Bi-Weekly Report 5

AR Portal for GOSH DRIVE

Team 36

Author	**Author Email**
Yin Long Ho	*yin.ho.17@ucl.ac.uk*
Chirag Hegde	*chirag.hegde.16@ucl.ac.uk*
Haonan Zhang	*helen.zhang.17@ucl.ac.uk*

COMP0016 System Engineering

December 14th, 2018

Department of Computer Science
University College London

Overview:

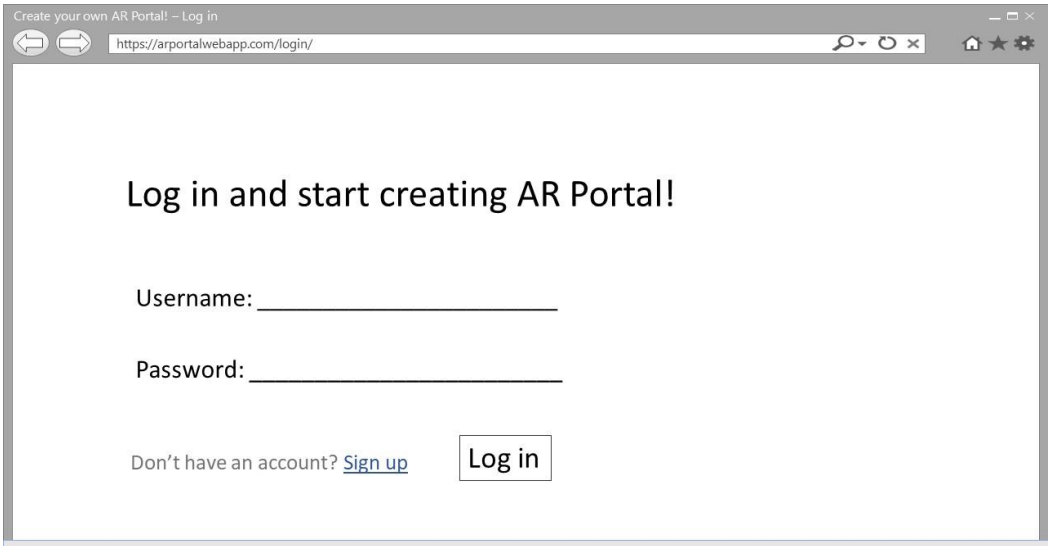
We have started hosting the website which can be found at http://students.cs.ucl.ac.uk/2018/group36/index.html. At the moment, the hosted site is just a template but it will be continuously updated after this.

An initial prototype of the mobile application was created. Users can now walk into a virtual room through an AR portal. We planned to further build out the application based on the prototype. Also, we discussed and finalised the solution for distributing room configuration files.

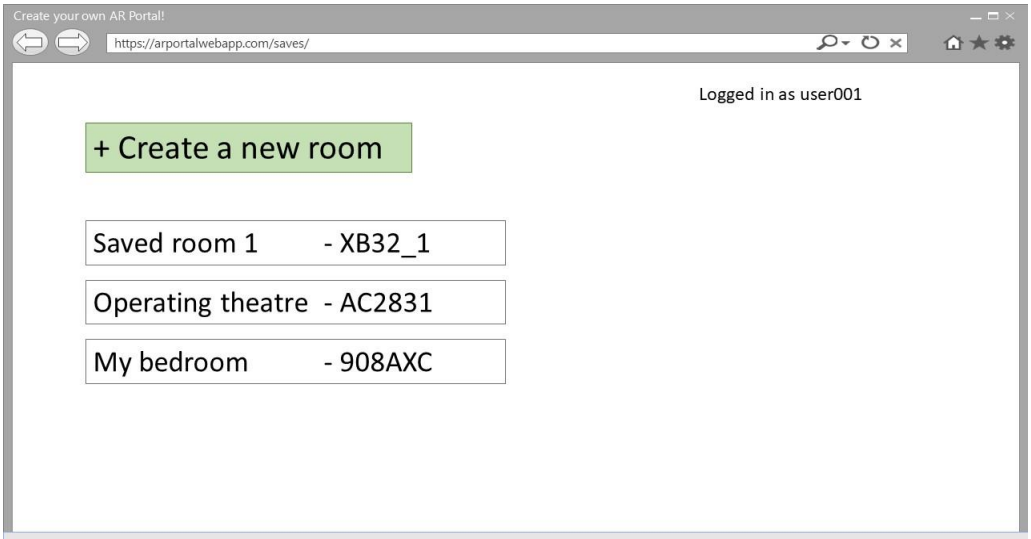
We also met our client again to report our progress and go over the app's detail.

Tasks Completed:

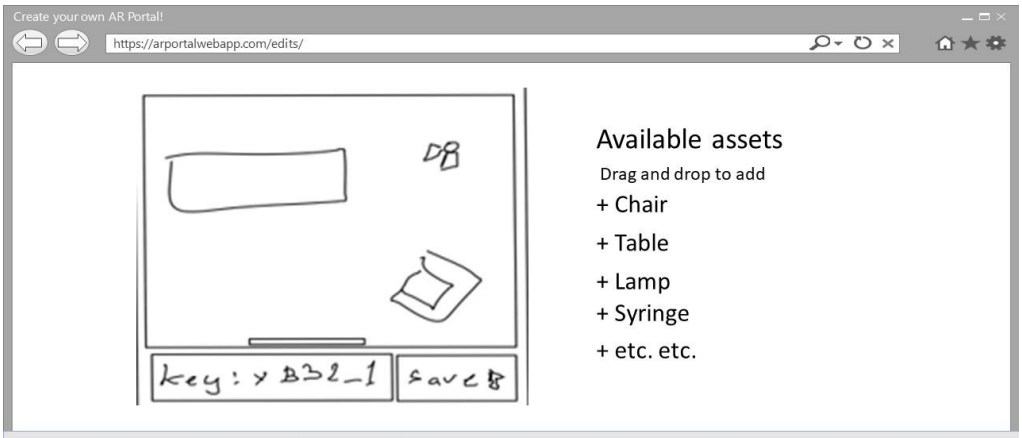
- Uploaded website template
- Created an initial prototype of the mobile application
- Arranged a meeting with the client to discuss possible solutions
- Finalised the method of delivering room configuration files (Explained in the storyboard below)



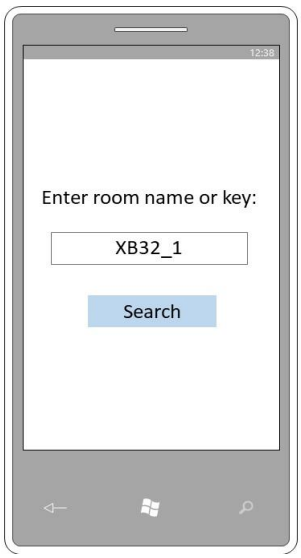
A creator logs into the online web portal



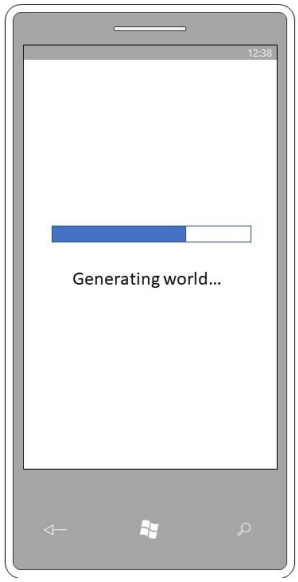
The creator can edit an existing room layout or create a new one



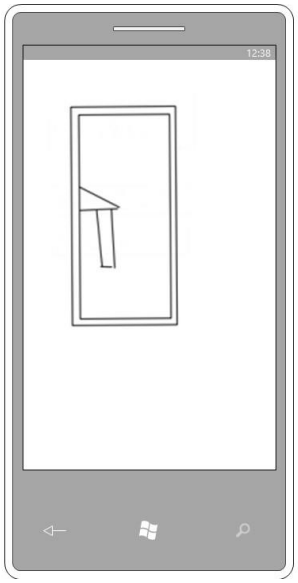
The user can add/move/remove objects to the room. The room config file is stored in an online database. And a reference key for the room is automatically generated.



The user searches for the room by the name or reference key



The app downloads the config file from the server and then generates the room



AR section starts
The user can walk into the room and explore

Planned tasks:

- Write a parser to parse files containing room configurations, file format should be json
- Research possibility of importing user provided 3D model assets at runtime
- Write a web app for creating the room configuration file
- Set up a server for storing and distributing the room configuration files
- Add objects to the room based on the given configuration
- Add options to interact with objects (e.g. pick up and rotate an object, play 3D video demonstrating its usage, etc.)

Client Meeting:

13/12/18 - Video meeting with Nadia to discuss our progress, and how to best go about the web application which users will be using to customise rooms.

Personal Reports

Yin Long Ho

I created an initial app prototype that can generate an AR portal and room. I have been researching how to parse a json/txt file using Unity and how to generate objects based on the file's configuration. I discussed with my teammates about the way of distributing the room configuration files. Also, I looked into a similar application from IKEA to observe and learn its design.

Chirag Hegde

I explored one of the two options for designing the AR environment. Using a mask based material, I textured the outside faces of an object to generate the requisite invisibility effect. I also collaborated with my teammates to finalise content delivery and then drew up the storyboard used above to demonstrate the process by which the save files are created and distributed to the application.

Haonan Zhang

I've been in charge of the team project's website which is hosted on the aforementioned link. The site so far is just a template but I've planned out the content so it will be updated soon with any considerate progress updates, all our reports so far, screenshots of our application in the near future and sketches of our storyboard.