Login Register Readme File

User Registration and Login System

TASKS

1.Allow users to register with a unique username and a password.
2. Store user credentials securely (initially, a simple dictionary can be used).
3. Prevent duplicate registrations for the same username.
4. Provide a login mechanism where users can log in using their registered username and password.
5. Validate login credentials and provide appropriate messages for success or failure.
6. Implement a loop to allow multiple registrations or logins until the user exits.

STEPS

1. Plan Data Storage

- Decide on a method to store user credentials (e.g., a dictionary where usernames are keys and passwords are values).

2. Create the Registration Feature

- Prompt the user to enter a username.
- Check if the username already exists in the data storage.
- If it exists, inform the user and ask for a different username.
- If it doesn't exist, proceed to the next step.
- Prompt the user to enter a password.
- Store the username and password in the data storage.
- Display a success message indicating the registration is complete.

3. Create the Login Feature

- Prompt the user to enter their username.
- Check if the username exists in the data storage.
- If it doesn't exist, inform the user that the username is not registered.
- If it exists, proceed to the next step.
- Prompt the user to enter their password.
- Validate the entered password against the stored password.
- If the password matches, display a success message.
- If the password doesn't match, inform the user and allow them to try again.

4. Design the User Menu

- Create a menu-driven interface with options for:
- Registering a new user.
- Logging in as an existing user.
- Exiting the program.

- Prompt the user to choose an option.
- Based on the user's choice, invoke the appropriate functionality (registration or login).
- Allow the program to run in a loop until the user explicitly chooses to exit.

5. Implement Input Validation

- Ensure that the username and password inputs are non-empty.
- Handle cases where the username contains invalid characters or is too long/short.
- Prevent users from entering spaces or special characters in the username if required.

6. Test the System

- Test registering multiple users to ensure no duplicate usernames are allowed.
- Test logging in with correct and incorrect credentials.
- Test edge cases, such as logging in with an unregistered username.
- Verify that the system exits gracefully when the exit option is selected.

```
d={}# Dictionary of users
#login Function
def Login():
    username=input("Enter Username ")
    if username in d:
        password=input("Enter Password ")
        if password==d[username]:
            print("--------------------Loggined Succefully \U0001F600")
        else:# password is not currect
            print('Password is incorrect Try Again')
            Login()
    else:#user is not available
        print("User doesn't Exist please Register")
        Register()

# Registration process
def Register():
    username=input("Enter Username: ")
    if (validate(username)):
        password=input("Enter Password:")
        d.update({username:password})
        print("-------------------------------Registration Succefull\U0001F600")

# Validating username
def validate(name):
    spchr=['!','@','#','$','%','^','&','*','(',')','-','~','+','//','\\']
    if len(name)==0:
        print('username should not be empty')
        Register()
    elif (len(name)>25):
        print('username not more than 25 chatercters')
        Register()
    elif any(c in spchr for c in name):
        print('username doesn\'t contain any special charecters')
        Register()
    elif name in d:
        print('Username is available enter other one')
        Register()
    else:
        return True
```

```
# here we are creating the menu for user with choice
# step 4th is implemented
def Menu(n):

   if n==1:
      Login()
   elif n==2:
      Register()
#

print()
print("**************Welcome To SBM Solutions ***************")
print()
print("Please Enter your Choice")
print("1.Login")
print("2.Register")
print("3.Exit")
n=int(input("Enter no: "))


while(n!=3):
   Menu(n)
   print("If you want to continue Please Enter your Choice if not press 3")
   if n!=3:
     print("1.Login")
     print("2.Resister")

   n=int(input("Enter no: "))
print("Thank you for Visiting \U0001F600")
```

Output:

Menu Display:

```
PS C:\Lavanya_Code\Python_Lectures_Assignments\Project_Login_Resister> python Login_Resister.py

**********Welcome To SBM Solutions **********

Please Enter your Choice
1.Login
2.Register
3.Exit
Enter no:
```

Existing Gracefully:

```
Enter no: 3
Thank you for Visiting 😀
```

Registration Test cases:

Test1: Empty Username given

```
Enter no: 2
Enter Username:
username should not be empty
Enter Username:
```

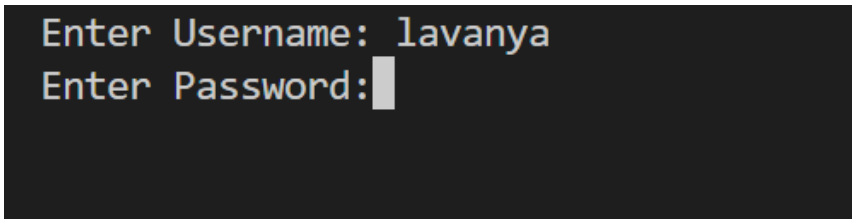
Test 2: Special Charecters in username

```
Enter Username: lavanya%la*
username doesn't contain any special charecters
Enter Username:
```

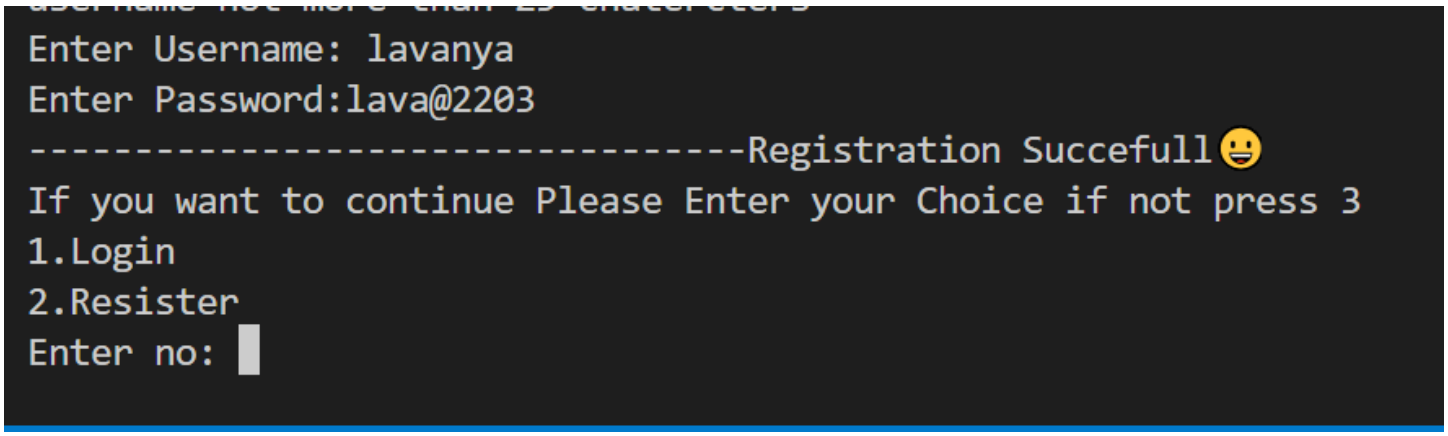
Test 3 : username is greater than 25 chars

```
Enter Username: 12345678901234567890123456
username not more than 25 chatercters
Enter Username:
```

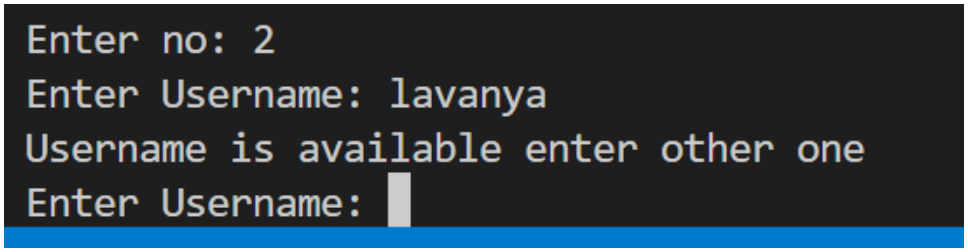
Test 4: username is currect



Test 5: Registration Successful



Test 6: Username already Exist



Login Test cases:

Test 1: username is not exist

```
Please Enter your Choice
1.Login
2.Register
3.Exit
Enter no: 1
Enter Username lavanya
User doesn't Exist please Register
Enter Username: lavanya
Enter Password:lava@2203
---------------------------------Registration Succefull😀
If you want to continue Please Enter your Choice if not press 3
1.Login
2.Resister
Enter no: 1
Enter Username lavanya
Enter Password lava@2203
--------------------Loggined Succefully 😀
If you want to continue Please Enter your Choice if not press 3
```

Test 2: password Doesn't match

```
1.Login
2.Resister
Enter no: 1
Enter Username lavanya
Enter Password lava@codnera
Password is incorrect Try Again
Enter Username
```

Test 3: Loggined succefully

```
Enter Username lavanya
Enter Password lava@2203
--------------------Loggined Succefully 😀
If you want to continue Please Enter your Choice if not press 3
```