



**Usman Institute of Technology**  
**Department of Computer Science**  
**Fall 2022**

**CS312 – Operating Systems**  
**Lab #14**

**Objective:**  
**Open Ended LAB**

To construct GUI based script that behaves like an Operating System

Name of Student	
Student ID	
Date of Lab Conducted	
Marks Obtained	
Remarks	
Signature	

**Objective:** To construct GUI based script that behaves like an Operating System.

**Requirements:**

Your Operating System should have the following properties.

1. It allows you to create folders and files.
2. It allows you to change rights of your files.
3. It can help you in searching files.
4. It allows you to create processes and threads that perform specific tasks

**For example**

-Create a process that sorts array in ascending order.

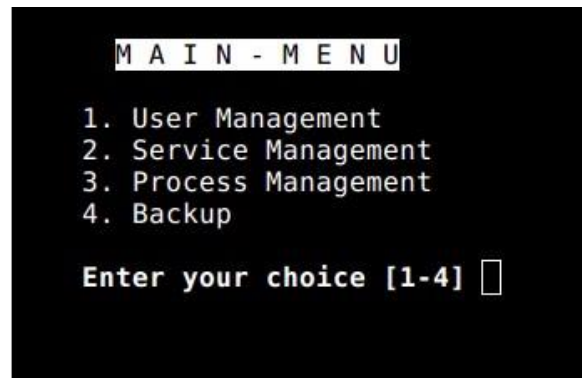
-Create multiple threads that may help in solving matrix operations etc.

5. It allows you to display processes like a task manager in Windows and should allow to kill any selected process.
6. Allows to open applications like Firefox, Image viewer etc.
7. Allows to share data between processes such that output of one process becomes input of another. Provide sub menu to select Process1 and Process2 that gives input or input or vice versa.
8. Allows to write Linux C/Python programs to create your own process that can perform any desirable task. Provide options in user sub-menu to execute and delete that program.

Use dialog boxes, file browsers, and other common "windowing" controls and techniques to interact with your users for more natural conversations so that “*You present information, ask for a response, and react accordingly 😊*”

Your script should have Main menu to select operations mentioned above. Main menu items may have further sub-menu for more natural and friendlier UI.

**For Example:**



Your script (**OS**) should use C/Python programs when creating processes, threads and killing processes.

**-You can add further options into your script to make your OS more useful.**

**-Make necessary assumptions to design your OS that implements all the required options.**