NATIONAL UNIVERSITY OF MODERN LANGUAGES ISLAMABAD

Operating System (Lab Task 1)

Lab task: 01

Submitted to

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Question # 01

• Start another shell. Enter each of the following commands in turn.

i.   Date:
Displays the current date and time

```
create_user@DESKTOP-KM1S3PK:~$ date
Fri Oct  4 18:03:13 PKT 2024
create_user@DESKTOP-KM1S3PK:~$ _
```

ii. whoami:
Shows the current logged-in user's name.

```
Try: sudo apt install <deb name>
create_user@DESKTOP-KM1S3PK:~$ whoami
create_user
create_user@DESKTOP-KM1S3PK:~$
```

iii. hostname:
Outputs the system's network name.

```
create_user@DESKTOP-KM1S3PK:~$ hostname
DESKTOP-KM1S3PK
create_user@DESKTOP-KM1S3PK:~$ _
```

iv. uname:
Prints system information (e.g., OS, kernel version).

```
create_user@DESKTOP-KM1S3PK:~$ uname
Linux
create_user@DESKTOP-KM1S3PK:~$
```

v. uptime:
Displays how long the system has been running.

```
create_user@DESKTOP-KM1S3PK:~$ uptime
 18:10:22 up 9 min,  1 user,  load average: 0.00, 0.09, 0.08
create_user@DESKTOP-KM1S3PK:~$
```

Question # 02

a. Use the ls command to see if you have any files.

This will list all files and directories in the current folder.

```
18:10:22 up 9 min,  1 user,  load
create_user@DESKTOP-KM1S3PK:~$ ls
create_user@DESKTOP-KM1S3PK:~$
```

b. Create a new file using the cat command as follows:

$ cat > hello.txt :

Entering command

```
create_user@DESKTOP-KM1S3PK:~$ ls
create_user@DESKTOP-KM1S3PK:~$ cat > hello.txt
```

Hello world!

This is a text file:

After typing the command, entering the following text

```
create_user@DESKTOP-KM1S3PK:~$ ls
create_user@DESKTOP-KM1S3PK:~$ cat > hello.txt
Hello World
this is a txt file
```

c. Press Enter at the end of the last line, then Ctrl+D to denote the end of the file.

Once the text is entered, pressing **Enter**, and then pressing **Ctrl + D** to save and exit.

```
create_user@DESKTOP-KM1S3PK:~$ cat > hello.txt
Hello World
this is a txt file
create_user@DESKTOP-KM1S3PK:~$
```

d. Use ls again to verify that the new file exists.

This shows hello.txt among the files.

```
create_user@DESKTOP-KM1S3PK:~$ ls
hello.txt
create_user@DESKTOP-KM1S3PK:~$
```

e. Display the contents of the file:

This will print the content of hello.txt to the terminal.

```
hello.txt
create_user@DESKTOP-KM1S3PK:~$ cat hello.txt
Hello World
this is a txt file
create_user@DESKTOP-KM1S3PK:~$
```

f. Display the file again, but use the cursor keys to execute the same command again without having to retype it.

- Press the **up arrow key** on your keyboard to bring back the last command (cat hello.txt) without retyping it.
- Press **Enter** to execute the command again.

```
create_user@DESKTOP-KM1S3PK:~$ cat hello.txt
Hello World
this is a txt file
create_user@DESKTOP-KM1S3PK:~$ cat hello.txt
Hello World
this is a txt file
create_user@DESKTOP-KM1S3PK:~$
```

Question # 03

a. Create a second file. Call it secret-of-the-universe, and put in whatever content you deem appropriate.

This creates a file named secret-of-the-universe and allows us to enter content interactively.

```
this is a txt file
create_user@DESKTOP-KM1S3PK:~$ cat > secret_of_the_universe
The universe is filled with fairies, elves, pixies and humans. Believe it or not this is true :)
create_user@DESKTOP-KM1S3PK:~$
```
b.

Check its creation with ls:

Now we Lists files in the current directory to verify the creation of secret-of-the-universe.

```
The universe is filled with fairies,
create_user@DESKTOP-KM1S3PK:~$ ls
hello.txt   secret_of_the_universe
create_user@DESKTOP-KM1S3PK:~$
```

c. Display the contents of this file. Minimize the typing needed to do this:

i. Scroll back through the command history to the command you used to create the file:

Using the **up arrow key** to navigate to the last cat command.

ii. Change that command to display secret-of-the-universe instead of creating it:

Editing the previous command by replacing > with a space and removing any input redirection, like so:

```
The universe is filled with fairies, elves, pixies and humans. Believe it or not this is true :)
create_user@DESKTOP-KM1S3PK:~$ cat secret_of_the_universe
The universe is filled with fairies, elves, pixies and humans. Believe it or not this is true :)
create_user@DESKTOP-KM1S3PK:~$ _
```

Question # 04

After each of the following steps, use ls and cat to verify what has happened.

a. Copy secret-of-the-universe to a new file called answer.txt. Use Tab to avoid typing the existing file's name in full.

This copies the contents of secret-of-the-universe into a new file answer.txt.

```
The universe is filled with fairies, elves, pixies and humans. Beli
create_user@DESKTOP-KM1S3PK:~$ cp secret_of_the_universe answer.txt
```

b. Now copy hello.txt to answer.txt. What's happened now?

This overwrites the contents of answer.txt with the contents of hello.txt.

```
create_user@DESKTOP-KM1S3PK:~$ cp hello.txt answer.txt
```

c. Delete the original file, hello.txt.

This removes the file hello.txt from the current directory.

```
create_user@DESKTOP-KM1S3PK:~$ cp hello.txt
create_user@DESKTOP-KM1S3PK:~$ rm hello.txt
```

d. Rename answer.txt to message.

This renames the file answer.txt to message.

```
create_user@DESKTOP-KM1S3PK:~$ rm hello.txt
create_user@DESKTOP-KM1S3PK:~$ mv answer.txt message
```

e. Try asking rm to delete a file called missing. What happens?

If missing doesn't exist, an error message will be shown stating the file doesn't exist.

```
create_user@DESKTOP-KM1S3PK:~$ mv answer.txt message
create_user@DESKTOP-KM1S3PK:~$ rm missing
rm: cannot remove 'missing': No such file or directory
```

f. Try copying secret-of-the-universe again, but don't specify a filename to which to copy. What happens now?

An error will occur because a destination filename is required for the cp command.

```
create_user@DESKTOP-KM1S3PK:~$ cp secret_of_the_universe
cp: missing destination file operand after 'secret_of_the_universe'
Try 'cp --help' for more information.
create_user@DESKTOP-KM1S3PK:~$ ls
message  secret_of_the_universe
```

←——————————————→