ABSTRACT SUMMARY  
The project proposal aims at integrating customer service via the web application. In this document we will explain the different integrations used today, which facilitate the interactivity of this service. We will be describing the current functions and services used for this service. The solution will be the integration of web service via online portability based on an application.

PROJECT SELECTION JUSTIFICATION  
This project was created by the actual search activity of the service provided today, but also by the knowledge and qualifications of the team members, having easy access to the questions or answers needed in the development.

Based on these three year of courses and learned about many different languages and subjects. We're going to put into practice this knowledge and provide with our proposal.

The main reason for this choice was the routine of some of the members working with restaurants and customer service, in addition to the integration of existing technologies with made the choice of the developed language.

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 time, this same request will be in charge of the restaurant's to "approve", "reschedule" or "void". When rescheduling the booking by the Restaurant will be sent an alert to the client to review their booking according to the available schedule. In case of cancellation through the Restaurant the client will only receive a notice that it will not be possible to make their booking.

As a privilege of the service provided by the application the user can have only one "booking" registered into your account, in case of choosing another service / restaurant this same should cancel the previous request to make a new reservation.  
  
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.

**Google Maps API**  
Google Maps is a desktop web mapping service developed by Google. I 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, search (destination) and marker's functions (Restaurants).  
  
 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.

**Trip Advisor API Integration**

We are using this integration as a form of customer information and visualization already infomed by Trip Advisor.. When you enter the point on the map, you will obtain the qualifications already acquired. This will tell you how many stars and only a brief view of the comments of the restaurant gets. Our System will not have the availability to include or change any functions given by this integration, it will only work with visualization system.  
  
Here we have some Common Elements and API Endpoints used for it.

http[s]://**{subdomain}**.ean.com/ean-services/rs/hotel/v3/**{request name}**?&**{request element 1}&{request element 2}&...**

A fixed set of endpoints, each defined by an ean.com subdomain, is used for all protocols.

Common request elements are used to provide authentication details, desired currencies and locales, and to provide customer session and usage details for each API service.

***TripAdvisor*** *Integration Requirements & Guidelines*  **Part 1 – Coverage Requirements**  
You must show TripAdvisor’s Licensed Content (as set out below) on at least 80% of the overall properties listed on your site.   
**Part 2 - TripAdvisor Brand Guidelines**

**DISPLAY OF LICENSED CONTENT ON DESKTOP AND MOBILE**

**I. All displays of Licensed Content on Licensee Site will be subject to approval by EAN before launch.**

**II. Spelling of “TripAdvisor”**

Licensee must spell “TripAdvisor” correctly in all cases (i.e. as a single word with no space between ‘Trip’ and ‘Advisor’, with a capital ‘T’ and a capital ‘A’).

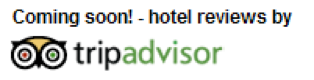
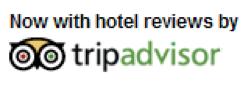
**III. TripAdvisor logo on Licensee Site home page**

Within one month of the Effective Date and for the duration of the Agreement, Licensee will include on the Partner Site homepage a TripAdvisor logo with an introductory sentence, e.g. “<Logo TripAdvisor> reviews – coming soon!”. The logo must be placed above the fold.   
Licensee shall use the below logo. Licensee will not store and locally serve TripAdvisor logos.



*Example mock-ups:*

Before the Launch Date:                                          After the Launch Date:

**IV. TripAdvisor logo on Licensee Site property pages**

All displays of Licensed Content on Licensee Site property pages must be accompanied by a TripAdvisor logo. The logo must be positioned as close as possible to the Licensed Content. When referencing TripAdvisor as the source of content, refer to it as “Powered by TripAdvisor"  
*Example:*  


**V. TripAdvisor Ratings Bar for hotels**

The TripAdvisor Ratings Bar must be used with the owl eyes and five green concentric circles for the overall rating of each property. The bar always has five circles whether the score is 5 out of 5 or 1 out of 5.   
owlcircles   
3 out of 5 is shown thus:  
3circs   
Sizing: 118 x 20 pixels

The TripAdvisor Ratings Bar must be shown for each property with the text “TripAdvisor Traveler Rating” and indicate the number of reviews on which it is based. This number is dynamic and must be kept updated.

*Example:*



TripAdvisor ratings bars must be served direct from TripAdvisor urls. Partner will not store and locally serve ratings bars.

**The Licensee will make all displays of Licensed Content non-indexable by search engines.**

**VI.** **TripAdvisor Content Policies**

Licensee will comply with TripAdvisor’s content policies at URL <http://help.tripadvisor.com/articles/200614797-Our-guidelines-for-traveler-reviews> (as such policies may be updated from time to time by TripAdvisor) to ensure the integrity of Licensed Content

**FACEBOOK API INTEGRATION**NOTHING DONE TO EXPLAIN

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 cell phones. Some clients simply could not download without first deleting some of their files.

According to our survey ......................  
  
  
  
img img img img

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 manage yours applications and physical store on mobile phones.

Booking is an Integrated application, mostly based on web application, where customers will only need to have access to internet, which will provide them a better way to enjoy the benefits of their existing accounts. (According to our survey, 100% of those would use this new web application).

The solution proposed, is based on a system that could be divided into 3 partes.

**Business side**When companies sign up for the "Booking" website service and set their parameters. They will have access to the client's history 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 of waiting, regular customer's service and also better way to handling your staff's.

**Customer side**

When customers start using the service with their new account or through other applications,they can make your's reservation with the restaurants that are available in this service. In addition they will have a report of yours reservation.

**Store side**The solution aims to provide the stores with 5 different options for manipulating the Booking application.  
  
 **a.** Providing a web application which could be accessed through any device that can open a web browser or app.  
 **b.** Providing a JavaScript language application which could be validate the different platforms and settings.  
 **c.**  Providing the cloud service for data storage and code type.  
 **d.** Providing the service needed to integrate other applications and their functions.

Thinking of any of those solutions, the system will performs such as "life map", where we will be making an login access, requests and profile history.

img img img  
  
SELECTION OF THE TEAM  
  
The members of the group were chosen based on their background and their strength on each part of the project also because of the relation that was had in these years of classes.

Paulo Gomes  
  
Renato Lima  
  
Roberto Wachholz Junior  
  
  
PROJECT GOAL  
In this section, we have outlined the main goals that we would like to achieve before the presentation date. These are as follows:

* + Conductiong a survey to collect information needed to:  
    - Ratify the problems listed in the Area Section.  
    - Help on better designing the solution.

- Check the commercial usability of the application.

- Check whether how customers will be using.

* + Researching on whether there is any similar solution available in the market. Is so, find out which companies and what they provide as a solution. (nothing like that to compare).
  + Putting together a comprehensive documentation about the application and Integrations.
  + Designing a database with fake data to manipulate.
  + Developing a Prototype.

***Some of the additional goals are:***

* Get the specifications for a server.
* Selecting an operating system for a server.
* Selecting programming languages.
* Selecting database.
* Design the database structure.
* Design the Html5 page.
* Design different platforms (customer and restaurant).
* Validations requests and accounts.

PROJECT SCOPE

The project scope is related to the project goals that we have identified in the previous section.

**Survey**

* The online survey will consist of simple questions about usage, management and suggestions.
* The survey will be conducted with a random group of *Restaurants* and *Customers*.

**Market Research**

* Online based research to find out about similar solutions, and to prove potential commercial value in the market.

**Booking format**

* Decide on which standard would suit the project better.
* Research the ways of implementing this application.

**Project Documentation**

* In order to get the documentation done, we will need to make sure that weekly meetings are conducted with all the team members. During these meetings, we will be discussing the points that were raised on the previous meetings and what has been done about them.
* We will also need to meet with our supervisor basis to ask any questions about the project and also to get guidance about which parts of the documentation we should improve.
* Each member of the team will be working on the project outside lecture hours. To be able to get the documentation together we will have to communicate effectively and efficiently via e-mails, chats or face to face.

**Prototype**

* Develop a prototype of the project.

***Limitations***In this section we will list the limitation of the Booking Application System.

* **Online Application**

The Booking Application depends on the internet to retrieve information from the database which is located in the cloud, this it cannot perform tasks offline.

* **Booking**Booking system will only be available if we have registered Restaurants.
* something else?????

The whole limitation of the project will only be know once the designing and development stage of the same start. Some limitations may be directly related to the technologies chosen, and others may be resulted by the lack of a more extensive knowledge in some areas. These issues are raised in the Risk Assessment section.

SELECTION OF PLATFORM  
In this section, we will describe the platform (operating system, programming languages and API's) that will be used to build the Application.

* **Customer Side**

The customer side of the Booking Application will use: HTML, CSS, JavaScript, MySQL Database, PHP and API's to make access through to the system.

* **Business Side**

The Business side of the Booking Application will use: HTML, CSS, JavaScript, MySQL Database and PHP.

* **Store Side**

The Store side of the Booking Application will use: HTML, CSS, JavaScript, MySQL Database, PHP and Cloud Storage.

* **Server Side**The server side of the Booking Application will use: MySQL, Apache, FileZilla and EC2 AWS System.

The selection of the platform was based on the Knowledge and experience of the Booking Application members, we are conscious that we will be facing a big challenge to put the whole Booking Application together, therefore we thought better not take risks and include anything else that is out of our knowledge range.

During the design and development of the project, we might need tp use an extra tool that not been included in the above.

PROJECT SKILLS REQUIREMENTS  
The following is a list of the knowledge and skills required so that the implementation of the project can take place.

* **JavaScript**

JavaScript is a programming language commonly used in *web development*. It was originally developed by Netscape as a means to add dynamic and interactive elements to websites. While JavaScript is influenced by ***Java***, the syntax is more similar to ***C*** ans is based on ECMAScript, a scripting language developed by Sun MicroSystem.

JavaScript is a client-side scripting language, which means the [source code](http://techterms.com/definition/sourcecode) is processed by the client's [web browser](http://techterms.com/definition/web_browser) rather than on the [web server](http://techterms.com/definition/web_server). This means JavaScript [functions](http://techterms.com/definition/function) can run after a webpage has loaded without communicating with the server

* **HTML5**  
  Hypertext Markup Language revision 5 (**HTML5**) is markup language for the structure and presentation of World Wide Web contents. **HTML5** supports the traditional HTML and XHTML-style syntax and other new features in its markup, New APIs, XHTML and error handling.
* **XML**Format that allows data exchange between different application.
* **PHP**  
  PHP originally stood for Personal Home Page, but it now stands for the recursive acronym PHP: Hypertext Preprocessor. PHP code may be embedded into HTML code, or it can be used in combination with various web template systems, web content management systems and web frameworks.
* **MySQL Database**MySQL is an open source relational database management system. Information in a MySQL database is stored in the form of related tables. MySQL databases are typically used for web application development (often accessed using PHP).
* **Application Programming Interface (API)**Set of functions and procedures that allow the creation of applications which access the features or data of an operating system, application, or other service.
* **Apache Web Server**  
  Web Server software that is responsible for managing content to the Internet.
* **CSS**  
  Cascading Style Sheets (**CSS**) is a style sheet language used for describing the presentation of a document written in a markup language.
* EC2 AWS Service  
  Amazon EC2 Container Service (ECS) is a cloud computing service in [Amazon Web Services](http://whatis.techtarget.com/definition/Amazon-Web-Services-AWS) (AWS) that manages containers. It allows users to run and alter applications or [microservices](http://searchsoa.techtarget.com/definition/microservices) on groups of servers called clusters through API calls and task definitions. Amazon ECS is a scalable service that is accessible through the [AWS Management Console](http://searchaws.techtarget.com/definition/AWS-Management-Console) and through [software developer's kits](http://whatis.techtarget.com/definition/software-developers-kit-SDK) (SDKs).

RISK ASSESSMENT