**DESIGN DOCUMENT**

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**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*CANNOT EXCEED 4 Pages: please edit as needed -Tina**

**The design document should include**

1. **a general overview of your system with a small user guide**Our program is written in python3 using the built in modules tkinter for gui and sqlite3. It is launched by running launcher.py with the database path as the parameter.

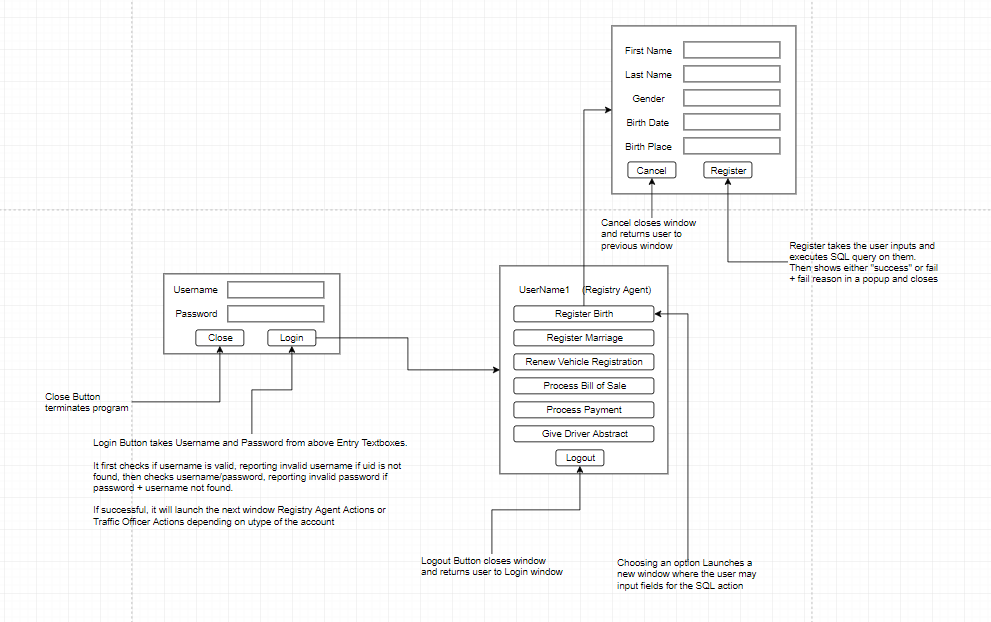
**User Guide:**

Figure - General Overview of system

1. **a detailed design of your software with a focus on the components required to deliver the major functions of your application**

Our software is divided into 3 types of classes:   
-Launcher: Main class which can be called in command line to start the program. Contains command line argument database. Launches the Login Window Class.  
-Independent Window Classes: GUI windows inheriting from tkinter. Each window is independent and self-sufficient from other windows. Windows may destroy themselves and launch other windows as necessary, passing through needed information. Each window contains GUI and methods to handle GUI actions.  
-SQL Controller: A class that imports sqlite3 module and has methods for all SQL queries used in the program. Passed between windows.

1. **your testing strategy**

To test the program, we will each test our own work for functionalities (Performs specifications properly) as well as QA (ensure that the program does not break from simple user mistakes). Then we will also perform the same test process on another group member’s work.

Functionality Tests will check all valid inputs for each specification, and ensure they produce a correct or reasonable output.  
  
QA Tests will check possible user errors such as typos, blank entries, incorrect types, and ensure these produce a reasonable error output and do not crash the program.

**(d) your group work break-down strategy**

**Group Meetings:**

**Meeting1 10/16 (1h)**

**-Discuss possible strategies for program design**

**Meeting2: 10/25 (2h)**

**-Confirm program design**

**-Divide remaining work**

**-Specify planned progress/deadlines**

**Meeting3: 10/30 (1h)**

**-Review testing strategy**

**-Divide testing work**

**Software Development- Includes Design, Development, and self-QA time**

**Marshal:**

**-Overall Design and Structure (2h)**

**-Login, Launcher (0.5h)**

**-SQLController (0.5h)**

**-Register a Birth (1h)**

**-Process a payment (0.5h)**

**Jian Xian:**

**-Register a Marriage**

**-Renew a Vehicle Registration**

**-Get a Driver Abstract**

**Tina:**

**-Create Test Database**

**-Process a Bill of Sale**

**-Issue a Ticket**

**-Find a Car Owner**

**Quality Assurance/Testing- Testing the work of other group members**