Code to execute if condition is false
fi
```

Examples of If-Else Statements

1. Simple If Statement:

This script checks if 1 is equal to 1 and prints a message.

```
localhost:~/RITIKA# cat > testif.sh
#!/bin/bash
if [ 1 -eq 1 ]; then
    echo "1 is equal to 1"
fi
localhost:~/RITIKA# bash testif.sh
1 is equal to 1
```

2. If-Else Statement:

This script compares two numbers.

```
localhost:~/RITIKA# cat > testifelse.sh
#!/bin/bash
if [ 1 -eq 9 ]; then
    echo "1 is equal to 1"
else
    echo "The numbers are not equal"
fi
localhost:~/RITIKA# bash testifelse.sh
The numbers are not equal
```

3. File Existence Check:

This script checks if a file named data.txt exists.

```
localhost:~/RITIKA# cat > filecheck.sh
#!/bin/bash
if [ -f data.txt ]; then
    echo "File exists"
else
    touch data.txt
    echo "New file created"
fi
localhost:~/RITIKA# bash filecheck.sh
New file created
```

4. String Comparison:

This script compares two string variables.

```
localhost:~/RITIKA# cat > stringcomp.sh
#!/bin/bash
user="admin"
administrator="admin"
if [ "$user" = "$administrator" ]; then
    echo "The strings match"
else
    echo "The strings do not match"
fi
localhost:~/RITIKA# bash stringcomp.sh
The strings match
```

5. User Authentication Check:

This script prompts the user for a name and verifies if they are an administrator.

```
localhost:~/RITIKA# #!/bin/bash
localhost:~/RITIKA# auth_user="admin"
localhost:~/RITIKA# read -p "What's your name? " user
What's your name?
localhost:~/RITIKA# if [[ "$user" == "$auth_user" ]]; then
> echo "You are an administrator"
> elif [[ -z "$user" ]]; then
>     echo "Please enter a username"
>     read user
>     echo "Hello $user, Greetings!"
> else
>     echo "You are a standard user"
> fi
Please enter a username
RITIKA
Hello RITIKA, Greetings!
```