# Step 1: Create a directory named test\_dir

mkdir test\_dir

# Step 2: Change into the test\_dir directory

cd test\_dir

# Step 3: Create an empty file named example.txt

touch example.txt

# Step 4: Rename example.txt to renamed\_example.txt

mv example.txt renamed\_example.txt

### 1. Display the full contents of /etc/passwd:

bash

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cat /etc/passwd

### 🔹 2. Display ****only the first 5 lines****:

bash

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head -n 5 /etc/passwd

### 🔹 3. Display ****only the last 5 lines****:

bash

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tail -n 5 /etc/passwd

✅ Note: /etc/passwd is a system file that contains user account information. It's safe to read, but don’t modify it unless you know what you’re doing.

To find all lines containing the word **"root"** in /etc/passwd, use the grep command like this:

bash

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grep "root" /etc/passwd

### Explanation:

* grep searches for lines that match a pattern (in this case, the word "root").
* This will show any line in /etc/passwd that contains "root" **anywhere** in the line.

### Example Output (typical):

ruby

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root:x:0:0:root:/root:/bin/bash

operator:x:11:0:operator:/root:/sbin/nologin

If you want to match only lines where "root" appears as a **whole word**, use:

bash

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grep -w "root" /etc/passwd

### 1. ****Compress**** test\_dir ****into**** test\_dir.zip****:****

bash

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zip -r test\_dir.zip test\_dir

* -r tells zip to zip recursively (include all files/subdirectories).
* This creates test\_dir.zip in the current directory.

### 🔹 2. ****Unzip**** test\_dir.zip ****into a new directory named**** unzipped\_dir****:****

bash

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mkdir unzipped\_dir

unzip test\_dir.zip -d unzipped\_dir

* -d unzipped\_dir tells unzip to extract the contents into the unzipped\_dir directory.

### ✅ Result:

* test\_dir.zip — the zipped archive.
* unzipped\_dir/test\_dir/ — the extracted contents inside a new folder.

To download a file from a URL using wget, use the following command:

bash

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wget https://example.com/file.txt

### 🔹 Example:

If you want to download a sample text file from the web:

bash

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wget https://www.w3.org/TR/PNG/iso\_8859-1.txt

This will download the file iso\_8859-1.txt to your current directory.

### 🔹 Notes:

* Make sure wget is installed. You can check with:

bash

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wget --version

* If it's not installed, you can install it on:
  + **Ubuntu/Debian**: sudo apt install wget

### Step 1: Create the file

bash

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touch secure.txt

### Step 2: Change permissions to read-only for everyone

bash

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chmod 444 secure.txt

### Explanation:

* 444 means:
  + Owner: read-only (4)
  + Group: read-only (4)
  + Others: read-only (4)

set a new environment variable MY\_VAR with the value "Hello, Linux!" using the export command like this:

bash

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export MY\_VAR="Hello, Linux!"

### To check that it’s set, run:

bash

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echo $MY\_VAR

This should output:

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Hello, Linux!

**Note:** This sets the variable only for the current shell session. To make it permanent, you’d add that export line to your shell’s config file (e.g., ~/.bashrc or ~/.zshrc).