Interactive Web Applications

Module Title:	Interactive Web Applications
Assignment Type:	Assignment
Project Title:	Newsroom Feed Sharing Application
Assignment Compiler:	Dr. Kyle Goslin (kyle@cct.ie)
Weighting:	25%
Due Date:	12th December 2017 (Moodle Submission)

Introduction

A company has contacted you and asked you to develop a system which will allow editors in a news room keep track of different world events as they occur. As each member of staff has a Facebook account, they have asked that the login system which is used for the system should integrate with the available Facebook API.

Each of the members of staff use a different type of mobile phone so they have suggested to use the Framework 7 mobile application interface. This will allow all the staff to have a similar look and feel when using the application, regardless of the device that they are using.

The company also has their own inhouse database that is used to store information about news stories that are currently breaking. However, they do not allow direct access to their database and all transactions must take place through a PHP web endpoint for the database.

System Specification (20%)

After the user has logged into the system, the following functionality should be available.

- When the application loads, the name of the person from the Facebook API should be displayed greeting them to the application.

- Business news, Sports News and Financial News – Each of these should be gathered from a like **JSON news feed** (outlined in Assets). All of the data that is collected should be parsed to extract content, leaving only the date/time and brief description of the news story. Raw JSON should not be printed to the user.

- Whenever any JSON service is queried, all the data should be stored locally inside of an array which will later be used to present the data to the user. This

reduces the number of requests which are made on the services.

- The application should never to a hard redirect to any other page in the application, as this would cause a loss of local variable data storage.

- A database is available in the newsroom database, this contains information about stories that are currently being worked on and their author of the story. As the company does not want to provide direct access to the database, they have instead provided a **PHP page hosted on an internal server** that will access the database. They have outlined that if the "type" of GET request is changed, different information will be returned.

- A facility should exist on the system to allow news stories to be entered by the users. This information should then be sent back to the central database. Again, like reading data from the database, all data that needs to be stored in the database should be done by calling the PHP page and setting the **type** of query to be a "newstory".

- Framework 7 should be used for the application. Inside the **examples** folder of the framework, a layout titled "tab-bar/index.html" should be used for the interface.

- **No PHP code** is required for this assignment, all the work must be done in JavaScript/HTML/CSS.

- As the users are required to log into the system using Facebook, the ID of the user which is returned after the user has logged in via the **response** object should be used as the ID to identify the user during all interactions with the database.

Distinction Grade Additional Work (5%)

If you are looking to get a distinction for this assignment, for all of the information that has been gathered from the news feeds and from the central client server, create a custom JSON output.

This output should be a translation from the plain text that has been gathered from the original content and then wrapped up in **your own custom** JSON format. This output should be displayed on a separate tab in your application in JSON format.

Assets

- Facebook Login Example – Available on Moodle

- Framework 7 – Can be downloaded from Moodle.
- JSON News Feeds - https://newsapi.org
- A link to the db.php endpoint page used to access the server database will be provided on Moodle.

PHP Database Connector Details

When interacting with the server **db.php page**, the data that is returned to you is dependent on the type of query which is sent to the service. Below is an outline of the different attributes that are available and the methods that exist.

Request Type	Description	Type	Page Name
GET	Inserting a new story into the database. **data** is the URL encoded data you want to send **id** is the facebook ID of the current user	Newstory & data=your_data_here&id=	db.php
GET	Get the top 10 stories from the database. Returned in JSON format	top10stories	db.php
GET	Gets a list of authors who made the recent stories in JSON format.	currentauthors	db.php

Notes

- This is an **individual assignment**. If two assignments are the same both will be marked zero.
- Late submissions will have 5% of the grade taken for each day late.
- All submissions must be made through Moodle. E-mailed assignments will not be graded.