COMP 141: Introduction to Computing

Choose Your Own Adventure: *The Phantom of Founders Hall*

An Interactive Linux Command-Line Investigation (`~/ChooseYourOwnAdventureEve`)

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1 Welcome to the Investigation!

Welcome to **Choose Your Own Adventure: *The Phantom of Founders Hall***, a hands-on interactive mystery exercise at the Linux shell!

In this activity, you take on the role of **Eve** (*she/her*), lead investigative reporter for Monmouth Valley College's student newspaper, *The Campus Courant*, and manager of its investigative social media feed. Strange, inconvenient phenomena have been occurring across campus after midnight, and **Associate Dean Bob** (*he/him*) is working overtime—and rather clumsily—to cover them up before next month's admissions tour. With the help (and occasional anxious caution) of your best friend **Alice** (*they/them*), it is up to you to navigate the filesystem, inspect metadata, search and filter files, and uncover the truth behind the haunting.

2 How the Adventure Works

1. **Begin at the Root:** Inside the root directory of the adventure hierarchy (`~/ChooseYourOwnAdventureEve`), you will find a starting file named `STARTHERE.txt`. Display its contents in your terminal to read the opening paragraph of the story.
2. **Choose Your Next Lead:** At the end of each story segment, you will be given **one to three options** for how Eve can proceed with her investigation:

   "[Option N] If you want to [take a specific story action], then [complete a file or directory task]..."

3. **Solve the Shell Task:** Each option provides all the details you need to locate or extract the next story segment, **without** telling you which shell command(s) to use. Using the command-line tools, options, regular expressions, and pipelines you have learned in class, determine and run the appropriate command(s) to uncover the next part of the story.
4. **Beware of Dead Ends & Record Your Trail:** Just like a classic *Choose Your Own Adventure* book, not every choice ends well! Some decisions may lead to a **dead end (failure)** where Eve's investigation is derailed.

Important Guidelines & Tips for Success:

- **Keep a Trail Log:** Keep a scratch text file (stored *outside* of `~/ChooseYourOwnAdventureEve`) or written notes of the file paths and commands you use at each step. If you reach a dead end, you can immediately backtrack to a prior story file and explore a different option without starting over from scratch!
- **Using `sudo` for Permission Changes:** All files inside the adventure hierarchy are owned by users `alice` or `bob`. Whenever a task requires you to change a file's permissions (for instance, to make an unreadable file readable or to make a script executable), you must prefix your permission command with `sudo`.
- **Resetting the Hierarchy:** If you accidentally modify or delete files inside `~/ChooseYourOwnAdventureEve`, you can restore a clean copy at any time using `sudo ./build_the_eve.sh -r`.

3 Setting Up the Adventure (`build_the_eve.sh`)

You can generate the complete adventure hierarchy inside your Linux VM user account using the automated setup script `build_the_eve.sh`.

Step 1: Download the Script with `curl`

The script is hosted publicly on Google Drive (Public File ID: `1Vy5HOAU2zZNeLzpDo6Fg-JouDvJbruGm`) and can be retrieved using the shortened URL https://tinyurl.com/23f24jpn. Retrieve the setup script using `curl`:

```
curl -sSL -o build_the_eve.sh "https://tinyurl.com/23f24jpn"
```

Command breakdown: `-s` enables silent mode, `-S` ensures errors are still shown if the download fails, `-L` follows HTTP redirects, and `-o build_the_eve.sh` saves the script into your current working directory.

Step 2: Make the Script Executable with `chmod`

Grant yourself (the file owner, `u`) execute (`x`) permission on the downloaded script:

```
chmod u+x build_the_eve.sh
```

Step 3: Build and Manage the Adventure Hierarchy

Run the script with `sudo` so it can provision the `alice` and `bob` user accounts, configure the `aliceandbob` group, and populate `~/ChooseYourOwnAdventureEve`:

```
sudo ./build_the_eve.sh         # Builds ~/ChooseYourOwnAdventureEve (default)
sudo ./build_the_eve.sh -r     # Resets ~/ChooseYourOwnAdventureEve to a clean copy
sudo ./build_the_eve.sh -d     # Deletes ~/ChooseYourOwnAdventureEve entirely
```

To activate your membership in the `aliceandbob` group in your active terminal session without logging out, run:

```
newgrp aliceandbob
```

Step 4: Begin Your Investigation!

Navigate into the adventure root directory and read `STARTHERE.txt` to launch your investigation:

```
cd ~/ChooseYourOwnAdventureEve
cat STARTHERE.txt
```