Experiment 4:

Write a shell script to manage the User accounts with its credentials.

Program

```
#!/bin/bash

# Function to display menu options
show_menu() {
    echo "User Account Management Script"
    echo "1. Add a new user"
    echo "2. Delete an existing user"
    echo "3. List all users"
    echo "4. Change a user's password"
    echo "5. Exit"
}

# Function to add a new user
add_user() {
    read -p "Enter username for the new user: " username
    read -s -p "Enter password for the new user: " password
    echo

    if id "$username" &>/dev/null; then
        echo "Error: User '$username' already exists."
    else
        sudo useradd "$username"
        echo "$username:$password" | sudo chpasswd
        echo "User '$username' added successfully."
    fi
}

# Function to delete a user
delete_user() {
    read -p "Enter the username to delete: " username
    if id "$username" &>/dev/null; then
        sudo userdel "$username"
        echo "User '$username' deleted successfully."
    else
        echo "Error: User '$username' does not exist."
    fi
}

# Function to list all users
list_users() {
    echo "Listing all users:"
    cut -d: -f1 /etc/passwd
}
```

```
# Function to change a user's password
change_password() {
    read -p "Enter the username to change password: " username
    if id "$username" &>/dev/null; then
        read -s -p "Enter the new password: " password
        echo
        echo "$username:$password" | sudo chpasswd
        echo "Password for user '$username' changed successfully."
    else
        echo "Error: User '$username' does not exist."
    fi
}

# Main program loop
while true; do
    show_menu
    read -p "Choose an option: " option
    case $option in
        1) add_user ;;
        2) delete_user ;;
        3) list_users ;;
        4) change_password ;;
        5) echo "Exiting script."; exit 0 ;;
        *) echo "Invalid option. Please try again." ;;
    esac
done
```