# Introduction

Craft beer is a beer made in a traditional or non-mechanized way by a small brewery. In recent years it has been observed an increase in popularity of these types of beers. According to the Brewers Association (BA)— the non-profit trade association dedicated to small and independent American brewers, mid-year data American craft beer production volume increased eight percent during the first half of the year.   
  
In Puerto Rico, there is currently a growing market of craft beer lovers but it is still difficult to find locations in where people sell the beers that they are looking for. The craft beer lovers of Puerto Rico lack a system that allow them search for a specific kind of beer, and show where they can find it, or search by locations in order to know what these locations are offering.  
  
Beer’s Route will be a mobile web application because it allows users to connect with their phones as well as their computers, increasing potential user market. This project will impact two sectors, craft beer lovers by helping them find places that sell a desired beer and business owners that sell beer.

The Beer’s Route team proposed to use the following technologies to develop this mobile web app:

* Client: HTML, AngularJS, Bootstrap, Ionic Frame
* Application Server: Java Play, IntelliJ
* DBMS: Postgres, PgAdmin

1. **Client App Description**

The client app will provide a login screen where existing members can login and new ones can sign up. When signing up the client has the option to register as regular user or as a business owner. A regular user profile is used for searching desired beer brands, rating and making wish lists. They can rate beers as well as establishments, which will affect the average rating that appears when searching for either of them. Regular users also have a news feed where they can see information provided by the businesses and other users’ activities. The business owner profile serves for promoting businesses that serve beer. They can mark their location and update their beer availability so that when users search for a certain beer and the establishment has it, it appears on the search results. They can also post updates about events which will appear on the regular user news feed. Business owners have a different news feed that only provides recent ratings and comments about their business from other users.

Searching for a beer is simple, the app will provide a search toolbar where the user writes the name of the desired beer and the app will return the beer’s profile. Searching will also work for looking up establishments. Each beer will have a profile that displays the type of beer, the average rating given by users, comments by users, the number of people that have this beer in their wish list and a list of establishments that currently serve the beer.

1. **Server Side Description**

The Application tier of the project will provide several RESTful services in order to connect the client side of the application to the Database System. The representation of the applications resources will be in JSON format, while the messages between the client and server will be sent using the Java Play Framework. The commands from the application tier will be used for example when a user is registered on to the application, when a business owner posts a craft beer, happy hour, or special event, when a regular user posts a rating to an establishment, and to update the application’s UI.

The signup process will consist of the user typing their username and email to the signup form. Afterwards the system will make a query to the Database to see if either of those fields already exists. If neither field exists, the system will send a confirmation email to the specified address using a library from Java Play. Once the user confirms the registration the username and email address are stored in the appropriate tables and the signup process will be completed. The payment process consists of the establishment owner user filling in the required fields such as credit card number, and amount to pay. After the user enters the required fields, the application will process the payment and the application will send an email with the receipt of the transaction. The application database will have several tables for the different types of users, as well as for craft beer, locations, credit card information, transactions, user ratings, comments on ratings, user wish lists, and multiple tables for the different kinds of news feeds.

1. **Work Assignment**

**Miguel Velez** will be in charge of the login, and signup screen, and all the interface related to it in the three tier layers. Also, Miguel will be developing the mechanism to send a confirmation email to users once they are registered to the application.

**Luis E Rivera** will create the posting information interface, where regular users will be able to post their ratings of the selected beers and establishments and the business owners will post beers availability, happy hour dates, establishment location, and details pertaining to any other special events. Luis will be on charge of all the work related to this feature in the three tier layers.

**Jose Rodriguez** will work with news feed of the application will give to regular users, and business to have a news feed that show them the information posted from every establishment registered in the system as well as the ratings and comments from other regular users. Establishments will have a different kind of news feed that only shows the ratings and comments from users who visited the establishment. Jose will have in consideration the three tier layers.

**The team** will work together providing a search toolbar that allows the regular users to find a particular beer or locations that they are looking for. Also, they will create a wish lists to stored their desired beer or the locations that they are desire to visit.