Name: Vivek Saroj

Reg Email: viveksaroj098@gmail.com

Course Name: DevOps

Assignment Name: Module 16 Bash Scripting.

Git Link:

Task1


```
viveklinux@DESKTOP-R50P7KF:~$ $HOME
-bash: /home/viveklinux: Is a directory
viveklinux@DESKTOP-R50P7KF:~$ vim task1.sh
viveklinux@DESKTOP-R50P7KF:~$ bash task1.sh
File backedup successfully to : /home/viveklinux/backup
viveklinux@DESKTOP-R50P7KF:~$ cd backup
viveklinux@DESKTOP-R50P7KF:~/backup$ ls
error_20250518_184351.txt  output_20250518_184351.txt  whilerror_20250518_184351.txt
viveklinux@DESKTOP-R50P7KF:~/backup$ cd ..
viveklinux@DESKTOP-R50P7KF:~$ ls
backup  error.txt  folder1  folder2  output.txt  task1.sh  whilerror.txt
```

Task2:


```
3485584
viveklinux@DESKTOP-R50P7KF:~$ free | grep Mem | awk '{print $2}'
3965816
viveklinux@DESKTOP-R50P7KF:~$ ls
backup  error.txt  folder1  folder2  output.txt  task1.sh  whilerror.txt
viveklinux@DESKTOP-R50P7KF:~$ vim task2.sh
viveklinux@DESKTOP-R50P7KF:~$ bash task2.sh
viveklinux@DESKTOP-R50P7KF:~$ ls
backup  error.txt  folder1  folder2  output.txt  system_health.log  task1.sh  task2.sh  whilerror.txt
viveklinux@DESKTOP-R50P7KF:~$ cat system_health.log
Sun May 18 19:19:37 UTC 2025 - CPU: 2.3% used | Mem: 87% free
viveklinux@DESKTOP-R50P7KF:~$ $username
viveklinux@DESKTOP-R50P7KF:~$ ls
backup  error.txt  folder1  folder2  output.txt  system_health.log  task1.sh  task2.sh  whilerror.txt
```

Task3:


```
viveklinux@DESKTOP-R50P7KF:~$ ls
backup  error.txt  folder1  folder2  output.txt  system_health.log  task1.sh  task2.sh  whilerror.txt
viveklinux@DESKTOP-R50P7KF:~$ vim task3.sh
viveklinux@DESKTOP-R50P7KF:~$ bash task3.sh
task3.sh: line 16: user_list.txt: No such file or directory
User created successfully and credential saved.
viveklinux@DESKTOP-R50P7KF:~$ ls
backup  credentials.txt  error.txt  folder1  folder2  output.txt  system_health.log  task1.sh  task2.sh  task3.sh  whilerror.txt
viveklinux@DESKTOP-R50P7KF:~$ cat credentials.txt
viveklinux@DESKTOP-R50P7KF:~$ touch credentials.txt
viveklinux@DESKTOP-R50P7KF:~$ vim credentials.txt
viveklinux@DESKTOP-R50P7KF:~$ bash task3.sh
task3.sh: line 16: user_list.txt: No such file or directory
User created successfully and credential saved.
viveklinux@DESKTOP-R50P7KF:~$ touch credentials
viveklinux@DESKTOP-R50P7KF:~$ cat credentials.txt
viveklinux@DESKTOP-R50P7KF:~$ ls
backup  credentials  credentials.txt  error.txt  folder1  folder2  output.txt  system_health.log  task1.sh  task2.sh  task3.sh  whilerror.txt
viveklinux@DESKTOP-R50P7KF:~$ touch credentials.txt
viveklinux@DESKTOP-R50P7KF:~$ vim credentials.txt
viveklinux@DESKTOP-R50P7KF:~$ vim task3.sh
viveklinux@DESKTOP-R50P7KF:~$ vim user_list.txt
```

```
User created successfully and credential saved.
viveklinux@DESKTOP-R50P7KF:~$ vim task3.sh
viveklinux@DESKTOP-R50P7KF:~$ bash task3.sh
useradd: user 'vivek' already exists
useradd: user 'anjali' already exists
useradd: user 'vidya' already exists
useradd: user 'anil' already exists
useradd: user 'ketan' already exists
useradd: user 'mahesh' already exists
User created successfully and credential saved.
viveklinux@DESKTOP-R50P7KF:~$ cat credentials.txt
vivek:/xnatsxSmo4=
anjali:UiV6gKKRFmQ=
vidya:LdQvsAZrE7w=
anil:FFAOFXSTInI=
ketan:aTMeNYYF4QI=
mahesh:Elnl7oBbVT0=
viveklinux@DESKTOP-R50P7KF:~$ vim task3.sh
```

[Task4](#):


```
viveklinux@DESKTOP-R50P7KF:~$ vim task4.sh
viveklinux@DESKTOP-R50P7KF:~$ bash task4.sh folder1/
Enter directory path to created backup of: folder1/
Backup completed: folder1_backup_20250518_20061747598775.tar.gz
viveklinux@DESKTOP-R50P7KF:~$ ls
backup          credentials.txt  folder1                                    folder2      system_health.log  task2.sh  task4.sh      whilerror.txt
credentials     error.txt        folder1_backup_20250518_20061747598775.tar.gz  output.txt  task1.sh           task3.sh  user_list.txt
```

[Task5](#):


```
credentials     error.txt        folder1_backup_20250518_20061747598775.tar.gz  output.txt  task1.sh           task3.sh  user_list.txt
viveklinux@DESKTOP-R50P7KF:~$ vim task5.sh
viveklinux@DESKTOP-R50P7KF:~$ bash task5.sh
==== Simple To-Do List ====
1. View Tasks
2. Add Task
3. Remove Task
4. Exit
==========================
Choose an option (1-4): 1

---- To-Do List ----
No tasks yet.
viveklinux@DESKTOP-R50P7KF:~$ vim task5.sh
```

[Task6](#):

```
viveklinux@DESKTOP-R50P7KF:~$ vim task6.sh
viveklinux@DESKTOP-R50P7KF:~$ bash task6.sh
Please run as root (use sudo)
viveklinux@DESKTOP-R50P7KF:~$ sudo bash task6.sh
[sudo] password for viveklinux:
Installing python3...
Installing python3-pip...
Installing htop...
Installing tree...
Installing screenfetch...
Installing nmap...
Installing net-tools...
Installation complete. Check install_packages.txt for details.
viveklinux@DESKTOP-R50P7KF:~$ cat install_packages.txt
Reading package lists...
Building dependency tree...
Reading state information...
python3 is already the newest version (3.12.3-0ubuntu2).
python3 set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
python3: SUCCESS
Reading package lists...
Building dependency tree...
Reading state information...
The following additional packages will be installed:
  build-essential bzip2 cpp cpp-13 cpp-13-x86-64-linux-gnu
  cpp-x86-64-linux-gnu dpkg-dev fakeroot g++ g++-13 g++-13-x86-64-linux-gnu
  g++-x86-64-linux-gnu gcc gcc-13 gcc-13-base gcc-13-x86-64-linux-gnu
  gcc-x86-64-linux-gnu javascript-common libalgorithm-diff-perl
  libalgorithm-diff-xs-perl libalgorithm-merge-perl libaom3 libasan8
  libatomic1 libc-dev-bin libc-devtools libc6-dev libcc1-0 libcrypt-dev
  libde265-0 libdpkg-perl libexpat1-dev libfakeroot libfile-fcntllock-perl
  libgcc-13-dev libgd3 libgomp1 libheif-plugin-aomdec libheif-plugin-aomenc
  libheif-plugin-libde265 libheif1 libhwasan0 libisl23 libitm1 libjs-jquery
  libjs-sphinxdoc libjs-underscore liblsan0 libmpc3 libpython3-dev
  libpython3.12-dev libquadmath0 libstdc++-13-dev libtsan2 libubsan1 libxpm4
  linux-libc-dev lto-disabled-list make manpages-dev python3-dev python3-wheel
```

[Task7](#):

```
Processing triggers for man-db (2.12.0-4build2) ...
net-tools: SUCCESS
viveklinux@DESKTOP-R50P7KF:~$ vim task7.sh
viveklinux@DESKTOP-R50P7KF:~$ bash task7.sh output.txt
Lines: 10
Words: 60
Characters: 211
Longest word: value
viveklinux@DESKTOP-R50P7KF:~$ cat output.txt
The value of i is: 1
The value of i is: 2
The value of i is: 3
The value of i is: 4
The value of i is: 5
The value of i is: 6
The value of i is: 7
The value of i is: 8
The value of i is: 9
The value of i is: 10
```