Summary/Analysis

For assignment 1, we use the following techniques: For the frontend, we choose **HTML, CSS, JavaScript, jQuery, and Bootstrap**; and for the backend, we choose **Python, Flask, Requests, Ajax**; we choose **SQLite** as our database tool; we use **CircleCI** for CI/CN; and we also use **Heroku** to achieve our deployment. We will briefly talk about our considerations toward choosing frontend, backend and CI/CN programming technologies below.

Frontend technologies:

We decide to use **HTML and CSS** as our main techniques to build our frontend because both of us are more familiar with the techniques which make us easier to develop during the process. We also select **JavaScript with jQuery** library because it can fix browser problems such as CSS layout issues. Since our functionalities can be implemented with plain JavaScript with decent code clarity, we did not use Node.js or React.js.

We choose the **Bootstrap** framework to help us design our website because it is more flexible and easier to work with. It covers HTML and CSS-based design templates, and also JavaScript tools for creating and building web pages and web applications. Since we decided to use HTML and CSS, the bootstrap framework would absolutely be the best choice for us.

Backend technologies:

According to our coding experience, **Python** would be the best choice to build the backend environment not only because of its popularity among programmers, but also due to its powerful libraries that have lots of pre-written code. Therefore, we do not need to create some code from the beginning, which speeds up the development time.

To communicate between the Client and Server, i.e, to connect HTTP requests with JQuery **AJAX**, we use Python **Flask** and **Ajax** to get JSON responses from Ajax requests, which can be easily tested with Python **Requests**.

CI/CN:

In this assignment, we use **CircleCI** as our CI/CD tool. It automates installation and delivery procedures. CircleCI has a cloud-based server whose plans are robust, scalable, and promote a faster deployment of applications.