Lab 3: Command Line Utilities; Practicals & Scavenger Hunting

1 Introduction

Welcome, Brave Hunter, to the File Tree Forest. You stand at the edge of a dense, procedurally generated wilderness. This is no ordinary wood; it is a chaotic tangle of directories and recursive roots, a place where data grows wild and unchecked. Deep within this labyrinth lie the Flags, digital beasts that few have the patience to track. But take heed: this forest is a trickster. It is teeming with "wild inodes", false trails, empty files, and thick noise designed to confuse the untrained eye. If you attempt to inspect every leaf and branch manually, you will end up lost in the canopy forever. You cannot wander aimlessly; you must hunt with intent.

Your goal is not just to find a beast, but to follow the bloodline. You must track them in order. Do not stray from the path, for capturing one Flag is the only way to catch the scent of the next. A single clue, hidden in the belly of one file, will point your compass toward the next target.

You enter this domain without bow or steel. Your weapons are your commands, and you must wield them with precision: you are hungry, and a rabbit looks quite delicious now.

Step into the root, Hunter. The hunt begins now.

2 Setup

The Artifact: Download the sealed archive (`.zip`) from the site. Please be quick, The Forest awaits.

The Terrain: Extract the file. A directory named `forest_XXX` will appear. This is your hunting ground.

The Weapon:

- **Unix & macOS Clans:** Use your standard terminal.
- **Microsoft Clan:** You may use **cmd**, but a Unix shell (like WSL or Git Bash) is highly recommended for a sharper edge.

3 Deliverables

When your journey has come to an end, you must return your collection of valuables obtained throughout your adventure.

At the end of this journey you will need to submit flags in order on canvas separated by space, you can varify your flags before submitting on The Lab3 verifier

4 Notes

It is recommended that you record every command that you try, whether successful or not, including a succinct discussion of why that command was chosen and what the expected outcome was and whether that expectation was correct.

The `MAN` pages are painstakingly crafted documentation for most Unix programs filled to the brim with useful information; as such, they are a very good place for information about the usage of commands.

5 Unix Philosophy

The Unix philosophy is a set of principles that are meant to lead the way in design of utilities and programs for the Unix world. Those programs should only do one thing and do it well, rather create a new program then adding a feature to already existing ones; programs should expect there output to be used as input elsewhere thus not clutter it; programs should be tried and tested early on, and thrown out if necessitated by poor design or programming chooses; and furthermore, tools should be used to lighten the load even when it requires the creation of a new one.