

Task 2 : Barebones Database Management System

You might have visited tonnes of websites in all these years. Almost every other website these days has a feature to give users a login and account creation option. Your next task is to create such an interface to do the following things:

1. A user opens up the interface and a welcome message is shown
2. A prompt is given: either create a new account or login to an existing account
3. Based on the choice, a new page is shown to the user.
4. Account creation:
 - a. Take name, phone number, email, sex, address, etc information from the user
 - b. Make sure that at least one of these attributes should uniquely identify each user (eg. email). You need to check this constraint in real time and prompt the user to use another email to create the account
 - c. To get the user's image, give them an option of setting their image as a default image (whose path is specified in your application) or to enter the path of their preferred image as the input.
 - d. Ask the user to set a password for their account and also confirm their password by asking them to enter the same password again. If the two match, the user's account is created.
 - e. Save this information for the user in a .csv file "users.csv".
 - f. Saving the password to the file : this has to be done in a secure way. Search what is hashing and how it can be done using a Python program. Once the user information has been taken, the password should be "hashed" and this hashed password only should be stored in the csv file. Do not store the password in plaintext to the csv file.
 - g. Save the users' images in a folder called "profile_pictures"
5. Account Login
 - a. The user is asked to enter the unique identifier (eg. email) and their password
 - b. If the password matches the user (figure out how you'll match it with the hashed password) in the csv file, the user is taken to a new page with all their information displayed in a pretty-printed format.
6. A user can search for other user's data by entering their name. This facility should be available only to logged in users, on the page displayed after login. Entering the name of a user should display a list of all users in the csv file having that name. Remember only to show their name, phone and address (not their passwords or even hashed passwords!).

By pages above, we mean to clear the command prompt console and show the new contents to the user. It doesn't ask you to create and display HTML pages, all the interaction has to be done using the command line interface.

Prescribed Time for Submission : 4-5 days