CSE314 Bash Scripting Online - Section C

May 05, 2025

Operation Golden Blueprint
Time: 35 minutes

Overview

You're Rio, deep inside the Bank of Utopia's vault system. The Professor's plan hinges on assembling critical drill parts and blueprints, scattered across various city-named directories. Each file follows the naming convention `Part_##_<category>.dat`, where `##` is a two-digit part number, and `<category>` denotes the part type (e.g., `motor`, `gear`). Time is of the essence; you must organize these files swiftly to ensure the heist proceeds without a hitch.

Objectives

1. **Organize Files:**

   - Traverse through each city directory.
   - Copy all files into a centralized `blueprints/` directory.
   - Rename each file to include its city of origin as a prefix, resulting in the format `<City>_Part_##_<category>.dat`.

2. **Generate Inventory Summary:**

   - Identify files with even-numbered parts (i.e., where `##` is divisible by 2).
   - Count the number of such files per `<category>`.
   - Produce a sorted (on part name) summary file named `inventory_summary.txt` with entries in the format:

     `<category>: <count>`

Sample Directory Structure Before Execution

- 📁 heist
  - 📁 Berlin
    - 📄 Part_01_motor.dat
    - 📄 Part_02_gear.dat
    - 📄 Part_03_motor.dat
  - 📁 Tokyo
    - 📄 Part_04_gear.dat
    - 📄 Part_05_motor.dat

Sample Directory Structure After Execution

- 📁 heist
  - 📁 blueprints
    - 📄 Berlin_Part_01_motor.dat
    - 📄 Berlin_Part_02_gear.dat
    - 📄 Berlin_Part_03_motor.dat
    - 📄 Tokyo_Part_04_gear.dat
    - 📄 Tokyo_Part_05_motor.dat
  - 📄 inventory_summary.txt

Contents of `inventory_summary.txt`

```
gear: 2
```

Command

```
./script.sh heist
```

Submission Guidelines

Important Notes

- Please note that any usage of the internet is strictly prohibited during the assignment.

- Use of any unfair means will be duly punished.

- Submit the source code in Moodle. Failure to submit in Moodle will result in a mark deduction.

- The filename should be `online-StudentID.sh` (e.g., `online-2105XXX.sh`).

- Make sure your script is executable.