TEAM 45 – COMP103P Applied Software Development

FOOD DIARY WEB APPLICATION

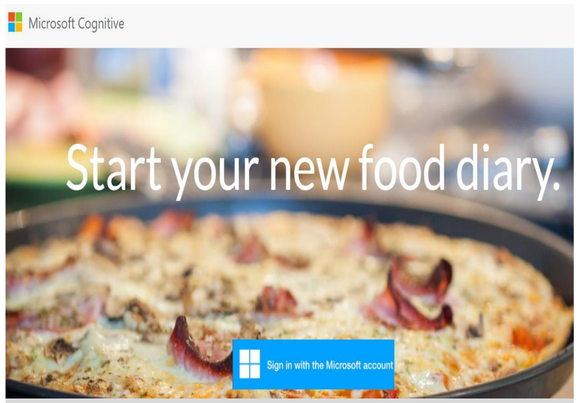
ABSTRACT

A web-based food diary that makes use of Microsoft Cognitive API services and cloud storage retrieval.

The main feature of the application consists of the automatic analysis of a user submitted image pair. The image pair consists of: 1) A photograph of food that the user has just eaten. 2) A photograph of the user's own face after having eaten the food in the first photo.

Internal application calls to Microsoft artificial intelligence API's then analyse the photo pair and provide automatic identification of the food and the user's feelings. The application then generates a diary entry consisting of the food picture, the description of the food identified and stars rating decided upon the user's emotional satisfaction.

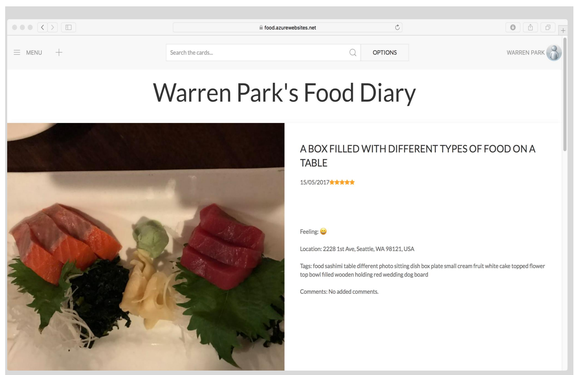
Additional features of the application include a food suggestion feature based on the user's set location and what the user enjoys eating (deduced from the star rating system) by making calls to Yelp's API .



Login Page of the Food Diary App

KEY FEATURES

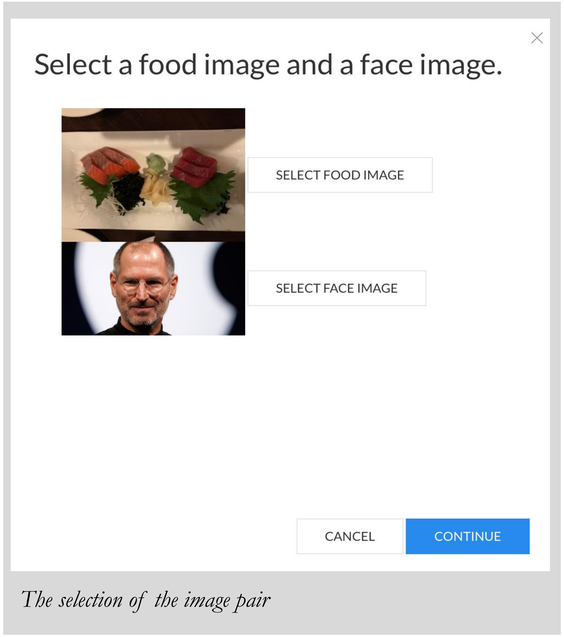
1. Automatic generation of diary entry using without need for manual input
2. Personalised restaurant suggestions supported by Yelp API based on existing diary entries or specified location
3. Feelings trend graph built on past emotions in old entries



Example of an automatically generated diary entry

KEY REQUIREMENTS

1. Template application making use of Microsoft Cognitive Services
2. Web app using Node.js
3. Support retrieval of images from the following cloud storage providers:



The selection of the image pair

TECHNOLOGIES USED

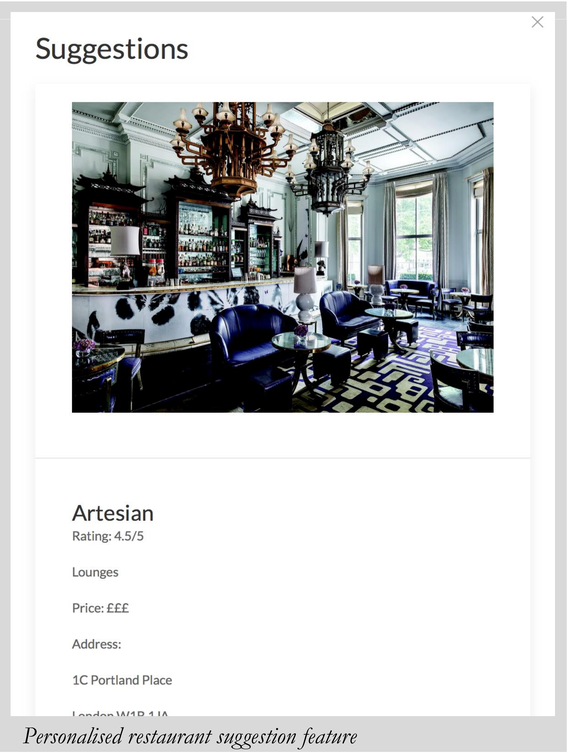
FRONT-END
HTML, CSS and JavaScript were used in the client side of the application.

BACK-END
On the server side, Node.js is the key platform used alongside MySQL and Azure Storage for data indexing and storage.

EXTERNAL APIs
Various external APIs were used to enrich the functionalities of the web app. This includes Microsoft Cognitive Services, Yelp, Google Maps and the different cloud storage providers.

POTENTIAL FOR FUTURE APPLICATION EXTENSIONS

The framework developed in this Food Diary App project can be used for many other types of application extensions. There are many situations where users can keep a diary of photographs from their personal life and have the app provide an easy diary recording mechanism and a source of personal data analysis. Exercise, studying, dating, and a myriad of other possibilities open up to regular automated logging and analysis with the technology developed in this student project. There is also the possibility of integrating our framework with social media platforms.



Personalised restaurant suggestion feature

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