

# IBM Data Science Capstone

## Opening a bar in Sydney, Australia

### Introduction

For many residents, visiting a local bar is always a good way to relax and communicate after going through a high-intense working day. They can talk freely with friends, gather together watching football matches, and also the various parties held by different groups is also unmissable. The bars not only offer a place for people to get drinks but also offer a place to get people connected. As a result, bar culture is of the essence of Australia culture. And opening a nice bar at the right place considerable income. But when comes to the business decision it is more complicated than it seems like. And one of the determiner is its geolocation.

### Business Problem

The objective of this project is to analyse the best location to open a new bar in Sydney, Australia. With the help of data science methodology, machine learning methods like clustering and foursquare API. This project aims to give a business solution to the question: Where is appropriate to open a new bar in Sydney, Australia?

### Data

To get the problem solved, the following data is required.

1. Regions of Sydney. This help defines the scope of the project.
2. Latitude and longitude coordinates of those regions. These data are required to plot the map and also get the venue data.
3. Venue data related to the bars. We will use these data to clustering the regions and also calculate the frequency of the bars shown in the venye data.