Experiment 04

Aim: Learn use of chmod command and vi text editor.

The "chmod" command modifies the read, write, and execute permissions of specified files. The octal digits used for assigning permissions are as follows:

Octal Digit	Permissions	Symbolic Display
7	read, write, execute	rwx
6	read, write	rw-
5	read, execute	r-x
4	read	r--
3	write, execute	-wx
2	write	-w-
1	execute	--x
0	no permissions	---

- **Owner is denoted by 'u'.**
- **Group is denoted by 'g'.**
- **Others is denoted by 'o'.**

Examples

1. **Using octal notation:**
   - **chmod 711 test.sh**
2. **Using symbolic notation:**
   - **chmod u+rwx test.sh**
   - **chmod go+--x test.sh**

The "vi text editor" is a powerful text editor available in Unix and Linux systems. It is widely used for editing configuration files and scripts.

Basic Modes in vi

1. **Insert Mode (For writing text)**
   - **Press i to enter insert mode.**
   - **Start typing the content.**
2. **Command Mode (Default mode)**
   - **Used for navigation and executing commands.**
   - **Press Esc to return to this mode.**
3. **Last Line Mode (For saving and exiting)**
   - **Press Esc, then type : to enter last line mode.**
   - **:wq → Save and exit.**

Program Case 1: Creating hello.sh file in a directory with your name and giving permission to

user only using chmod command.

ls
mkdir zaid
cd zaid
cat > hello.sh
#!/bin/bash
echo "Hello World"
chmod u+rwx hello.sh
./hello.sh

```
localhost:~# ls
bench.py    hello.c     hello.js    readme.txt
localhost:~# mkdir zaid
localhost:~# cd zaid
localhost:~/zaid#    cat > hello.sh
#!/bin/bash
echo "Hello World"
localhost:~/ zaid#    chmod u+rwx hello.sh
localhost:~/ zaid#    ./hello.sh
Hello World
localhost:~/zaid#
```

Program Case 2: Creating vi text editor file namely test.sh

vi test.sh
i (for start inserting text)
#!/bin/bash
var1="hello"
var2="zaid"
echo $var1 $var2
esc (for escaping insert mode and come back to command mode)
:wq(for save and exit)
chmod u+rwx test.sh
./test.sh

```
localhost:~# vi test.sh
#!/bin/bash
var1="Hello"
var2="zaid"
echo $var1 $var2
~
~
~
~
localhost:~# chmod u+rwx test.sh
localhost:~# ./test.sh
Hello Zaid
localhost:~#
```