Team Gravity

Members
Brian Briscoe
Jasper Hou
Mateusz Pietraszewski

Project Preferences
1. NCT Management System
2. Surgery Appointment Management System
3. Hotel Booking System

Approach
Our preferred project is the NCT management system. Our approach would be a 2 part system consisting of a desktop application and an accompanying Android application sharing a single database. We would start off by creating low fidelity prototypes for each individual page of the desktop application and each individual page on the Android application. This would involve drawing out the pages on pieces of paper. These would act as a basis for the design of the system.

After this we would create medium fidelity prototypes for each page. These would be basic equivalents of the final finished product. We were thinking of creating each page but without any emphasis whatsoever on design and include only the essential elements for our desired functionality.

Finally we would create high fidelity prototypes for each page. These would include all of the desired functionality with more emphasis on design then the previous prototypes but with a simulated back end rather than connection to the actual database.

For the shared database we would either use a Raspberry Pi as a web server or alternatively an Okeanos cloud virtual machine with a web server running on it. This would be running constantly allow instant, secure access to the database from the desktop or Android application.

Design
The desktop application would be used by the administrator to access the details of all bookings and to read test results. It would include a full list of all car and booking details for any given day. It would be contained in a simple, intuitive interface. The mechanic could also use the desktop application to view all cars booked for testing on the given day and select “Pass” or “Fail” options listed beside each testing criteria for that car. When you log in to the desktop application you will be displayed a different set of information dependent on whether you are a mechanic or the administrator.

The desktop application could be used by the mechanic to enter test results for the car, however it is not convenient for the mechanic to walk from the car to computer and back to the car each time he has to enter a result for each testing criteria. Our plan is to have an acccompanying Android application that would contain simple “Pass” or “Fail” options listed beside each criteria. The application would allow the mechanic to select a car from a list of cars available for testing on the given day from the shared database and upon selection, would be shown the criteria needed to perform the appropriate checks on the car. When he is finished, the data is added to the shared database and can be viewed on the desktop application.