



Introduction to Using the Terminal on a Mac

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Become fluent with the command line

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Part 1: Preliminaries

What is the Command Prompt?

- A **text-based interface** for interacting with your computer
- Execute commands to:
 - Navigate the filesystem
 - Manage files
 - Run programs
- Often more **efficient** than graphical interfaces, especially for developers

Opening the Terminal

To open **Terminal** on a Mac:

1. Press **Command + Space** to open **Spotlight Search**
2. Type **Terminal** and press **Return**
3. Or navigate to:

Applications → Utilities → Terminal

Files and Directory Structure

- macOS organizes files into **directories (folders)**
- The top-level directory is `/` (the **root**)
- Your personal files live in `/Users/your-username`
→ also represented as `~` (**home directory**)

```
pwd
```

Prints the current directory path



Part 2: Common Commands in Terminal



Listing Files in a Directory

```
ls
```

Lists files in the current directory

```
ls -la
```

Lists all files, including hidden ones



Moving Between Directories

```
cd directory-name
```

Change to another directory

```
cd ..
```

Move up one level

```
cd ~
```

Return to home directory

```
cd /Users/your-username/projects
```

Go directly to a specific path

Moving and Copying Files

Move a file:

```
mv file.txt ~/projects
```

Rename a file:

```
mv oldname.txt newname.txt
```

Copy a file:

```
cp file.txt ~/projects
```

Creating Directories

```
mkdir new-folder
```

Creates a new directory

Deleting Files and Directories

Delete a file:

```
rm file.txt
```

Delete an empty directory:

```
rmdir folder
```

Delete a directory and its contents:

```
rm -r folder
```

Part 3: Hidden Files

Understanding Hidden Files

- Files that begin with `.` are hidden
- Examples: `.gitignore`, `.env`

To list hidden files:

```
ls -la
```

Creating and Editing a .env File

Create a hidden file:

```
touch .env
```

Edit using nano:

```
nano .env
```

Type your text → Ctrl + X, then Y, then Return to save.

Viewing File Contents

```
cat .env
```

Displays the contents of .env

Part 4: Exercises

Try these to build confidence with the Terminal:

1. Print your current directory:

```
pwd
```

2. List all files (including hidden ones) in your home directory:

```
ls -la ~
```

3. Create a projects directory:

```
cd ~  
mkdir projects
```

4. Move into it and create a file:

```
cd projects  
touch notes.txt
```


5. Edit and save the file:

```
nano notes.txt
```

6. Copy and move files:

```
cp notes.txt backup.txt  
mv backup.txt ~
```

7. Delete files:

```
rm ~/backup.txt
```

8. Create and view a hidden file:

```
touch .config  
nano .config  
cat .config
```

9. Remove the projects directory (carefully!):

```
cd ~  
rm -r projects
```

You Did It!

You've learned the fundamentals of the Terminal on macOS.

Use your new command-line powers wisely. 