RPR Booking Web Application

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ABSTRACT SUMMARY

The project proposal aims at providing customers with a seamless web based application to book a table in restaurants, we will explain the available solutions already in the market and how we plan to integrate APIs such as Google Maps and TripAdvisor, and our goal is to make a user-friendly web solution for customers and restaurants alike. [Our solution] will give restaurants more visibility and exposure **//featured restaurants (Pay?) Needs to be worked on//**

PROJECT SELECTION JUSTIFICATION

Our project was created by the gap we experienced within the market for a solution that could provide customers with a simple and straight forward way of booking a table, a survey was created to get a reaction from customers and restaurant to solidify our implementation process.

Using the knowledge our members acquired while pursuing our degrees at College of Computing Technology (CCT) we will try to integrate a broad number of technologies learned over the last five semesters.

DEFINIITON

Booking table or Booking time
Throughout the document we will be using the term "Booking", and for a better understanding of the project it is important to set a common interpretation of the term.

Therefore, when we use the term "Booking", we are referring to any method where the customer is requesting a reservation through the application.
After sending a reservation request with the number of persons and desired time, this same request will be in charge of the restaurant to ‘confirm’, ‘reschedule’ or ‘deny’.

When rescheduling the booking, the Restaurant will send an alert to the client to review their booking according to the availability.

When the restaurant is unable to fulfil the request made by the customer a denial of service message will be send to the customer, including the reasoning.

TECHNOLOGIES

This application will use integrations with Google Maps API, Facebook and Trip Advisor which this system *"application"* has been developed in the following languages Html5, PHP, SQL, JavaScript and CSS.

//More details about technologies//

Google Maps API

Google Maps is a web mapping service developed by Google. It offers satellite imagery, street maps, 360° panoramic, views of street (Street View), real-time traffic conditions (Google Traffic and route planning for travelling by foot, car, bicycle, or public transportation.

On this application we will be using the geolocation, route to our destination and pointers to restaurant locations, which are by default already provided by Google.

> Google Maps ***Geolocation***
> The Google Maps Geolocation API returns a location and accuracy radius based on information about cell towers and WIFI nodes that the mobile client can detect. This document describes the protocol used to send this data to the server and to return a response to the client.
> Communication is done over HTTPS using POST. Both request and response are formatted as JSON, and the content type of both is application/JSON.

Throughout the development this function was used as a base, which was already offered by Google. following:

```
if (navigator.geolocation) {
          navigator.geolocation.getCurrentPosition(function(position) {
            var pos = {
              lat: position.coords.latitude,
              lng: position.coords.longitude
            };

            infoWindow.setPosition(pos);
            infoWindow.setContent('Location found.');
            map.setCenter(pos);
          }, function() {
            handleLocationError(true, infoWindow, map.getCenter());
          });
        } else {
          // Browser doesn't support Geolocation
          handleLocationError(false, infoWindow, map.getCenter());
        }
      }

      function handleLocationError(browserHasGeolocation, infoWindow, pos) {
        infoWindow.setPosition(pos);
        infoWindow.setContent(browserHasGeolocation ?
                              'Error: The Geolocation service failed.' :
                              'Error: Your browser doesn\'t support geolocation.');
      }
```

Based on this, it was necessary to adjust our system with our latitudes and longitudes according to main location (Ireland). We will be detailing further along the project.

PROBLEM AREA

The idea of the project came from the possibility of the integration of services already available. Basically, this means the client need not have different applications to perform this type of service which are overloading the physical memory on their devices, such as mobile phones, laptop computers. Providing a web based solution means that there is no need for the customer to download an app to start using our platform.

** Survey results will go here ** 17/01/2017

PROBLEM SOLUTION

Based on the problem described in the Problem Area Section, **as well as on the results of our survey**, we have come up with an integrated solution that will help customers to seamlessly book a table in a restaurant without the need downloadable apps.

RPR Booking is an integrated web application, where customers will only need to have access to internet, registration is optional and by providing customers with the opportunity to login using their Facebook or Google accounts means that for most users there is no need for registering a new account.

The solution proposed, is based on a system that could be divided into 2 parts.

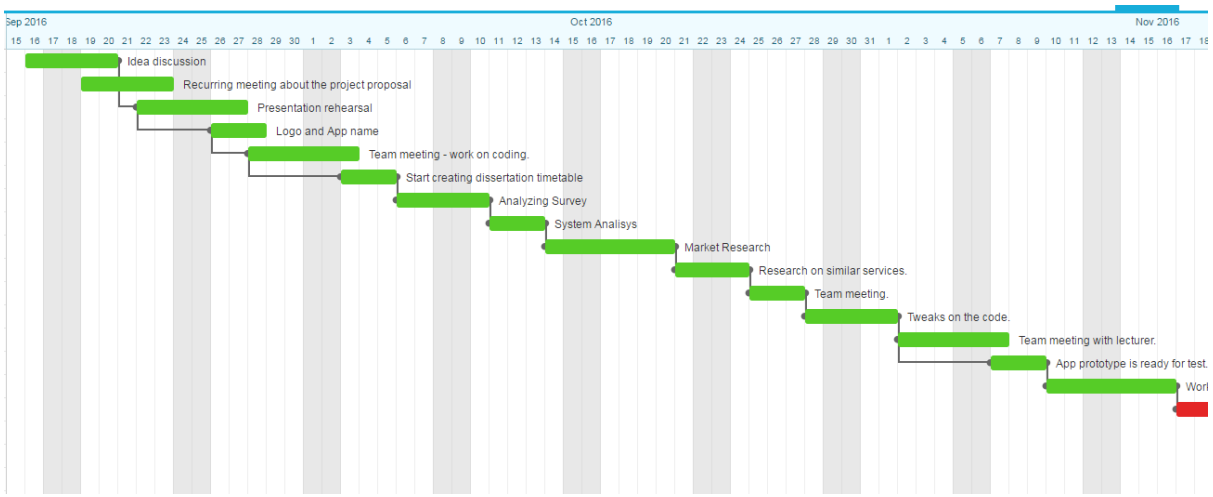
Business side

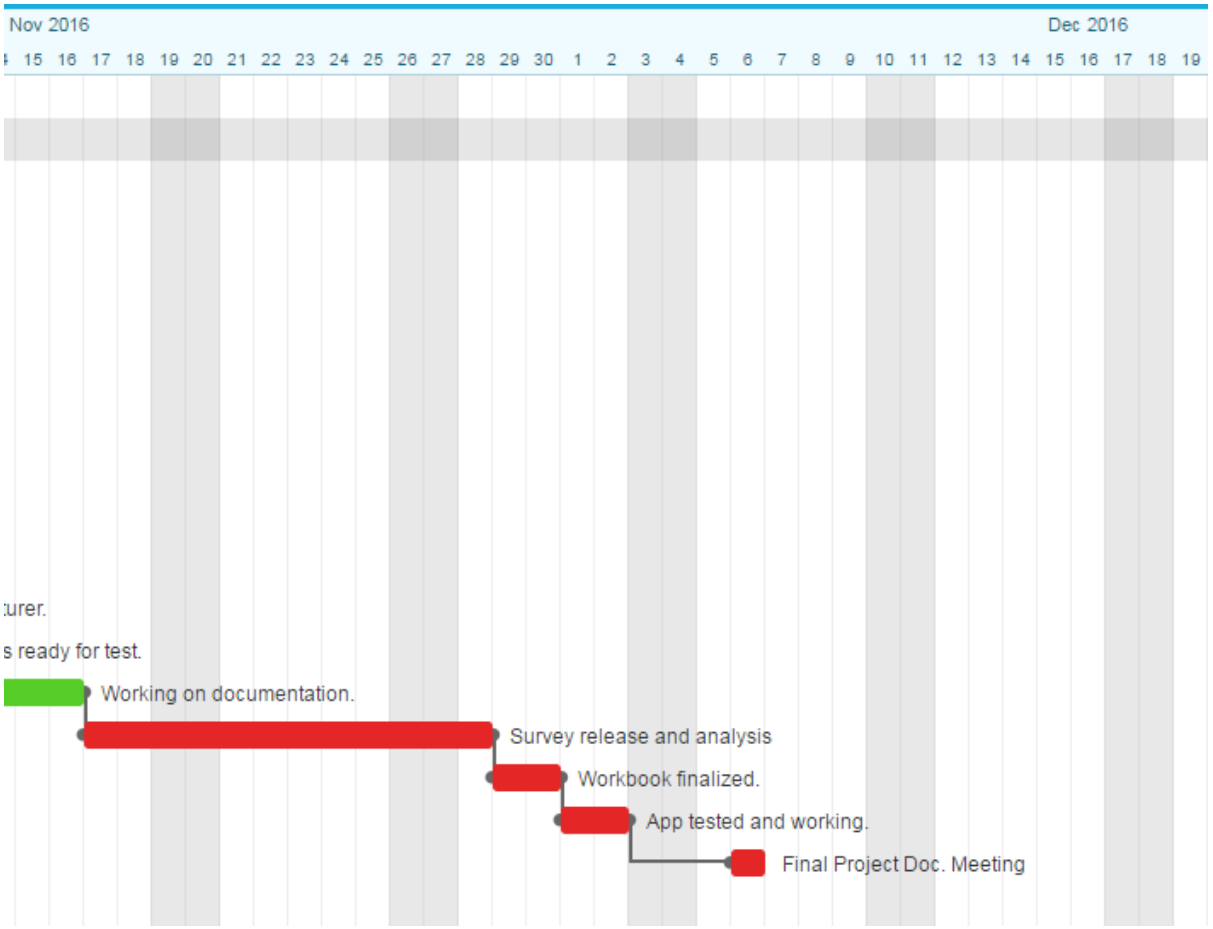
When companies sign up for the "Booking" website service and set their parameters. They will have access to the client's past bookings with them and also will be able to improve the reservation service, being possible to schedule, reschedule or cancel the requests through the application. With this they could avoid long queues and the need to deny service to customers when they arrive at the restaurant and cannot be accommodated.

Customer side

When customers start using the service , they can favourite the restaurants that they have more interest in visiting, that will be done again using the Google API which provides the opportunity for customers to ‘star’ their favourite business.

Project Timetable





Tweaks on the code.	Nov 1
Team meeting - work on coding.	Oct 3
Presentation rehearsal	Sep 27
Recurring meeting about the project proposal	Sep 23
Final Project Doc. Meeting	Dec 6 KG
App tested and working.	Dec 2
Workbook finalized.	Jan 10, 2017
Survey release and analysis	Nov 28
Working on documentation.	Nov 16
App prototype is ready for test.	Nov 9
Team meeting with lecturer.	Nov 7
Team meeting.	Oct 27
Research on similar services.	Oct 24
Market Research	Oct 20
Analyzing Survey	Oct 10
System Analisys	Oct 13
Start creating dissertation timetable	Oct 5
Idea discussion [8] REFERENCES RESEARCH	Tuesday
Logo and App name, PROJECT DOC.	Tuesday