

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

2. If-Else Statement:

This script compares two numbers.

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

3. File Existence Check:

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

```
localhost:~/Vishal# cat > testifelse1.sh
#!/bin/bash
if [ -f data.txt ]; then
echo "File exists"
else
touch data.txt
echo "New file created"
fi
localhost:~/Vishal# bash testifelse1.sh
bash: testifelse1.sh: No such file or directory
localhost:~/Vishal# bash testifelse1.sh
New file created
localhost:~/Vishal#
```

4. String Comparison:

This script compares two string variables.

```
localhost:~/Vishal# cat>stringcompare.sh
#!/bin/bash
user="admin"
administrator="admin"

if [ "$user" = "$administrator" ]; then
echo "The strings do not match"
fi
localhost:~/Vishal# bash stringcompare.sh
The strings do not match
localhost:~/Vishal#
```

5. User Authentication Check:

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

```
localhost:~/Vishal# cat >ifelse5.sh
#!/bin/bash
auth_user="admin"
read -p "What's your name? " user

if [[ "$user" == "$auth_user" ]]; then
echo "Please enter a username"
read user
echo "Hello $user, Greatting!"
else
echo "You are a standard user"
fi
localhost:~/Vishal# bash ifelse5.sh
What's your name?
```