Group work strategy:

1. Our project is divided into three parts, and every group member had contributed evenly and fairly.
   Yating Zhao is responsible for the Task_1(Question 1, 2, 3)
   Haochen Gou is responsible for the Task_1(Question 4, 5, 6)
   Peilin Li is responsible for the Task_2 (Question 1, 2) and Project Report.

2. Time and progress.
   Peillin Li has spent about 8 hours towards his own work
   Haochen Gou has spent one and a half days towards his own works
   Yating Zhao has spent one day towards her work.
   All group members finish their work and test them using a specific database.

3.Method of coordination:
   First of all, the group members had finished their own personal work without any outside help, then we met at a certain time and merged our own works into the completed project and started to write the section of (Log-in screen, Log-out, and password function). Finally, we submitted the Mini group project on time.

Testing strategy:

1. We used the data from assignment 2 provided by Yancheng Ou. In order to fit our requirements and specific conditions, we add two new tables (payments and users) into the data structure. At the same time, we also insert some new data into the original one.
2. The process of testing is quite simple, we insert the appropriate data in the database. Then running the different separate sections to see whether the functions proceed and return the data correctly.

Detailed design and introduction:

Task_1:

1. In the first step, the users will be asked to give the information to get the new birth's parents. If the system can not find any of the parents, the users need to input the relevant information about their parents(The first name and last name are must need to provided). Then users will provide the information on the newborn. The system will insert the information into the database. This system will handle some specific conditions such as inputting mistakes, the same registration number and so on.
2. Section 2 is about registering the birth. Its approach is similar to section 1. The users need to input the full name of the partners. The system will link to Sqlite3 to find the information about two persons. If any of these two persons are not founded. The users need to insert some value as the information about that individual into the database. The information users inserted are not must required except the first name and the last name.
3. Section 3 is about renewing the registration. the users will provide the existing registration number. The system will link to the database to check its expiry date. If this registration is expired, then the system should use the date function to update the registration date to the next year of the new expiry date. Else it will add one year to the current expiry date.
4. Section 4 is about processing the bill, it likes some part in section 3, users need to give the car VIN and plate number and the names related to this bill. If the name is not the same as the name founded in the database, the program will raise the exception. When the name has been matched, the bill will be processed, it will give the unique registration number and update the relevant data.
5. Section 5 is about paying the tickets. The user will provide the ticket number to see the fine amount about this ticket. This system uses the if statement to check the sum of the payment and check the valid ticket number. Finally, it will link to Sqlite3 to insert the new data.

6. Section 6 is about checking the information about the tickets. This section uses two same structures and thinkings to print the tickets information within the lifetime and within 2 years. The program will prompt users whether they want to see the detail about the ticket. The system will reveal 5 tickets. It and also provide a function to see all tickets ordered by desc.

Task_2:

1. This section is about issuing the ticket. At the start of this program, Users are asked to provide the registration number. After inputting the number, the program tries to link to Sqlite3 to get the information users wanted. Then, users will be asked to provide the date, fine and violation text. If users do not provide the eligible date and input the string “null”, the program will set the current date to the date of the issuing ticket. The ticket information will be inserted into the database. Every ticket will be provided with a unique ticket number, and the program will check the database to ensure its unique.
2. This section is about giving the ticket. Users will need to provide the make, model, color, year and the plate to find the possible information. The user can still give the “null” if they do not know the specific information. Then the program starts to link tp Sqlite3 to list all results that match the given information of the car. When the number of results is equal to or more than 4, it will only provide the basic information to let users select ones. After the users select one, it will provide all information about this car including the owner’s names, register date, and expiry date. When the number of results is less than 4, it will also provide all the information about these cars.