Day 1 - Earth Bank

You work as the Linux System Administrator for banks under the parent company Planet Green Financial, Inc. Today, you are at Earth Bank working side-by-side with the new Jr. Systems Administrator Johanas Y. Simon. Your Supervisor gives you the following tasks below:

- Create a directory for Planet Green Financial under / called PlanetGreen and then directories for each bank listed below:

> Earth
>
> Fire
>
> Wind
>
> Water
>
> Heart

- Within each bank's directory, there should be additional directories. There should be a directory for each of the following departments, as well as the subdirectories if listed:

> **IT:**
>
> Management
>
> Engineering
>
> Systems Administration
>
> Security
>
> Networking

> **Executive**

> **HR:** (There should also be a 2023 and 2024 subdirectory in each directory listed)
>
> Management
>
> Audit
>
> Payroll
>
> Benefits
>
> Policies

> **Finance:**

Management

Expense Reports:

    2023:

        A directory for each month of the year

Budgets:

    Proposed

    Actual

Operations:

Management

Customer Care

Sales

- Create users and groups within the system.

The groups are denoted in red. The members below each group are listed, along with their positions and any additional groups.

Naming conventions for users in the system are first initial, middle initial, last name. In the case of no middle initial, use a hyphen to represent the middle initial. If there are 2+ employees that would end up with the same user name, add a number to the end of each username (starting with 1, 2, 3, 4 and so on). The full name should be included for each user.

Executive:

Genoa A. Hattleburg:

    Position: CEO

    Additional Groups: CEO

Arthur S. Johnson

    Position: CFO

    Additional Groups: Finance

Erika N. Graham

    Position: CHRO

    Additional Groups: HR

Daniella S. Sanchez:

    Position: COO

    Additional Groups: Operations

Xavier J. Hurston:

    Position: CIO

    Additional Groups: IT

IT:

Michael R. Jones:

    Position: Director

    Additional Group: IT_Management, Engineering, Systems Administration, Security, Networking

Jessica L. Bach

    Position: Manager, Engineering

    Additional Groups: IT_Management, Engineering

Raphael K. James:

    Position: Associate Developer

    Additional Groups: Engineering

Mona S. Rupert:

    Position: Associate Developer

    Additional Groups: Engineering

Hannah D. St. James:

    Position: Manager, Systems Administration

    Additional Groups: IT_Management, Systems Administration

Donna D. Bradshaw:

    Position: Systems Administrator

    Additional Groups: Systems Administrator

Johanas Y. Simon:

    Position: Jr. Systems Administrator

    Additional Groups: Systems Administrator

David A. Rames:

    Position: Sr. Manager, Security

    Additional Groups: IT_Management, Security

Gordon N. Lee

    Position: Security Analyst

    Additional Groups: Security

Frederico S. North

    Position: Security Analyst

    Additional Groups: Security

Amos K. Long

    Position: Sr. Manager, Networking

    Additional Groups: IT_Management, Networking

Hazel J. Uriah

    Position: Network Engineer

    Additional Groups: Networking

Gary N. Lee

    Position: Network Engineer

    Additional Groups: Networking

HR

Joana L. Henry

Position: Director, Human Resources

Additional Groups: HR_Management, HR

Kyle S. Hendrick

Position: Human Resources Associate

Katrina A. Corinth

Position: Human Resources Associate

Finance

Jonathan S. Brown:

Position: Director of Finance

Additional Groups: Fin_Management

Robert R. Winthrow:

Position: Sr. Financial Associate

Melissa A. Keet:

Position: Sr. Financial Associate

Operations

Tracey E. Smith:

Position: Director of Operations

Additional Group: Op_Management, Customer_Care, Sales

Elizabeth V. Querrell:

Position: Sr. Manager, Customer Care

Additional Group: Op_Management, Customer_Care

Tisha Y. Corson:

Position: Teller 2

Additional Group: Customer_Care

Byron J. Graham:

Position: Teller 3

Additional Group: Customer_Care

Jordan T. Curry:

Position: Sr. Sales Manager

Additional Group: Op_Management, Sales

Bryson J. Gomez:

Position: Commercial Sales Representative

Additional Group: Sales

Alicia T. Stone;

Position: Customer Sales Representative

Additional Group: Sales

Use the tree command (if it is available) on /PlanetGreen to make sure your directory structure is correct. Otherwise, use the ls -lR command to make sure it is done, if you do not know how to install the package for the tree command.

Also verify your users in the appropriate file to make sure they are all there.

- The level of access needs to be modified on files & directories
  - The group corresponding to a department should be the owner of the directory and the file within the directory. (i.e. - the group IT should have group ownership of the IT directory)

- No other department should have any permissions associated with another departments directory. (i.e. - HR should not have any permissions or access to IT's directory).
- The management group of each department should have full rights to the management folder. No one else in the department should have access to the management directory of that department if they are not part of the management group. (i.e. - IT_Management group should be the owner of the Management subdirectory of IT).
- The creator of the file is the only one who can delete the file.
- Genoa Hattleburg should have read access at a bare minimum to all files in the IT, Executive, HR, Finance and Operations directories. If she is a part of the group, she should have the level of access afforded by the group.
- Please note that Genoa Hattleburg is the Interim CEO. She is only here with the company for a while. She will be leaving the company completely when the new CEO is hired. Therefore her role and level of access to information in the system is temporary.

Day 2 - Earth Bank

Effective immediately:

Genoa A. Hattleburg has been fired by the Board of Directors.

- The CFO is now the interim CEO until one can be hired.

- Please ensure that Genoa A. Hattleburg does not have access to the system at all. After her firing, she was heard making threats to a host of individuals. She will never again be employed by Planet Green.

- There is a new initiative within the company for DEIB. Complete the following tasks in regards to this initiative:
    - Create a directory under Planet Green for DEIB
    - The following employees need to be added as members of the group DEIB:
        - All of the Executive Group members
        - IT - Raphael K. James
        - HR - Katrina A. Corinth
        - Finance - Robert R. Winthrow
        - Operations - Tisha Y. Corson

- As this is also meant to be a collaborative space, make sure that no one but the owner of the file can delete any files created.

Day 3 - Earth Bank

- Sarah J. Huckleberry has been hired as the new CEO of Planet Green. She needs a user account created in the system. By default, when she created a file, she should have read & write permissions for her files. Everyone else should just have read access to the files that she creates.

    Sarah should have the same level of access that Genoa Hattleburg had to all files in the IT, Executive, HR, Finance and Operations directories.

- Engineering needs a system account for testing applications called "dev_TEST"

- The Jr. System Administrator needs your help. He is saying his system is running slow. He tells you he ran several dd commands and created a few files. How would you tell him to begin troubleshooting his system?

- You are responsible for making sure the system has the necessary backups. Find the following files and make a copy of the following files and place them in a backup directory you create in the System Administration subdirectory of the IT directory.
    a) shadow
    b) ifcfg-*
    c) resolv.conf
    d) hosts
    e) yum.conf

    *** Additional challenge – create an EC2 instance in your AWS account or in the sandbox. Use ssh to connect to your EC2. Place a secure copy of the backup you created in a directory of your choice in your new EC2 instance.

- The Jr. System Administrator thanks you for helping him earlier. He stated he ran the top command and didn't see SSH running after he booted his computer. How would you inform him to check to make sure SSH starts at boot?