Final Year Project Initial Plan
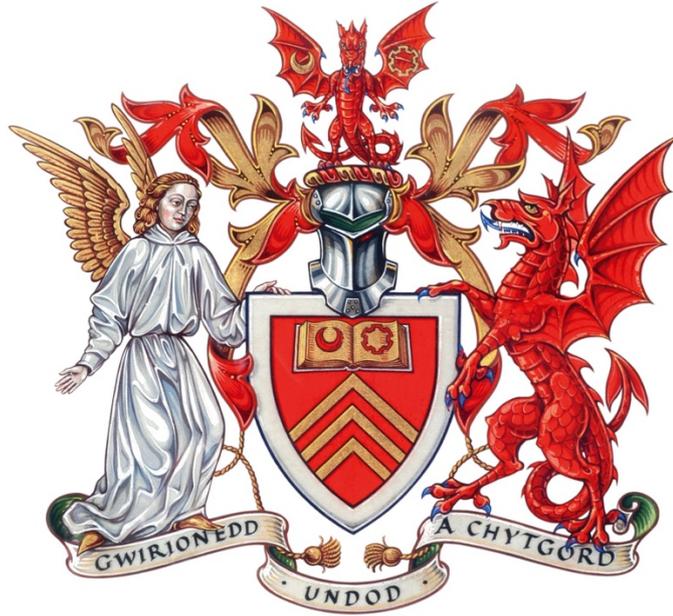
Cardiff University School of Computer Science

Title of Initial Plan:	**"Pocket Waiter"**
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Module Code:	**CM3203**
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Number of Credits:	**40 credits**

Project Description

Applications nowadays are becoming more and more part of peoples lives. There are more than two million applications out there, that have been designed to help peoples lives and also make them addicted to technology. My project will be a mobile application about helping customers to order faster and managers to organise better their company in order, the efficiency of the bar/restaurant, to be improved. With this application the customers will have to select the bar or restaurant they visited, select their table number and the menu will appear and they will be able to order. Have you ever thought instead of waiting for the waiter to come and explain the menu to you, to have an application on your mobile device and with a touch of a button to order? My main target is to develop a well organised iOS application which will communicate – exchange data, like the menu or the customer's order, with a server and it will output the order to the bar or restaurant, kitchen via screen or if I have time with the aid of a small self made raspberry pi printer.

Project Aims & Objectives

The main target of the application is to try and help both sides, customers and manager, to move things around faster. Time is money, and nowadays people don't have the same amount of time they used to have in the past. Everyone has been to a bar or a restaurant and because of the large amount of people waiting to be served, the service is very bad and slow. On the other side the manager sometimes has been panicked and because he doesn't want unsatisfied people, he has hired more waiters than cooks or barmen with the same result result, people to be unsatisfied of the service provided. My main Target is to solve the problem on both sides.

From the customer's side, I have assumed that everyone nowadays has a "smart phone". They only have to download the application, which will be free, and via just selecting their table number, they can proceed with their order. After the application has "locate" the table, a menu with sub menus will appear and people will just have to select ("add to the basket") the drinks or foods they want. It will also may have a "make a note" box, in order to add or remove some things they don't like. For example, the main recipe of mojito is with sugar, lime, rum and mint leaves. If the customer is allergic to mint leaves, he can just add to basket the mojito and leave a note (I don't want mint leaves). Another thing I want to add to this application is the customer to be able after ordering to pay via his credit card or PayPal account but I don't know if I have the time to add this feature. The only drawback about paying via the app, is that maybe in the end, waiters to become quite useless and some people to loose their jobs.

On the other side the manager can make things move faster. This application will provide "freedom" to waiters that they used stuck to a table and repeating again and again the menu of the restaurant to the customers. The manager can place these people to positions like preparing the drinks or the food and in this way the productivity and quality of the restaurant will be increased. Also he will be able to manage better the situations with large amount of costumers, because the "kitchen team" now it will be much bigger than the "order team". The order will be displayed to the "kitchen team" with a screen or with another device so as to prepare the order. The application will exchange data with a server and according to client (costumers) requests and it will provide them with the right results as long as it will send the order to the "Kitchen".

Application Objectives (Primary)
- User select restaurant, his table, and order from menu
- Add to basket items and add a note
- A server will communicate with the application and show the menu
- Output the order into readable version to screen

Application Objectives (Secondary)
- Instead of selecting the table to scan a QR code on the table
- Output the order to a paper instead of a screen
- Print to user the summary bill of his order

Risks + Problems

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Problem 1: application creation
I haven't made again an application. Thankfully I think that there are enough recourses on the world wide web where they can help me with the development of the application.

Problem 2: how to make it work
Even if I make the application interface I have to make it work. I have to make it communicate with he server, the server to respond to client requests and provide customers with the right results.

Problem 3: output
Another problem I will face and have to overcome is how the order will be send to the kitchen in order to be prepared and how it will be displayed.

Equipment Requirement

All IOS applications require an apple machine so I sorted that thing out but I have to create an apple account to be able to develop an application. I also need an iPhone for the presentation as long as a screen for the output, maybe an iPad.

Signature of Student:

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Work Plan

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Week 1 (25/01 - 31/01):
- Meet with supervisor
- Learn swift code

Week 2 (01/02 - 07/02):
- Draft example of the application - hand drawn
- Meet with supervisor
- Read about server connection
- ask for Apple Account
- Start developing the application
- Start writing the final report

Week 3 (08/02 - 14/02):
- Meet with supervisor
- More formal version of application interface – use Photoshop
- Detail all the functions of the application
- Continue developing the application
- Continue the writing of the final report

Week 4 (15/02 - 21/02):
- Meet with supervisor
- Comment any problems
- Continue developing the application
- Continue the writing of the final report

Week 5 (22/02 - 28/02):
- Meet with supervisor
- Continue developing the application
- Continue the writing of the final report

Week 6 (29/02 - 06/03):
- Meet with supervisor
- Continue developing the application
- Continue the writing of the final report

Week 7 (07/03 - 13/03):
- Meet with supervisor
- Continue developing the application
- Continue the writing of the final report

Week 8 (14/03 - 20/03):
- Meet with supervisor
- Continue developing the application
- Continue the writing of the final report

Week 9 (21/03 - 27/02):
- Easter Break

Week 10 (28/03 - 03/04):
- Easter Break

Week 11 (04/04 - 10/04):
- Easter Break

Week 12 (11/04 - 17/04):
- Meet with supervisor (Very important Meeting)
- Continue developing the application
- Continue the writing of the final report
- Connect server with the application
- Hand in a Small example of work + app small demonstration
- Test app

Week 13 (18/04 - 24/04):
- Explain in which parts app fails and give the reason
- Hand in a draft final report (almost finished)
- Small app presentation to supervisor
- Create Power Point for Presentation

Week 14 (25/04 - 01/05):
- Print out Final report
- Give someone to read
- Correct Final Report
- Original App Test (final)

Week 15 (02/05 - 06/02):
- Print dissertation
- Format of submission
- Hand in dissertation

Final Year Project Gantt chart

	January 2016		February 2016			March 2016			April 2016		May 2016

Final Year Project Gantt Chart

▼ Final Year Project

- Learn Swift Code
- Draft Interface Design
- Server + Application research
- Application Development
- Formal Interface Design
- Final report Writing
- Connect App with the server
- Easter Break
- Test Application
- Small Presentation
- create restaurant menu
- Output the order