Cloud Computing Project Report

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Course BSHCE

Application Irish Tide Times

This document outlines an overview of the requirements for completing the documentation of the Cloud Computing module on the BSHC degree at the National College of Ireland. The following sections are for guidance purposes and should be used to give you an understanding of the requirements, i.e. you may add to this document. The document is currently using Cambria (Body), font size 12, justified and 1.5 line spacing, which should all be consistent in the final document. The document should describe your project completely using the format below and be a maximum of 3,000 words (excluding code snippets and references).

Introduction

Introduce your project and the rationale for taking on the particular project, in particular discuss the reasons behind selecting the data sources that you selected.

The aim of the project is to provide an SMS service for retrieving times of high and low tides at specific locations around the country. The service could be used by both professionals and hobbyists who need this information but may not have ready access to mobile internet due to geographic location or weather conditions (anglers, boaters, surfers etc.).

A user sends an SMS to a given Irish phone number with their location code, and the times for first low, first high, second low and second high tides are sent in a reply SMS to the user. If an erroneous location is given, the reply instead gives a list of possible location codes.

Twilio (https://www.twilio.com/) is used to provide the phone number and to handle incoming SMS. Twilio was chosen for several reasons. First, the documentation available for Twilio is second to none. Clear example of how to implement the API are given for a variety of different programming languages and frameworks. Twilio also proved to have excellent customer service and were helpfully able to supply a "beta" Irish telephone number which could handle SMS (this was important as it would be unfeasible if users had to sent an SMS to a UK number, incurring a cost). Another reason Twilio was used was that it did not prove to be cost-prohibitive, with both receiving and sending SMS

costing a fraction of a cent. A Twilio account also provides useful records of each SMS sent and received, as well as affording flexibility in how incoming SMS are handled (eg. limiting the number of SMS per day and so on).

The second data source used was the tides page from The Irish Times at http://www.irishtimes.com/weather/tides. Due to anecdotal evidence this appears to be the canonical source used by anglers. Having reference these tides myself for many years I know them to be accurate. Secondly, using a well-established and reliable website such as the Irish Times' ensures small chance of the information being unavailable on a given day. The tide information is also presented in plain HTML which proved to be relatively straightforward to parse.

Technical Overview

This section of the document should describe the data sources in-depth and should be completed to demonstrate how you have used the sources within in your application including sample code snippets.

User Interface Design

Most of the projects should be using Twitter Bootstrap, which should be described in this sub section. You should include some snapshots of your application.

Data Source 1 You are required to go into detail, including code snippets of how you have integrated the data source into your application. All references should be provided identifying all suitable sources used for the development of the project.

Data Source 2 You are required to go into detail, including code snippets of how you have integrated the data source into your application. All references1 should be provided identifying all suitable sources used for the development of the project.

Deployment strategy This section requires you to discuss the deployment strategy that you have implemented for your project. Discuss both platforms that you have deployed your application onto including a detailed process demonstrating your understanding of the process.

Platform One This sub section should describe the first platform that you have deployed your application onto, including a link to show that you application is still running at the time of the demonstration. If, for some reason that your application will not be running at the time of the presentation you can record you accessing the application through a browser where the location is clearly seen.

Platform Two This sub section should describe the first platform that you have deployed your application onto, including a link to show that you application

is still running at the time of the demonstration. If, for some reason that your application will not be running at the time of the presentation you can record you accessing the application through a browser where the location is clearly seen.