

PROJECT TITLE: SmartLife

Bi-weekly Report 1

Team Members:

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Qinwen Yang

Summary

This week we are working separately with different parts. All team members contributed to their parts. For the computer science part, we are facing a challenge using a fragment as the start screen, which is normally not allowed in Android Studio. We implemented it in a different way so that it could work properly. However, we still encountered some problems. For example, the fragment is not available to switch. This problem was solved but still needs further development. A simple calendar could be implemented. But we are not satisfied with its UI. We are looking for a better way to complete the calendar part. Backend tables are working properly. The user table and alarm table are mostly completed. In the future, some slight adjustments may be needed. During the frontend working on the calendar, the backend will also need to complete the calendar. For the Data Science part, I have done some researches about the convolution neural network(CNN) which I try to deeply understand it, since CNN gonna use for future image recognition, but I am still facing some issues understanding some part, since there involved lots of deep mathematical knowledge, but I will try my best and do more research in the future. In addition, I have created a neural network model by loading the RGB images from CIFAR10 dataset, but I am getting an error for one of the functions I created, and I will try to figure out and solve it.

Individual Contributions

Team Member	Contribution
Xin Wang	Perfect backend and CICD
Wentao Pei	Fixed fragment bugs, made a simple calendar
Dengyun Ma	Simple UI design, local data save, VolleyController, MySingleton

Qinwen Yang	Do some research about convolutional neural networks, try to understand more deeply. Use the Pytorch package in python to create a convolution neural network model.
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Pending Issues

- Fragment switching problems still exist, we need further improvement;
- UI design is simple;
- There are conflicts between online data and local data;
- Haven't overcome some background mathematical problems that can understand CNN deeply
- A network model created with some coding issues

Plans for the Upcoming Week

- More types of alarm implementation;
- Fragment switching problem fixed;
- Image save implementation(both frontend and backend);
- Calendar function implementation(the last major function of the app);
- VolleyController Completed and Start to create WebSocketController;
- More backend tables implementation;
- More research and understanding more deeply about CNN.
- Practicing and coding more using pytorch package, and fix the error I am facing.
- mockito test