

## Objective:

To manage a user list that can be modified and saved to a text file.

## Inputs:

- Input text file consisting of pairs of usernames and passwords, separated by a colon (:) without any spaces
- User choice: ('a'-add user account, 'm'-modify existing user account, 'r'- remove existing user account, 'g'-generate list of user accounts, 'q'-quit)

## Output:

- List of user accounts, error messages when appropriate
- Output text file consisting of pairs of username and passwords, separated by a colon (:) without any spaces

## Specification:

The program maintains a list of user accounts and passwords supplied by a system administrator.

Any inputted username should be stripped of any non-alphanumeric characters (special characters such as ! @ # \$ % ^ & \* ( ) \_ + ; : ' ") using: **username = re.sub(r'\W+', '', username)**. In order to use the re.sub command, you need to import the appropriate library with "import re" at the top of your code.

Any inputted password should be stripped of the apostrophe character ' using:

**password = password.replace('\'', '')**

Each option should be implemented as a separate function within a Package that will be imported, so that its functions can be called. Valid options will be stored in a list to test for invalid options:

**function = ['i', 'm', 'r', 'g', 'q']**

The usernames and passwords will be loaded from an input file and stored in a dictionary (Python's version of a hash). The dictionary will be passed as a parameter from the Python script file to the appropriate function in the module file and updated according to the function. The script file should import the functions from the module file to call the appropriate function.

Initially, the program prompts for an input text file to read from. If the file does not exist, it should be created. The program should then loop until the user chooses to quit (selects status as 'q'). If the user enters an illegal status, the program will prompt again for the status input. Upon quitting, the program prompts the user to save the list to an output file with the same name as the original input text file.

## What to turn in:

A single zipped file (**asmt2\_yourlastname.zip**) containing both source code files (the Python script called: **asmt2\_yourlastname.py**, and the Python module file called: **functs\_yourlastname.py**) submitted via Moodle (<http://moodle.csun.edu>) to the Lab section (not the lecture section). Any deviation from the format for submission will result in an automatic -10%.

## Sample Output:

```
% python asmt2_mcilhenny.py
```

```
Enter file to open: myfile.txt
```

```
User accounts
```

```
-----
```

```
a = Add user account
m = Modify existing user account
r = Remove existing user account
g = Generate list of user accounts
q = Quit
```

```
Enter choice: a
```

```
Enter username: einstein
```

```
Enter password: e=mc^2
```

```
User accounts
```

```
-----
```

```
a = Add user account
m = Modify existing user account
r = Remove existing user account
g = Generate list of user accounts
q = Quit
```

```
Enter choice: a
```

```
Enter username: newton
```

```
Enter password: f=ma
```

```
User accounts
```

```
-----
```

```
a = Add user account
m = Modify existing user account
r = Remove existing user account
g = Generate list of user accounts
q = Quit
```

```
Enter choice: a
```

```
Enter username: pythagoras
```

```
Enter password: a^2+b^2=c^2
```

```
User accounts
```

```
-----
```

```
a = Add user account
m = Modify existing user account
r = Remove existing user account
g = Generate list of user accounts
q = Quit
```

```
Enter choice: a
```

```
Enter username: einstein
```

```
Username already exists!
```

```
User accounts
```

```
-----
```

```
a = Add user account
m = Modify existing user account
r = Remove existing user account
g = Generate list of user accounts
q = Quit
```

```
Enter choice: m
```

```
Enter username to modify: fibonacci
```

```
Username does not exist!
```

User accounts

-----

a = Add user account  
m = Modify existing user account  
r = Remove existing user account  
g = Generate list of user accounts  
q = Quit

Enter choice: m

Enter username to edit: newton

Enter current password: f=m\*a

Incorrect password!

User accounts

-----

a = Add user account  
m = Modify existing user account  
r = Remove existing user account  
g = Generate list of user accounts  
q = Quit

Enter choice: m

Enter username to edit: newton

Enter current password: f=ma

Enter new password: force=mass\*accelaration

User accounts

-----

a = Add user account  
m = Modify existing user account  
r = Remove existing user account  
g = Generate list of user accounts  
q = Quit

Enter choice: r

Enter username to delete: pythagoras

User removed

User accounts

-----

a = Add user account  
m = Modify existing user account  
r = Remove existing user account  
g = Generate list of user accounts  
q = Quit

Enter choice: g

einstein:e=mc^2

newton:force=mass\*accelaration

User accounts

-----

a = Add user account  
m = Modify existing user account  
r = Remove existing user account  
g = Generate list of user accounts  
q = Quit

Enter choice: q

Save contents? (y/n): y

% more myfile.txt

einstein:e=mc^2

newton:force=mass\*acceleration