Task-1 contains 3 stages:

Stage -1: Registration

Stage -2: Storing the user credentials in a file

Stage-3: Login

**Stage -1: Username and password requirements**

| **Sl No.** | **Requirement** | **Example** | |
| --- | --- | --- | --- |
| **User Name Requirements:** | | | |
|  | email/username should have "@" and followed by "." | sherlock@gmail.com  nothing@yahoo.in | |
|  | email/username should not be like  "." immediate next to "@" | @gmail.com  my@.in | |
|  | it should not start with special characters and numbers | 123#@gmail.com | |
| **Password Requirements:** | | | |
|  | Password length 5 < password length > 16 | NA | |
|  | Must have minimum  one special character,  one digit,  one uppercase,  one lowercase character | Qwert2# | |

**Stage -3: Username and password requirements**

| **Sl No.** | **Action** | | **Requirement** | |
| --- | --- | --- | --- | --- |
|  | Login:  Check whether his/her credentials exist in the file or not based on the user input. | | If user credentials doesn’t exist then ask them to go for Registration or forget password | |
|  | Forget password | If user name exists in the file | Retrieve their original password based on their username provided in the user input. | |
|  | If user name does not exists in the file | Ask user to user to create new password | |
|  | Creating the new password | Create new password for user only if their username matches with the data exists in the file else ask user to register | |

**Note: Task should be completed using only python alone.**