Executive Project Summary

1 Development

The Doorgy aims to remedy the hassle of continuous human interaction with a pet door. In a traditional pet door, the lock must be manually removed from the door in order for the pet to go in and out of the house. This can lead to security issues as a person may need to leave the house for hours and leave the lock off the door potentially allowing other animals or creatures to come inside the house.

Our group knew that along with the means to automate the door, scheduling the door to lock and unlock would also need to be a key factor in our development. We wanted to make a pet door that is user friendly and intuitive, to this end the Doorgy comes with an app that users can use to connect the pet door to their smart phone, and from said app, program in a schedule that will direct the pet door to open at specific times. The Doorgy was designed to fit and easily be installed into an existing space used for a pet door.

Throughout the design and development of the project there were certain parts that connected with others, such as the Web API and App, that had to be revised to make certain that the communication between the parts was as accurate reliable as possible. Other points that were revised were the enclosure and the headless service. The headless service was split into two parts to separate door operation and server connectivity.

2 Teamwork

Initially our team draft out a plan for the blocks required for the project, it was then assigned randomly to team members. Once the blocks are defined, we then started on defining the protocols and requirements for each blocks to integrate together. When then entire project was defined, each members were sent to do the blocks that have been assigned. Our team meet regularly throughout the week, usually twice a week, to keep tap on progress. Unfortunately, most of the team members were unable to produce anything to be evaluated which results in most of the blocks in non-working condition or does not meet the requirements previously defined.

3 Project Takeaways

- Communication - This should come as no surprise as communication always has something that can be improved on. For our group specifically, we had many members who spoke English as a second language and a team member located on the other side of the globe, roughly 11 hours ahead. This led to fractured communication and showed the importance of continuous communication between team members.

- Time management - Managing a schedule can be difficult and from the experience gained in this project it seems time management was a field that was underutilized. Many of our team and individual assignments were turned in close to the deadlines and with better planning a higher quality product could have been produced with fewer stressors.

- Team management - Our team has been operating without a clear leader which makes the team coordinations difficult and there was no management which results in time management issues with most of the members. Our team has a member that has a clear picture on how to complete the project, if our team have a leader that gives out specific tasks it could have prevented the integration issues and non-functioning block issues.
Figure 1: Project Timeline