○ My approach to the problem

My approach to the problem of this Full stack Developer Selection Test was to make a simple web application where anyone can submit the information how ducks are being fed in parks around the world. Also, I have to think about the time constraint for this project. In order to prototype this project, I have chosen technologies where I am more familiar with which are python3, django, and react.

○ Technologies chosen (and why)

For this project, I have chosen following technologies:

- Python 3
    - I have used python 3 as my main language for this project, because it is one of the widely used languages and it has a friendly community. Another reason is, I have more experience using python when making web applications.
- Django
    - Since web applications need a web framework, I have chosen django as my web framework. Django is simple and widely used by community. Also, I have more experience using Django for web application development.
- React
    - React is one of the widely used frontend framework around the world. Also, it has a big community and many resources for web application development. It is simple, fast and responsive. Because of this I have used React as my frontend framework.
- Django Rest Framework
    - Since I am using django as my backend framework and react as my frontend framework. I needed to connect both frontend and backend. To achieve this, I have decided to use django rest framework where I can use api to connect both backend and frontend.

○ Roughly how many hours you spent

- I have used roughly 10 hours for this project and following are break down of the each section I have worked on:
    - Setting up the Environment
        - Backend & Frontend
            - Roughly used 30 minutes to initiate the both Python and React environment.
    - Make models for the database and connect it with django-rest-framework
        - Roughly used 1.5hour
    - Make Backend API.
        - Roughly used 1.5 hour to make the api to achieve get, post, update, and delete functions.
    - Inserting design (ant design) into frontend.

        - Roughly used 0.5 hour to have the layout of the web application.
    - Use API I have developed and use it on Frontend and dynamically display items.
        - Roughly used 1.5 hour to make it work.
            - This took sometime because I had to debug some of the issues I had.
    - Create new data information in frontend, update and delete stored data.
        - Roughly used 1 hour.
    - Create separate link for creating new duck report
        - Roughly used 0.5 hour.
    - Update database to store more information that is needed for requirements.
        - Roughly used 0.5 hour.
    - Debugging
        - 1 hour.
    - Add Report summary section
        - Used 1 hour to have a report summary section of the web application. However, I have not fully finished this feature because I was not able to aggregate data and show the summary of each section such as park location, date, and time.
    - Code cleanup
        - Used 0.5 hour.

○ Conclusion

- I have enjoyed building this web application because I had a chance to choose the technologies and design the web application from the start to the end. If I were to continue this project further, I would get more feedback on how to improve it more and make it more user friendly. Also, I would like to fix the report summary section and have a login function for this application.