

## Week 1: Basic User and File Management Using Windows Command Line

### Lab Title:

User Management, File Operations, and Basic Command-Line Tasks in Windows

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### Objective:

By the end of this lab, students will be able to:

- Create and manage user accounts using the Windows Command Prompt.
  - Navigate the file system using the command line.
  - Perform basic file operations (create, rename, move, delete files).
  - Apply basic permissions to files and directories.
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### Policies to Apply:

1. **User Access Policy:** Ensure proper user account creation and management to maintain access control.
  2. **Data Security Policy:** Ensure only authorized users have access to sensitive data through proper file permissions.
  3. **Backup Policy:** Regularly back up critical files.
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### Materials:

- A Windows machine with administrator access.
  - Command Prompt (cmd.exe).
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### Lab Instructions:

#### Step 1: User Management

1. **Open Command Prompt as Administrator:**
  - Search for `cmd` in the start menu, right-click, and select **Run as administrator**.
2. **Create a New User:**

Use the `net user` command to create a new user named `student1` with a password `P@ssw0rd`:

bash

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```
net user student1 P@ssw0rd /add
```

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Verify that the user was created by viewing the list of users:

bash

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```
net user
```

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### 3. Switch to the New User Account:

Switch to the `student1` user account using the following command:

bash

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```
runas /user:student1 cmd.exe
```

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- Enter the password when prompted (`P@ssw0rd`).

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## Step 2: File Operations

### 1. Navigate to the Home Directory:

Change to the `C:\Users\student1` directory (replace `student1` with the username you created):

bash

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```
cd C:\Users\student1
```

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### 2. Create a New Directory:

Create a new directory called `week1_lab`:

bash

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```
mkdir week1_lab
```

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### 3. Navigate into the New Directory:

Move into the `week1_lab` directory:

bash

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```
cd week1_lab
```

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### 4. Create a File:

Create a new file named `task.txt` in the directory:

bash

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```
echo This is my first file in the lab. > task.txt
```

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### 5. View the Contents of the File:

Display the contents of the file:

bash

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```
type task.txt
```

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### 6. Rename the File:

Rename `task.txt` to `summary.txt`:

bash

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```
ren task.txt summary.txt
```

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### 7. Move the File to Another Directory:

Create a new directory named `backup`:

bash

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```
mkdir backup
```

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Move `summary.txt` to the `backup` directory:

bash

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```
move summary.txt backup\
```

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- 8. Delete a File:**

Navigate to the `backup` directory:

bash

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```
cd backup
```

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- Delete the `summary.txt` file:

bash

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```
del summary.txt
```

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### Step 3: File Permissions

#### 1. Set File Permissions:

Go back to the `week1_lab` folder and create a new file:

bash

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```
echo Sensitive data > sensitive.txt
```

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- Apply the **Data Security Policy** by removing access for all users except the owner:

bash

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```
icacls sensitive.txt /inheritance:r  
icacls sensitive.txt /grant student1:F
```

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- 2. View Current Permissions:**

Check the file permissions using `icacls`:

bash

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```
icacls sensitive.txt
```

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## Step 4: Backup and Clean Up

### 1. Backup the Directory:

To follow the **Backup Policy**, create a copy of the `week1_lab` folder:

bash

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```
xcopy C:\Users\student1\week1_lab C:\Users\student1\backup_week1_lab  
/E /I
```

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### 2. Delete the User Account:

- Once the lab is complete, remove the `student1` account:

bash

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```
net user student1 /delete
```