

Bi-Weekly Report 2

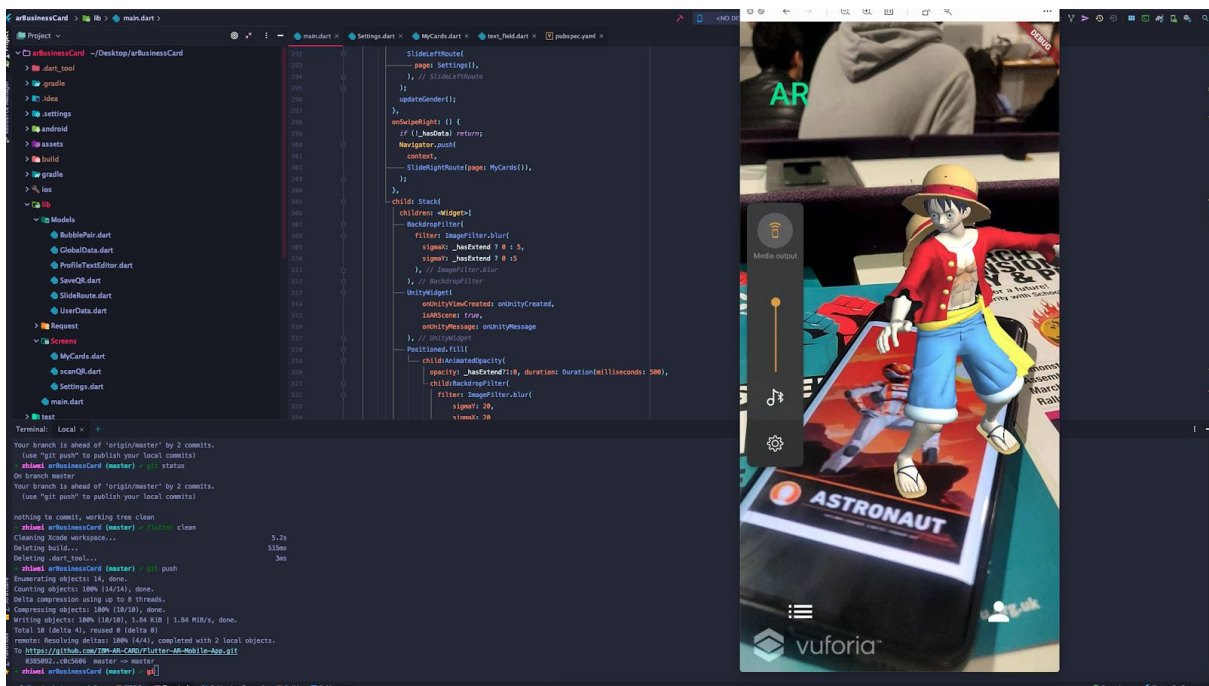
IBM AR Business Card

25 November - 6 December 2019

What we have done during the two weeks

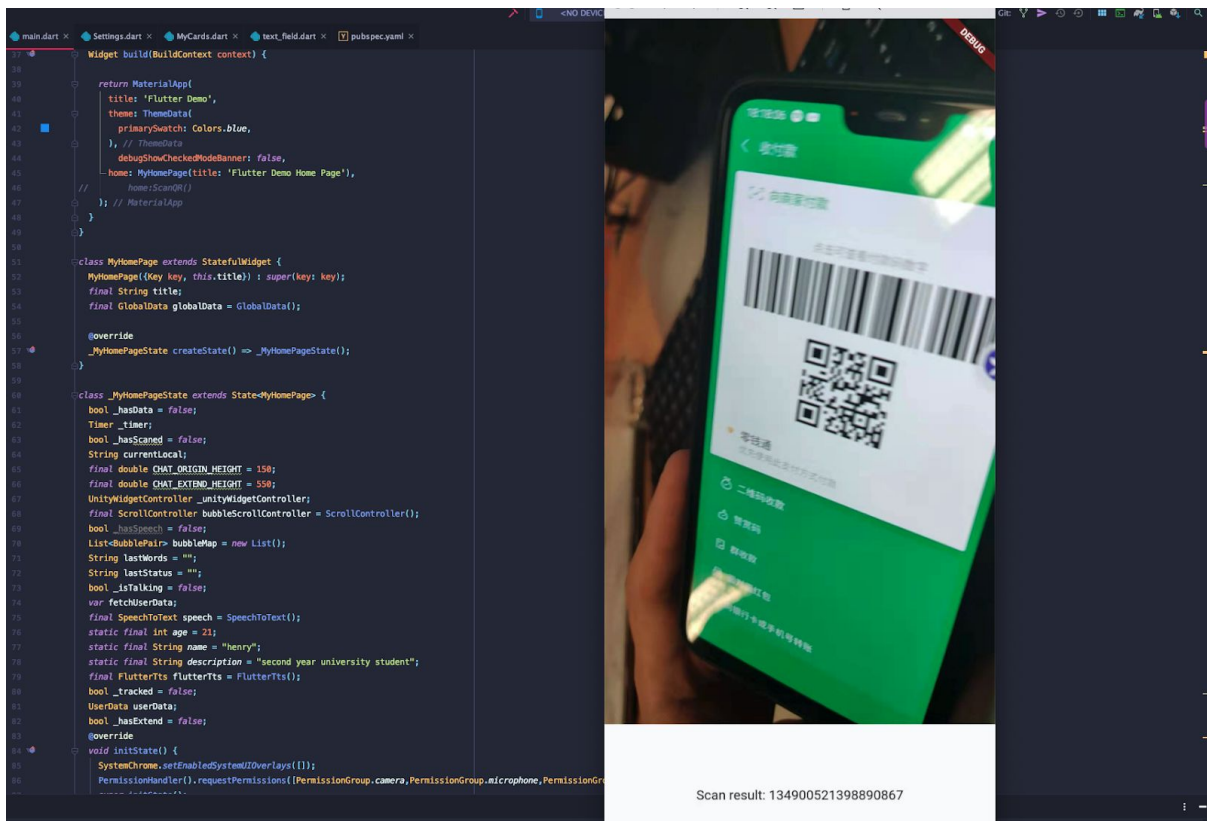
During the last two week, we have successfully integrated the flutter front-end and the unity AR app, which means we can see the avatar within the main flutter UI.

For the frontend UI, we have successfully built the voice recognition, and QR code scanning function in the flutter app, which can also send and receive inter-process messages between flutter and unity. the animation when switching between the History list and the favourite list has already been optimized and improved.



For the unity app, we have made a few characters using Adobe Fuse and mixamo, and we are able to add simple humanoid animations to the character. And can export these with working tracking functionalities to the flutter app.

We have discussed and now decided on what technologies should we use for our server backend, which includes Koa framework for Node.js, and MongoDB for our database and profile store.



QR Code scanning function

Estimation of whether the project is running on time

For the first two weeks, we have already finished the mobile application UI design. Also, we have finished to setup flutter main screens and figure out how to integrate unity with flutter.

For now, we have integrated the front-end and the unity AR app and improved mobile application performance.

We have updated our tasks on the Trello board. It shows what we should do in certain time intervals clearly. We are running well on time.

Problems that need to be resolved before the next report

We first need to fix the voice recognition function, which is a core function of our app, as sometimes it crashes without a reason.

In addition to this, the flutter interface will crash when phone rotates, and unity widget will also crash when it running in the background. These are two high priority bug to fix as well.

Plans for the next two weeks (and the winter holiday)

For the upcoming weeks, we will focus on prototype 1 deliverables.

We will keep working on our projects, and in the meantime start our individual report and set up the report website.

For the backend, we will start building the server using Koa and node.js and design our MongoDB database structure.

Report Summary

What we have done during the two weeks

- integrated the front-end and the unity AR app, which means we can see the Avatar when scanning QR code
- the animation of switching between the History list and the favourite list has already been optimized and improved
- Decided how to build server backend using NodeJS and how to create a suitable SQL database

Problems that need to be resolved before the next report

- Voice recognition function crashes frequently
- Flutter interface will crash when phone rotate
- Unity widget will crash when it running in the background

Plans for the next two weeks

- Setup report website
- Individual reports for Prototype 1
- Set up Koa server
- Set up databases