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RedHat System Administration I Project
Deadline 7/12/2024

Project: Creating Environment

You are required to create a "Factory" environment of users and groups according to the requirements below.

Please Note That the Project is individual.

Requirements:

- You are required to create 3 groups of the main characters in the factory: **Supervisors**, **Engineers**, and **Operators**.
- **Engineers** and **Operators** groups contain **3** users each (ex. **Engineer1**, **Engineer2**, **Engineer3, Operator1,…**)
- **Supervisors** have only 1 user.
- The Supervisor should assign tasks for each Engineer and Operator besides monitoring their performance. To accomplish this, the supervisor should create **2** directories. One for the **Tasks** and the other for the **Employee Performance.**
- For the **Tasks** directory, the Supervisor should create **2** subdirectories for the **Operators Tasks** and the **Engineers tasks.** Each operator / engineer should be assigned a directory inside the **Operators Tasks / Engineers tasks** directory such that the supervisor can add their tasks in. Only operator and the assigned engineer (ex. Operator1 and Engineer1) can see the assigned tasks for this operator. However, each engineer tasks should not be available for the assigned operator. All tasks will be text-based and the number of assigned tasks is **10** for all employees (ex. **Task1.txt**)
- To evaluate each employee inside the **Employee Performance** directory, the supervisor

needs to monitor the completed tasks of each employee. The supervisor should also create a directory for the **Completed Tasks** which contains initially 6 subdirectories for each employee to store their completed tasks inside. There should be a **Bash script file** executable by each employee once they are done with a task to add the task file inside the corresponding subdirectory inside the **Completed Tasks** directory.

- You might think of this **Bash script** as a function takes 1 argument which is the task file and copy this file into the subdirectory of the employee named after his username below the **Completed Tasks** directory.
- The **Completed Tasks** Files cannot be edited nor deleted by anyone but the owners.
- The Supervisor can monitor the performance of employees each time by executing another **bash script**. This bash script should calculate the KPI for each employee by dividing the number of their completed tasks by the number of their assigned tasks. Such output for the first time executing the script should be a new file named after the employee created under **Employee Performance** directory containing their KPI as a decimal number. If the file is already existed, then new KPI should be appended to its content.
- Permissions should be logical, otherwise an explanation must be provided. You might need to set special permissions.

Important Notes:

- You must submit one pdf file that includes a brief description of all the screenshots of your commands (describing each screenshot underneath). This pdf file should be uploaded on the project folder inside your drive folder.
- An evaluation will be held after the deadline, you might be asked to create, delete or display any of the steps that you did in the project.