

## Instructions for Lab 3

The previous developer has created a simple "Hello, User Name" example. The previous code is [available here](#) ↓ .

We would like you to update the code to support the following:

1. Add a section in memory that stores user names & passwords (this should be done as part of your assembly code)
  1. u: panteater, p: peter
  2. u: qv, p: hellothere!
  3. u: <you choose a user name>, p: <you choose a password>
2. The passwords should be stored in an encrypted way (use Example 9.1 from the book as a basis)
3. Prompt the user for their user name
4. Compare that user name to the database
  1. if user name doesn't exist, tell the user it doesn't exist and prompt again
  2. if user name doesn't exist & user has tried 3 times, notify them & quit the program
  3. if user name does exist, prompt for password
    1. encrypt/decrypt password as necessary & check if it matches for the user
      1. if the password matches, give them the HELLO message & let them know they have logged in
      2. if the password is incorrect, prompt the user again (give them up to 3 tries)
5. You can add/polish the steps to make them more user friendly (optional)

The document should contain the following information:

1. Your Name & Date Completed
2. Features Improvements Section
  1. Final assembly code w/ comments (screenshot or pasted in)
  2. 3 screenshots showing the program working in the simulator
    - 1 screenshot should be of the location of the usernames & passwords (encrypted passwords)
    - 1 screenshot should be of a user logging in successfully
    - 1 screenshot should be of a user logging in unsuccessfully (either wrong user name, wrong password, or both)