```
overide@Atul-HP: ~
overide@Atul-HP:~$ ls -l
total 212
drwxrwxr-x  5 overide overide  4096 May 19 03:45 acadenv
drwxrwxr-x  4 overide overide  4096 May 27 18:20 acadview_demo
drwxrwxr-x 12 overide overide  4096 May  3 15:14 anaconda3
drwxr-xr-x  6 overide overide  4096 May 31 16:49 Desktop
drwxr-xr-x  2 overide overide  4096 Oct 21  2016 Documents
drwxr-xr-x  7 overide overide 40960 Jun  1 13:09 Downloads
-rw-r--r--  1 overide overide  8980 Aug  8  2016 examples.desktop
-rw-rw-r--  1 overide overide 45005 May 28 01:40 hs_err_pid1971.log
-rw-rw-r--  1 overide overide 45147 Jun  1 03:24 hs_err_pid2006.log
drwxr-xr-x  2 overide overide  4096 Mar  2 18:22 Music
drwxrwxr-x 21 overide overide  4096 Dec 25 00:13 Mydata
drwxrwxr-x  2 overide overide  4096 Sep 20  2016 newbin
drwxrwxr-x  5 overide overide  4096 Dec 20 22:44 nltk_data
drwxr-xr-x  4 overide overide  4096 May 31 20:46 Pictures
drwxr-xr-x  2 overide overide  4096 Aug  8  2016 Public
drwxrwxr-x  2 overide overide  4096 May 31 19:49 scripts
drwxr-xr-x  2 overide overide  4096 Aug  8  2016 Templates
drwxr-xr-x  2 overide overide  4096 Feb 14 11:22 test
drwxr-xr-x  2 overide overide  4096 Mar 11 13:27 Videos
drwxrwxr-x  2 overide overide  4096 Sep  1  2016 xdm-helper
overide@Atul-HP:~$
```

Source: https://www.geeksforgeeks.org/introduction-linux-shell-shell-scripting/

LINUX FUNDAMENTALS PROJECT:
PERSONAL LINUX

Name: Muhd Fazil Istamar

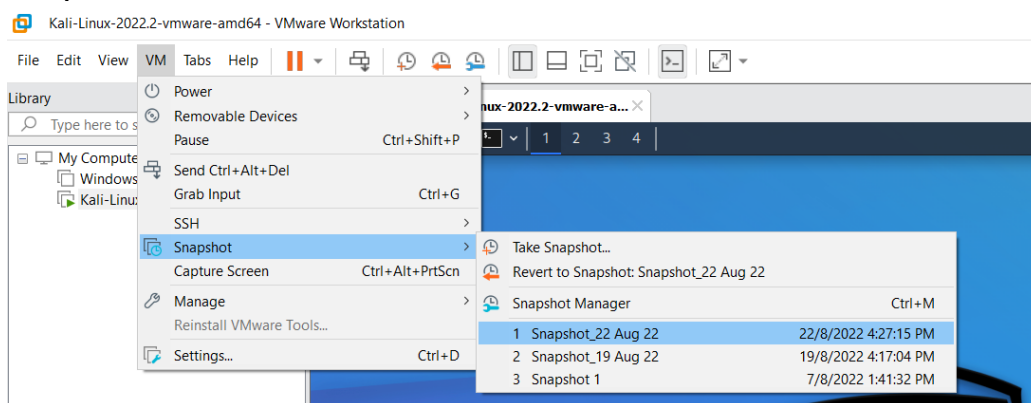Class: Centre for Cybersecurity (Batch – CFC240722)

Trainer Name: James Lim

Objective

Create your own Kali Linux Virtual Machine with your own shell and name banner.

Project

A. <u>Snapshot of Kali Linux</u>

B. <u>Creation of new user and addition of new user to 'sudo' group</u>
- Created a new user 'mdfazil' using command: sudo adduser mdfazil
- Added new user to 'sudo' user group using command: sudo usermod -aG sudo mdfazil
- Checked if the user has been created using command: cat /etc/passwd | grep mdfazil

- Checked the user group memberships of user 'mdfazil' using command: id mdfazil

C. <u>Change of user 'mdfazil' shell language</u>
- Logged in to Kali Linux as user 'mdfazil'
- Searched for user 'mdfazil' in passwd file using command: cat /etc/passwd | grep mdfazil
- Changed the shell language to zsh using command: sudo usermod --shell /bin/zsh mdfazil
- Verified the shell language of user 'mdfazil' using the same 1st command

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D. Figlet – Name Banner

- Installed figlet using command: **sudo apt-get install figlet**

```
┌──(mdfazil㉿kali)-[~]
└─$ sudo apt-get install figlet
Reading package lists ... Done
Building dependency tree ... Done
Reading state information ... Done
figlet is already the newest version (2.2.5-3+b1).
The following packages were automatically installed and are no longer required:
  liblttng-ust-ctl4 liblttng-ust0
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 233 not upgraded.
```

- Locate .zshrc file using command: **locate .zshrc**

```
┌──(mdfazil㉿kali)-[~]
└─$ locate .zshrc
/etc/skel/.zshrc
/etc/zsh/newuser.zshrc.recommended
/etc/zsh/newuser.zshrc.recommended.original
/home/fazil/.zshrc
/home/kali/.zshrc
/home/newuser/.zshrc
/usr/share/doc/zsh-common/examples/carstenh.zshrc
/usr/share/doc/zsh-common/examples/old/jhm.zshrc
/usr/share/kali-defaults/etc/zsh/newuser.zshrc.recommended
```

- Checked for list of fonts available by accessing **/usr/share/figlet** using **'ls'** command

```
┌──(mdfazil㉿kali)-[/usr/share/figlet]
└─$ ls
646-ca2.flc  646-es2.flc  646-it.flc   646-pt.flc   8859-4.flc  ascii9.tlf     bigmono9.tlf  emboss.tlf   jis0201.flc  mono12.tlf   slant.flf     smmono12.tlf  term.flf
646-ca.flc   646-es.flc   646-jp.flc   646-se2.flc  8859-5.flc  banner.flf     block.flf     frango.flc   koi8r.flc    mono9.tlf    small.flf     smmono9.tlf   upper.flc
646-cn.flc   646-fr.flc   646-kr.flc   646-se.flc   8859-7.flc  bigascii12.tlf bubble.flf    future.tlf   lean.flf     moscow.flc   smascii12.tlf smscript.flf  ushebrew.flc
646-cu.flc   646-gb.flc   646-no2.flc  646-yu.flc   8859-8.flc  bigascii9.tlf  circle.tlf    hz.flc       letter.tlf   pagga.tlf    smascii9.tlf  smshadow.flf  uskata.flc
646-de.flc   646-hu.flc   646-no.flc   8859-2.flc   8859-9.flc  big.flf        digital.tlf   ilhebrew.flc mini.flf     script.flf   smblock.tlf   smslant.flf   utf8.flc
646-dk.flc   646-irv.flc  646-pt2.flc  8859-3.flc   ascii12.tlf bigmono12.tlf  emboss2.tlf   ivrit.flf    mnemonic.flf shadow.flf   smbraille.tlf standard.flf  wideterm.tlf
```

- New fonts can be installed if the default fonts are not to user liking:-

1) Google for figlet fonts github

2) Navigate to one of the link:-

   https://github.com › xero › figlet-fonts

   my collection of figlet / toilet ascii art fonts - GitHub

   my collection of figlet / toilet ascii art fonts. Contribute to xero/**figlet-fonts** development by creating an account on **GitHub**.

3) Click on Code button and copy the HTTPS URL

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4) Navigate back to CLI and access the user home directory; create a new folder. Keyed in the command and paste the HTTPS URL: git clone <Paste URL>
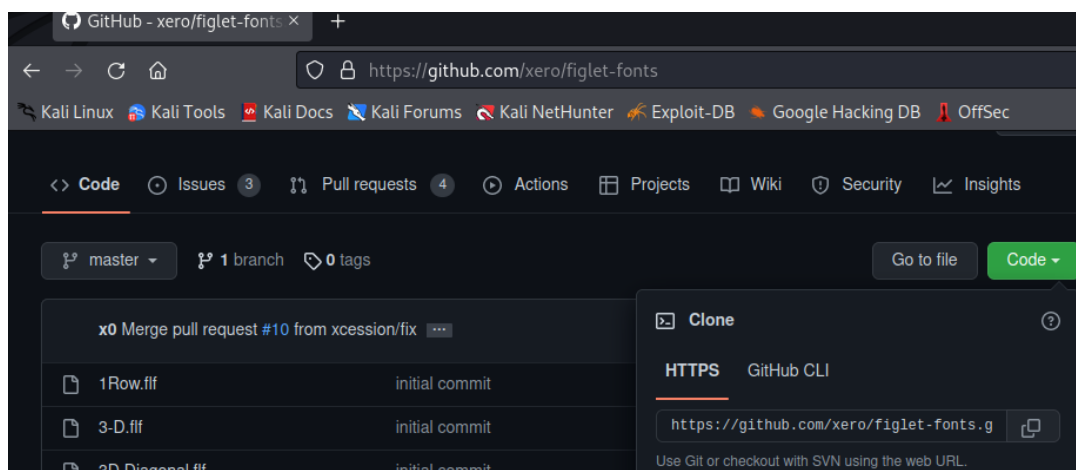
```
┌──(mdfazil㉿kali)-[/usr/share/figlet]
└─$ cd ~

┌──(mdfazil㉿kali)-[~]
└─$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos

┌──(mdfazil㉿kali)-[~]
└─$ mkdir FigletFonts

┌──(mdfazil㉿kali)-[~]
└─$ ls
Desktop  Documents  Downloads  FigletFonts  Music  Pictures  Public  Templates  Videos

┌──(mdfazil㉿kali)-[~]
└─$ cd FigletFonts

┌──(mdfazil㉿kali)-[~/FigletFonts]
└─$ git clone https://github.com/xero/figlet-fonts.git
Cloning into 'figlet-fonts' ...
remote: Enumerating objects: 439, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (5/5), done.
remote: Total 439 (delta 0), reused 3 (delta 0), pack-reused 434
Receiving objects: 100% (439/439), 1.29 MiB | 5.69 MiB/s, done.
Resolving deltas: 100% (42/42), done.
```

5) Accessed the figlet-fonts folder and list it out using command

6) Removed the README.md file using command: rm README.md

7) All this font files were moved to /usr/share/figlet/ using this command:
sudo mv ~/FigletFonts/figlet-fonts/* /usr/share/figlet

8) Access /usr/share/figlet/ folder directory and list the contents to check if new font files (*.flf) have been moved over.

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- Installed lolcat to get a rainbow effect on terminal text using command: sudo apt-get install lolcat

- Try out the figlet on the terminal using this command: figlet -cf 3d "Muhd Fazil"

-cf : (-c) Centralize the word and (-f) choose a font in /usr/share/figlet

3d : Name of the font file stored in /usr/share/figlet

"Muhd Fazil" : Choice of text

- Pipe through the text of figlet through another application 'lolcat' that will add in rainbow colours to the text using this command: figlet -cf 3d "Muhd Fazil" | lolcat

- Open .zshrc file using Nano editor in user's home folder nano .zshrc

- Keyed in the figlet commands: figlet -cf "Muhd Fazil" | lolcat. Saved and exited from the terminal. Restarted Kali Linux and login as user 'mdfazil'. Launched the terminal.

E. Script – Details of the User

- Accessed user Created a new script file using command: touch UD.zsh
- The following script commands are keyed into touch UD.zsh

```zsh
#! /bin/zsh

user=$(whoami)
echo "User Logged in as: $user"
echo

directory=$(pwd)
echo "The directory is: $directory"
echo

SL=$(echo $SHELL)
echo "Your Shell Language is: $SL"
echo

iIP=$(ifconfig | grep broadcast | awk '{print$2}')
```



```zsh
echo "User Internal IP Address: $iIP"
echo

DG=$(route | grep UG | awk '{print$2}')
```



```zsh
echo "Default Gateway: $DG"
```

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- Run the script using this command: zsh UD.zsh

- Pipe through the script to lolcat for colourful line entries: zsh UD.zsh | lolcat

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