

**NATIONAL UNIVERSITY OF MODERN LANGUAGES**  
**ISLAMABAD**



**Operating System (Assignment 1)**

**Assignment: 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.

```
this is a txt file
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:

```
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`.

```
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
```

