Linux Basics Assignment

# 1. Creating and Renaming Files/Directories

mkdir test\_dir Creates a directory named test\_dir  
cd test\_dir Moves into the test\_dir  
touch example.txt Creates an empty file example.txt  
mv example.txt renamed\_example.txt Renames example.txt to renamed\_example.txt

Explanation:  
- mkdir is used to create directories.  
- touch is used to create an empty file.  
- mv renames or moves files.

# 2. Viewing File Contents

cat /etc/passwd Displays entire content of /etc/passwd  
head -n 5 /etc/passwd Shows the first 5 lines  
tail -n 5 /etc/passwd Shows the last 5 lines

Explanation:  
- cat is used to read file content.  
- head and tail show the first and last few lines respectively.

# 3. Searching for Patterns

grep "root" /etc/passwd Finds all lines containing 'root'

Explanation:  
- grep is used to search for patterns in files.

# 4. Zipping and Unzipping

cd .. Go back to parent directory  
zip -r test\_dir.zip test\_dir Compresses test\_dir into test\_dir.zip  
unzip test\_dir.zip -d unzipped\_dir Extracts into a directory called unzipped\_dir

Explanation:  
- zip -r compresses directories recursively.  
- unzip -d extracts to a specific folder.

# 5. Downloading Files

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

Explanation:  
- wget is used to download files from the internet using a URL.

# 6. Changing Permissions

touch secure.txt Creates a file named secure.txt  
chmod 444 secure.txt Sets read-only permissions for everyone

Explanation:  
- chmod 444 sets read-only permissions for owner, group, and others.

# 7. Working with Environment Variables

export MY\_VAR="Hello, Linux!" Sets a temporary environment variable  
echo $MY\_VAR Displays the value

Explanation:  
- export sets environment variables in the current shell session.