University of the West of England
BRISTOL

MODULAR PROGRAMME

COURSEWORK ASSESSMENT SPECIFICATION

Module Details

Module Code: **UFCF7H-15-3**	**Run** **18Sep_2**	**Module Title** **MOBILE APPLICATIONS**
Module Leader: **Sean Butler**	**Module Coordinator**	**Module Tutors** **Scott Mellors**
Component and Element Number **B 1**		**Weighting: 50%** **(% of the Module's assessment)**
Element Description Assignment with supporting documentation		**Total Assignment time** 60 hours

Dates

Date Issued to Students 13/12/2018	**Date to be Returned to Students** 28th March 2019
Submission Place **Blackboard & Coursework Hub** (Level 1 A Block Underpass)	**Submission Date** 28th February 2019
	Submission Time **1.59 pm**
Deliverables ♦ To be handed in via Blackboard ○ PDF doc with screen captures of each activity/screen of the application in action with a description of how it operates. ♦ To be handed in via the Coursework Hub: ○ USB Memory stick containing all required project files for recreating the executable and a working executable (APK or similar) file suitable for running on dev environments in the lab and downloading onto mobile devices.	
Module Leader Signature: Sean Butler	**Date:** 6th Dec 2018

UFCF7H-15-3 Mobile Applications
Assignment Brief

Companies House Graph Explorer

The Assignment

Building on the techniques you have learned so far in the module, you must build an application that allows the user to browse data retrieved from the Companies House API, showing it in a node style network diagram.

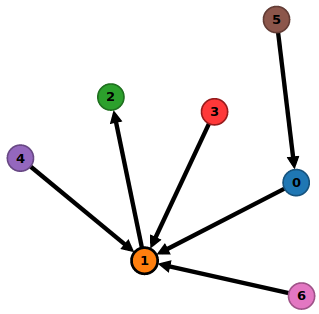

Fig1: This is an example of a simple node diagram and layout.

Where each node represents a company or director and the arcs represent relationships such as directorships or share ownership. This can then be shared to various sources such as locally, instant messenger or social media. Use your knowledge of similar modern mobile applications to implement the best most visually appealing and pleasing to interact with version of the app you can.

Feature List

The following features are guidance for your implementation and the subsequent marking. Marks are allocated for implementing each feature, in every case additional marks are available for the quality of the features.

The features are divided into two groups, Minimal and Challenging . You should implement every feature from the Minimal Features table and at your discretion implement as many features from the challenging table as you can.

The range of marks for each feature is listed on the right. The maximum marks you can achieve overall is 100.

Minimal Features

These features are more straight forward, they represent a minimal app, you must implement them all.

Description	Possible Marks	
	Min	Max
The user can retrieve information about companies and directorships via the API from the Companies House website.	10	10
The user can **visualize** the data as (node-arc) graphs or similar 2d image. Extra marks are available for titles, labels, layout etc.	5	10
The Data is visualized as an **animated** node graph, allowing users to interact with a node and explore further detail. Additional marks are available for the feel of the animation.	5	10
The user can share the image generated by the data collected from the API. Additional marks available for tweaking, editing or adding to the post before sharing.	5	10
Documentation as described. Additional marks are available if you include a play/app store entry mockup.	5	10

Challenging Features

These features are more challenging to implement and represent features of a better app. You may implement if you choose.

Description	Possible Marks	
	Min	Max
The user interface should use platform specific UI standards for navigation, visuals and interaction.	5	10
The user can explore the history of selections they have made. E.g. as a pulldown or integrated with the diagram navigation somehow.	5	10
Additional Graphic Visuals: e.g. Different Shaped Sized or Colored Arcs and Nodes communicate additional information you can find via the API.	5	10
Additional Textual information: e.g. secondary info about the companies and directories as retrieved from the companies' house database as pop outs or tooltips or similar.	5	10
Cross referenced Retrieval: e.g. Information retrieved is also looked up in additional databases such as postcode, mapping (Google) or personal (full contact)	5	15
Graph Size: The graph shows more than one level of relationships, that is companies owned by directors of the selected company, and so on like a family tree.	5	15
Graph Layout Schemes: if the graph is multilevel or there are possible crossed arcs the nodes are rearranged automatically to reduce the crossings to a minimum.	10	15

Online APIs

https://developer.companieshouse.gov.uk/api/docs/

https://data.gov.uk/publisher/companies-house

https://www.fullcontact.com/contact-us/