



SHELL PROGRAMMING LAB

ASSIGNMENT -1

SUBMITTED BY:

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SUBMITTED TO:

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Experiment 1 Lab Manual

Title: Familiarity with Linux Environment

Objective: Revision of basic commands and familiarity with vi editor.

1. Practice the following commands:

{ who, whoami, clear, man, ls (with the options-a, c, d, m, p, r, f, x), pwd, mkdir, cd, rmdir, cat (to create a file; to see the contents of a file; and to create copies), sort (to sort the content of a file in both- ascending and descending order), cp, mv, rm, wc, (i.e. word command with the options- c, l, w), head, tail }

```
(kali@kali)-[~/Desktop]
$ who
kali      tty7      2022-08-23 13:37 (:0)

(kali@kali)-[~/Desktop]
$ whoami
kali

(kali@kali)-[~/Desktop]
$ clear
```

```
kali@kali: ~/Desktop
File Actions Edit View Help

(kali@kali)-[~/Desktop]
$ man man

(kali@kali)-[~/Desktop]
$ ls
first.sh

(kali@kali)-[~/Desktop]
$ ls -ll
total 4
-rw-r--r-- 1 kali kali 43 Aug 23 13:42 first.sh

(kali@kali)-[~/Desktop]
$ ls -l
total 4
-rw-r--r-- 1 kali kali 43 Aug 23 13:42 first.sh

(kali@kali)-[~/Desktop]
$
```

```
kali@kali: ~  
File Actions Edit View Help  
.bashrc      .dmrc      .gnupg      .profile      .Xauthority  
  
(kali@kali)-[~]  
$ ls -C  
Desktop Documents Downloads Music Pictures Public Templates Videos  
  
(kali@kali)-[~]  
$ ls -d  
.  
  
(kali@kali)-[~]  
$ ls -m  
Desktop, Documents, Downloads, Music, Pictures, Public, Templates, Videos  
  
(kali@kali)-[~]  
$ ls -p  
Desktop/ Documents/ Downloads/ Music/ Pictures/ Public/ Templates/ Videos/  
  
(kali@kali)-[~]  
$ ls -r  
Videos Templates Public Pictures Music Downloads Documents Desktop  
  
(kali@kali)-[~]  
$ ls -F  
.bash_history      Desktop      .zsh_history      ..      Downloads Pictures  
.local             .face.icon  .ICEauthority     .zshrc      . Public  
.xsession-errors.old .face      Videos           .gnupg      Templates .profile  
.bashrc           Music      Documents         .cache      .vminfo   .bash_logout  
.xsession-errors  .dmrc      .Xauthority       .bashrc.original .config  
  
(kali@kali)-[~]  
$ ls -x  
Desktop Documents Downloads Music Pictures Public Templates Videos  
  
(kali@kali)-[~]  
$
```

```
(kali@kali)-[~]  
$ pwd  
/home/kali  
  
(kali@kali)-[~]  
$ cd Desktop  
  
(kali@kali)-[~/Desktop]  
$ mkdir ayush  
  
(kali@kali)-[~/Desktop]  
$ ls  
ayush first.sh  
  
(kali@kali)-[~/Desktop]  
$ rmdir ayush  
  
(kali@kali)-[~/Desktop]  
$ ls  
first.sh  
  
(kali@kali)-[~/Desktop]  
$ cat first.sh  
Ayush kumar jha  
sapid-500086400  
thank you  
  
(kali@kali)-[~/Desktop]  
$ nano ayush.txt
```

```
(kali㉿kali)-[~/Desktop]
$ pwd
/home/kali/Desktop

(kali㉿kali)-[~/Desktop]
$ cp ayush.txt /home/kali

(kali㉿kali)-[~/Desktop]
$ cd

(kali㉿kali)-[~]
$ ls
ayush.txt  Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos

(kali㉿kali)-[~]
$
```

```
(kali㉿kali)-[~]
$ mv ayush.txt /home/kali/Downloads

(kali㉿kali)-[~]
$ cd Downl
cd: no such file or directory: Downl

(kali㉿kali)-[~]
$ cd Downloads

(kali㉿kali)-[~/Downloads]
$ ls
ayush.txt

(kali㉿kali)-[~/Downloads]
$ rm ayush.txt

(kali㉿kali)-[~/Downloads]
$ ls

(kali㉿kali)-[~/Downloads]
$ cd

(kali㉿kali)-[~]
$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos
```

```
(kali㉿kali)-[~/Desktop]
$ ls
ayush.txt  first.sh

(kali㉿kali)-[~/Desktop]
$ wc ayush.txt
2 1 7 ayush.txt

(kali㉿kali)-[~/Desktop]
$
```

```
(kali@kali)-[~/Desktop]
$ head first.sh
Ayush kumar jha
sapid-500086400
thank you

(kali@kali)-[~/Desktop]
$ tail first.sh
Ayush kumar jha
sapid-500086400
thank you

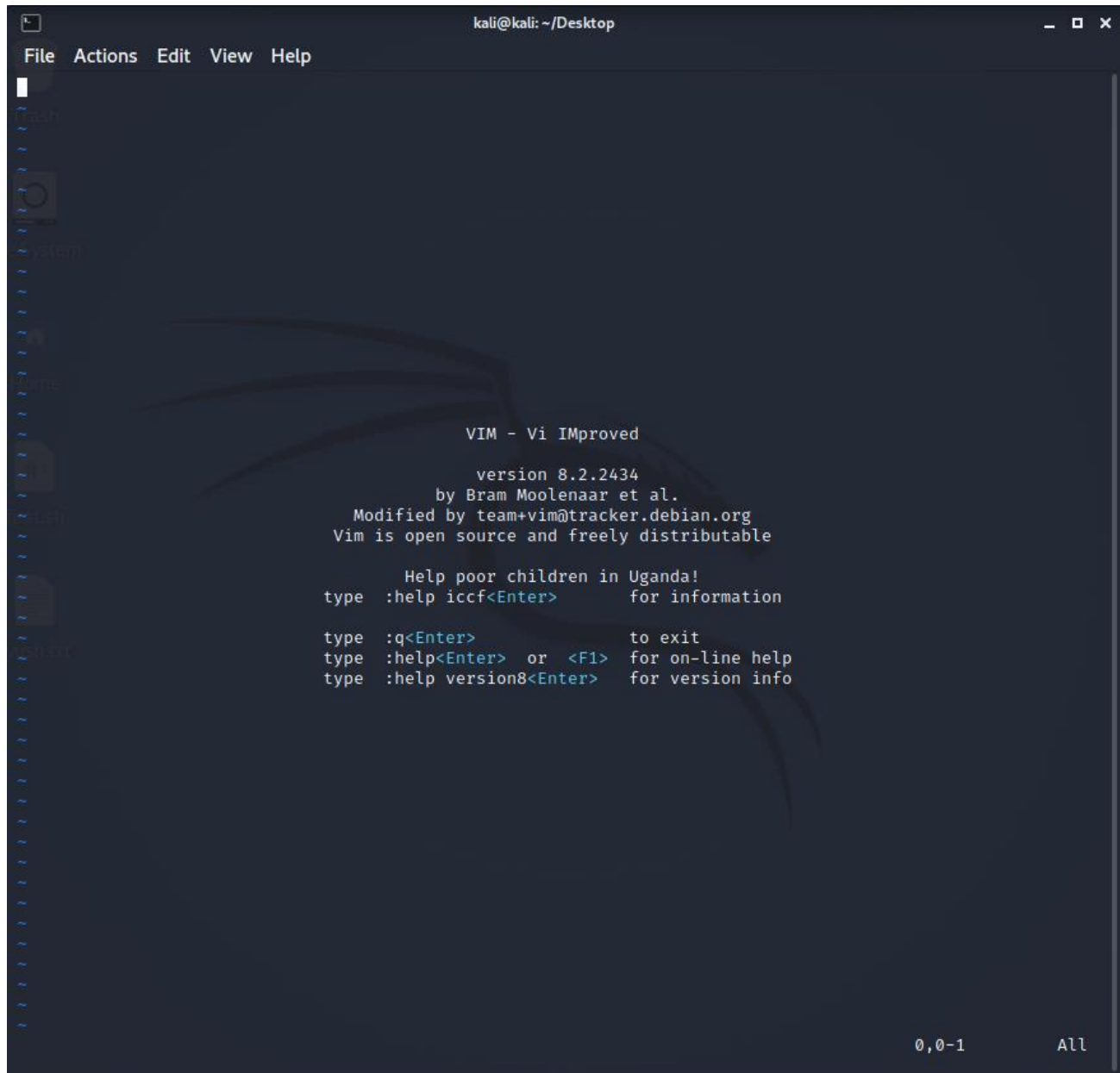
(kali@kali)-[~/Desktop]
$ wc -l first.sh
4 first.sh

(kali@kali)-[~/Desktop]
$ wc -c first.sh
43 first.sh

(kali@kali)-[~/Desktop]
$ wc -w first.sh
6 first.sh
```

2. Practice the following vi/vim commands:

{ Inserting and replacing commands- (i, l, a, A, o, O), Cursor movement in vi- (l, k, j, h), Enter (or) n Enter- (n+, n-, O), Deleting the text from vi- (x, X, nx, nX, dw, ndw, db, ndb), Saving and quitting from vi- (q, w, wq, q!, x) Inserting and replacing commands- i, l, a, A, o, O Deleting the text from vi- (x, X, nx, nX, dw, ndw, db, ndb), Undoing the mistakes-(u, :redo), Ending the editing session by using ZZ and :wq, Moving the cursor by characters and words- (f (character), F(character), w/W, b/B), Moving the cursor by sentences and paragraphs, Moving the cursor within the screen, Searching for a character and string }



```
kali@kali: ~/Desktop
File Actions Edit View Help

VIM - Vi IMproved

version 8.2.2434
by Bram Moolenaar et al.
Modified by team+vim@tracker.debian.org
Vim is open source and freely distributable

Help poor children in Uganda!
type :help iccf<Enter> for information

type :q<Enter> to exit
type :help<Enter> or <F1> for on-line help
type :help version8<Enter> for version info

0,0-1 All
```

i : This key is used to Insert characters to left of cursor .

I : This key is used to Insert characters at beginning of line.

a : This key is used to Insert characters to right of cursor.

A : This key is used to put the cursor after at the end of the line.

o : This key is used to put the cursor below the line.

O : This key is used to puts the cursor above the line.

h: This key is used to move left one character.

j: This key is used to move down one line.

k: This key is used to move up one line.

l: This key is used to move right one character.

x: This key is used to delete character at the cursor.

nx: This key is used to delete the number of characters specified by n.

nX: This key is used to delete n characters before the current character.

dw: This key is used to delete from the current cursor location to the next word.

Ctrl +h : This key is used to delete the character before the cursor during insert mode.

Ctrl + n : This key is used to insert next match before the cursor during insert mode.

:q : This key is used to quit the Vim.

:w : This key is used to save the file.

:wq : This key is used to write (save) and quit.

:q! : This key is used to quit and throw away unsaved changes.

x: This key is used to save file and exit.

u : This key is used to undo previous command .

redo: This key is used to redo a change.

w/W: This key is used to jump forwards to the start of the word.

b/B: This key is used to jump backwards to the start of the word.

f: This key is used to find character.

/string : This key is used to search for string

/string : This key is used to search for string