**SI 507**

**Final Project Proposal**

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1. **Project Goal**

Implement an application which will offer users the function to register themselves, login, store and share data with other users and draw the graph of the data.

1. **Tools**

Python, Flask, matplotlib, tkinter, SQLAlchemy

1. **Interface description**

1.Route 1: /welcome

This page will show the welcome interface and some guide for use

2.Route 2: /register

This page will show the register interface for new users, which require you set up username and password

3.Route 3: /login

This page will show the login interface which needs your username and password. After the login, the interface will alter you that you are login successfully or failed to login.

4.Route 4: /draw\_graph/<local\_path>/<file\_name>

This page will get the data from the local path and file name you offered and draw the graph.

5.Route 5: /draw\_graph/<database>/<id>

This page will get the data from the application’s database by id you enter.

6.Route 6: /save/ <local\_path>/<file\_name> This page will save the files you offered

7.Route 7: /save/ <local\_path>/<file\_name>

This page will save the files you offered to the application’s database

1. **Requirement**

I will meet at least following requirements mentioned in *SI 507 W19 Final Project Assignment.pdf*

1. Use of a module we did not use for an assignment or in-class exercise in the course of the SI 507 semester that does something new and allows YOU to learn and explore something new.
2. Use of a new module we did not use for an assignment or in-class exercise in the course of the SI 507 semester that does something new and allows YOU to learn and explore something new. (See above)
3. Object definitions using inheritance.
4. A many-to-many relationship in the database structure that is relied upon during interaction with the Flask application.
5. At least one form in the Flask application that allows a user to interact with the form and send data from one place to another AND/OR save new data in the database AND/OR show data processed in some way for a user to see.
6. Inclusion of JavaScript files in the application that affect a view in your Flask application in some way.
7. **Schedule**

**Milestone 1: 2019/4/10—2019/4/12**

1.Make sure all the functions I need to keep the main python file run.

Issue

2.Check the database relationship to make sure the relationship can respond the difference among the different data.

3.Confirm all the classes and the relationship between the different classes

**Milestone 2: 2019/4/13—4/15**

1.Learn knowledge and write some code to make sure the understand of matplotlib and tkinter.

2. Begin to design the user interface of the project

3.Begin to write the main python function.

**Milestone 3: 2019/4/16—2019/4/17**

1.Finish main part of the project

2.Parpare for the Check-in assignment

**Milestone 4: 2019/4/18—2019/4/24**

1: Finish all part of the project

2: Write the test file for the project

3: Submit the project

1. **Difficulties/Issues**

1.How to design the UI.

2.How to design the user register system.

3.In login interface, how to show user whether they login successfully or fails.

4.When users choose the file from local path, how to read data from the file.

5.How to draw the graph from the data.

6.How to save the data file to my database.

7.How to decorate my user interface.

8.What kind of test file this project need.