Assignment 5

1. What is a Bash script that creates a user named 'yourName' and adds them to the 'FamilyName' group, checking for existing user and group, and displaying relevant information for the user and group.

```bash
  GNU nano 6.2                                                         create_user_group.sh
#!/bin/bash

# Variables
USERNAME="yourName"
GROUPNAME="FamilyName"

# Check if the group exists, if not, create it
if getent group "$GROUPNAME" > /dev/null; then
    echo "Group '$GROUPNAME' already exists."
else
    echo "Creating group '$GROUPNAME'..."
    sudo groupadd "$GROUPNAME"
    if [ $? -eq 0 ]; then
        echo "Group '$GROUPNAME' created successfully."
    else
        echo "Failed to create group '$GROUPNAME'. Exiting."
        exit 1
    fi
fi

# Check if the user exists, if not, create it
if id "$USERNAME" > /dev/null 2>&1; then
    echo "User '$USERNAME' already exists."
else
    echo "Creating user '$USERNAME'..."
    sudo useradd -m -g "$GROUPNAME" "$USERNAME"
    if [ $? -eq 0 ]; then
        echo "User '$USERNAME' created successfully and added to group '$GROUPNAME'."
    else
        echo "Failed to create user '$USERNAME'. Exiting."
        exit 1
    fi
fi

# Display user and group information
echo "==== User Information ===="
id "$USERNAME"

echo "==== Group Information ===="
getent group "$GROUPNAME"

echo "Script execution completed successfully."
```

```
~
) chmod +x create_user_group.sh


~
) sudo ./create_user_group.sh
[sudo] password for aliaa:
Creating group 'FamilyName'...
Group 'FamilyName' created successfully.
Creating user 'yourName'...
User 'yourName' created successfully and added to group 'FamilyName'.
==== User Information ====
uid=1001(yourName) gid=1001(FamilyName) groups=1001(FamilyName)
==== Group Information ====
FamilyName:x:1001:
Script execution completed successfully.
```

Section 2 :

1. Create a supplementary (Secondary) group called pgroup
   with group ID of 30000.

```
~ took 3m35s
) sudo groupadd -g 30000 pgroup


~
) getent group pgroup
pgroup:x:30000:
```

2. Lock any user created account so he can't log in.

```
~
) sudo usermod -L bittercup

~
) sudo grep bittercup /etc/shadow
bittercup:!$y$j9T$7Jg3bi64iCcLYnOn3QvTh/$kpgVxE/QjHGzOpH.En9Z6zys5XIQ1.adBISXyyixJo3:20091:0:99999:7:::
```

3. Delete user account.

```
~
❯ sudo userdel bittercup

~
❯ sudo userdel -r bittercup
userdel: user 'bittercup' does not exist

~
❯ id bittercup
id: 'bittercup': no such user
```

4. Delete group account.

```
~
❯ sudo groupdel pgroup

~
❯ getent group pgroup

~
❯ ▯
```

5. State the difference between adduser and useradd with examples shown.

Both are used to add user account in linux

Features	adduser	useradd
purpose	Higher-level, user friendly	low-level
Home Directory	Automatically creates a home directory (`/home/username`).	Does **not** create a home directory unless `-m` is specified.
Password	Prompts interactively to set a password.	Set separately in another command
Configuration	Uses `/etc/adduser.conf`.	Uses `/etc/default/useradd`.
Ease of Use	Easier, interactive prompts.	More manual, requires options.

```
~
❯ sudo adduser bittercup
Adding user `bittercup' ...
Adding new group `bittercup' (1002) ...
Adding new user `bittercup' (1002) with group `bittercup' ...
Creating home directory `/home/bittercup' ...
Copying files from `/etc/skel' ...
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
Changing the user information for bittercup
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] y

~ took 54s
❯ 
```

```
~
❯ sudo useradd -m -s /bin/bash powerpuff

~
❯ sudo passwd powerpuff
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully

~ took 7s
```