

# MAWLANA BHASHANI SCIENCE AND TECHNOLOGY UNIVERSITY

SANTOSH, TANGAIL-1902



DEPARTMENT OF INFORMATION AND COMMUNICATION TECHNOLOGY

## Lab Report

**Lab Report No : 01**

**Lab Report on : Working of OS with Process**

**Course Title : Operating System Lab**

**Course Code : ICT-2202**

Submitted By	Submitted To
Name: Kuldip Saha Mugdha ID: IT-22018 2nd Year, 2nd Semester Session: 2021-2022 Dept. of ICT, MBSTU	Mr. Md. Anowar Kabir Lecturer DEPARTMENT OF INFORMATION AND COMMUNICATION TECHNOLOGY MAWLANA BHASHANI SCIENCE AND TECHNOLOGY UNIVERSITY

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## Introduction:

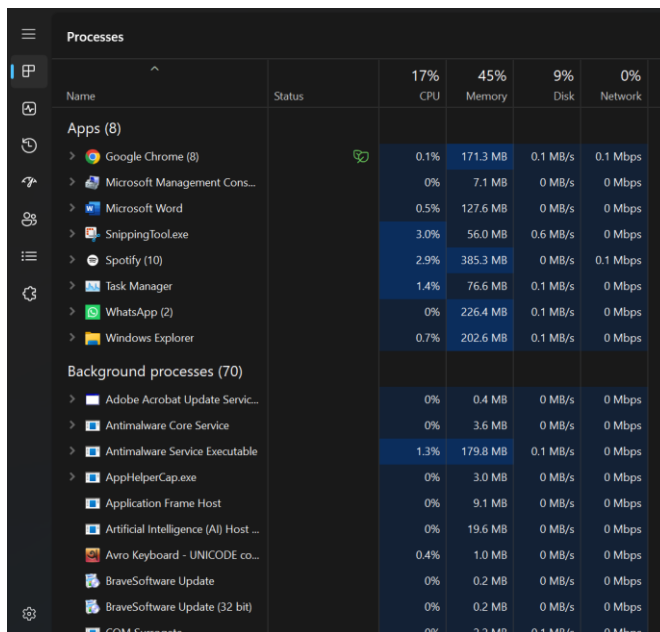
Operating System (OS) play a crucial role in managing computer hardware and software resources. They enable processes to execute, allow user and system configurations through tools like **gpedit.msc** and **regedit**, and provide functionalities such as task management and file sharing. This report explores the mechanisms involved in process handling, system customization and file sharing, which are pivotal for understanding OS functionality.

## Objectives:

- Understand the concept of processes and their management in an operating system (OS).
- Explore the uses of **gpedit.msc** and **regedit** tools.
- Learn the application of the **taskkill** command.
- Comprehend file-sharing mechanisms in a networked environment.

## Theory:

**3.1 Processes in OS:** It processes an instance of a program in execution. The OS` is responsible for process creation, execution, and termination. Tools like task manager in Windows allow users to view and manage processes.



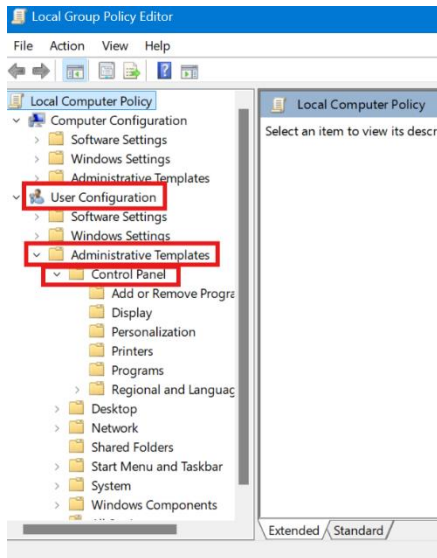
The screenshot displays the Windows Task Manager interface, specifically the 'Processes' tab. It is divided into two sections: 'Apps (8)' and 'Background processes (70)'. Each process is listed with its name, status, and resource usage (CPU, Memory, Disk, and Network). The 'Apps' section lists Google Chrome (8), Microsoft Management Console, Microsoft Word, SnippingTool.exe, Spotify (10), Task Manager, WhatsApp (2), and Windows Explorer. The 'Background processes' section lists Adobe Acrobat Update Service, Antimalware Core Service, Antimalware Service Executable, AppHelperCap.exe, Application Frame Host, Artificial Intelligence (AI) Host, Avro Keyboard - UNICODE co..., BraveSoftware Update, BraveSoftware Update (32 bit), and COM Surrogate.

Name	Status	17% CPU	45% Memory	9% Disk	0% Network
<b>Apps (8)</b>					
Google Chrome (8)		0.1%	171.3 MB	0.1 MB/s	0.1 Mbps
Microsoft Management Console		0%	7.1 MB	0 MB/s	0 Mbps
Microsoft Word		0.5%	127.6 MB	0 MB/s	0 Mbps
SnippingTool.exe		3.0%	56.0 MB	0.6 MB/s	0 Mbps
Spotify (10)		2.9%	385.3 MB	0 MB/s	0.1 Mbps
Task Manager		1.4%	76.6 MB	0.1 MB/s	0 Mbps
WhatsApp (2)		0%	226.4 MB	0.1 MB/s	0 Mbps
Windows Explorer		0.7%	202.6 MB	0.1 MB/s	0 Mbps
<b>Background processes (70)</b>					
Adobe Acrobat Update Service		0%	0.4 MB	0 MB/s	0 Mbps
Antimalware Core Service		0%	3.6 MB	0 MB/s	0 Mbps
Antimalware Service Executable		1.3%	179.8 MB	0.1 MB/s	0 Mbps
AppHelperCap.exe		0%	3.0 MB	0 MB/s	0 Mbps
Application Frame Host		0%	9.1 MB	0 MB/s	0 Mbps
Artificial Intelligence (AI) Host		0%	19.6 MB	0 MB/s	0 Mbps
Avro Keyboard - UNICODE co...		0.4%	1.0 MB	0 MB/s	0 Mbps
BraveSoftware Update		0%	0.2 MB	0 MB/s	0 Mbps
BraveSoftware Update (32 bit)		0%	0.2 MB	0 MB/s	0 Mbps
COM Surrogate		0%	2.2 MB	0.1 MB/s	0 Mbps

**3.2 gpedit.msc:** Group Policy Editor (gpedit.msc) is a Windows tools used to configure system settings and enforce administration policies. It allows granular control over user and computer settings. It affects local group policy, influencing system behavior without alerting registry values directly.

**#Example:** Disabling access to the Control Panel:

1. Open gpedit.msc via Run (**Win+R** -> **type gpedit.msc**).
2. Navigate to **User Configuration > Administrative Templates > Control Panel**.
3. Enable the policy **Prohibit access to Control Panel and PC settings**.

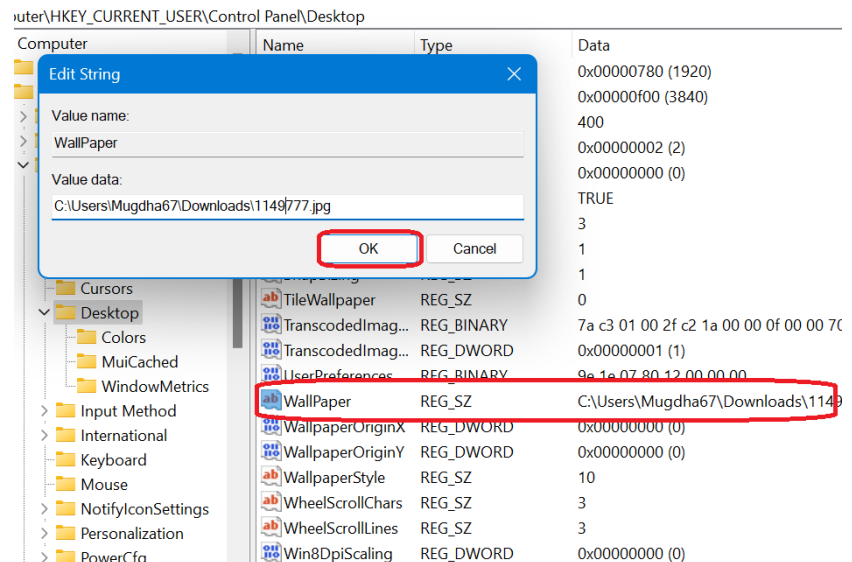
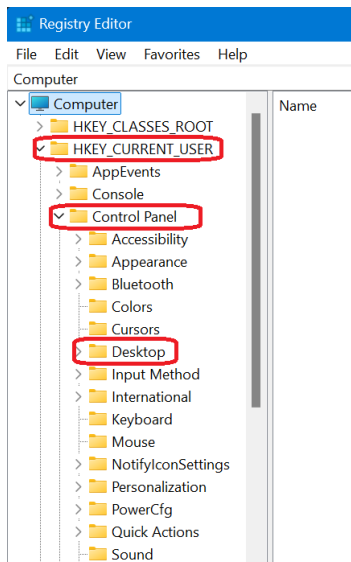


description.	Setting	State
	Add or Remove Programs	
	Display	
	Personalization	
	Printers	
	Programs	
	Regional and Language Options	
	Hide specified Control Panel items	Not config
	Always open All Control Panel Items when opening Control P...	Not config
	Prohibit access to Control Panel and PC settings	Not config
	Show only specified Control Panel items	Not config
	Settings Page Visibility	Not config

**3.3 regedit:** Registry Editor (regedit) is used to view and modify the Windows registry, a hierarchical database storing system and application settings. It provides a direct way to modify system configurations and troubleshoot issues.

**#Example:** Changing the default wallpaper:

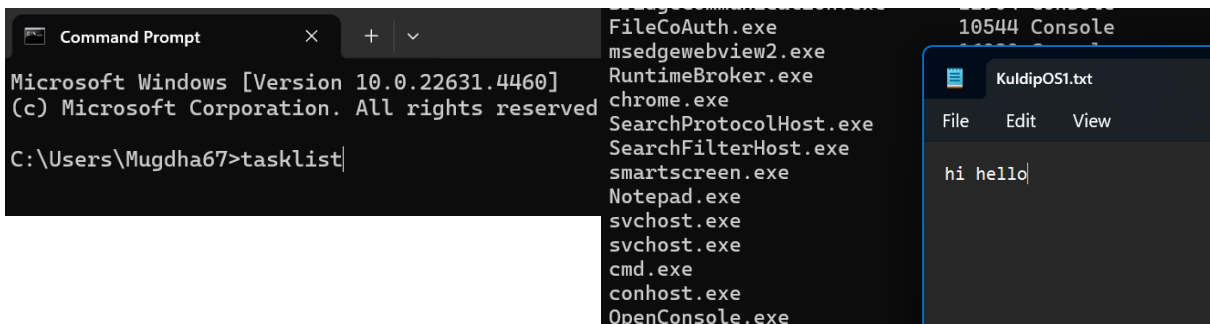
1. Open regedit via Run (**Win+R** -> **type regedit**).
2. Navigate to **HKEY\_CURRENT\_USER\Control Panel\Desktop**.
3. Modify the value of wallpaper to the desired file path.
4. Refresh the desktop to apply changes.



**3.4 Process/Task Kill:** The taskkill command terminates running processes by specifying their name or Process ID (PID).

**#Example:**

1. Open Command Prompt (**Win+R -> type cmd**).
2. Find the PID using tasklist.
3. Kill the process using taskkill /IM notepad.exe.

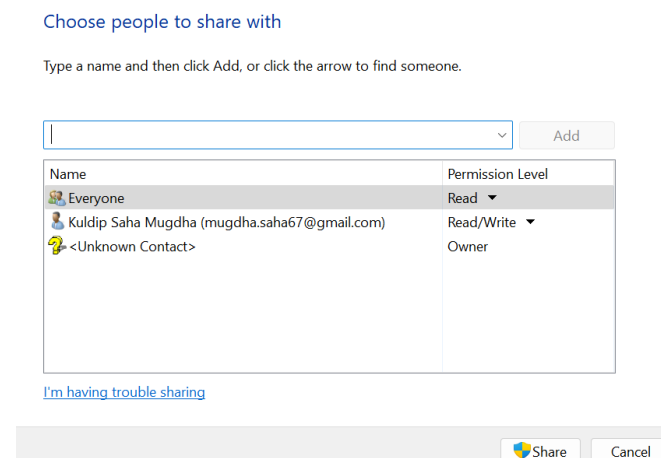
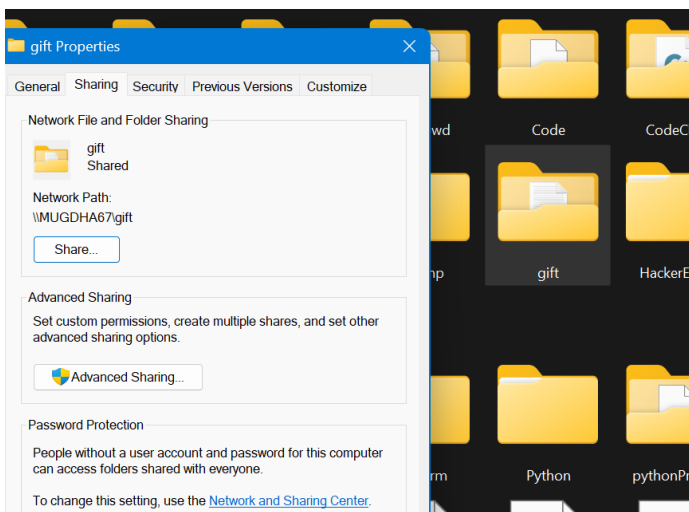


```
C:\Users\Mugdha67>taskkill /IM notepad.exe  
SUCCESS: Sent termination signal to the process "Notepad.exe" with PID 13764.
```

**3.5 File Sharing:** File sharing enables the transfer of files between devices over a network.

**#Steps:**

1. Open Command Prompt (**Win+R -> type cmd**).
2. Click Share and add everyone.
3. Provide access permission (I used Read).
4. Access the shared folder using network path (<\\MUGDHA67\gift>).



**Results:**

1. Successfully enabled the Control Panel using gpedit.msc.
2. Changed the default wallpaper using regedit.
3. Terminated a specific process (Notepad.exe) using taskkill command.
4. Shared a folder and accessed it on another laptop within the same network.

**Discussion:**

Understanding OS functionalities, such as process management and system customization, enhances troubleshooting and administrative capabilities. Tools like gpedit.msc and regedit provide advanced configuration options, but improper usage can lead to system instability. Similarly, the taskkill command is a powerful method for managing unresponsive processes. File sharing demonstrates the collaborative aspect of modern operating systems. Future work could include exploring automation of these tasks using scripts for efficiency.