**Introduction**

**Background**

Coffee culture is deeply rooted in Vietnam. The growth of coffee shops has been constantly growing. Especially in the city of Da Nang we want to estimate the best possible location to open a place of this type.

These data could be used for a business plan afterward.

**Problem**

As the goal of this is to create a business plan in the end, we need to make sure data from api are correct. We also need to check that customer could be interested in this specific business.

In order to do so, a survey in Paris and Versailles will be done in addition to data gathering. I’ll go in the cities and check at different hours if restaurants are working, if streets are full and so on, and what king of restaurant works well. This survey will allow to validate the data analysis done here.

Interest 

This study can be used by anyone interested by opening a restaurant. Or any other business.

Maybe they will need to modify some data.

**Personal interest**:

Actually, I plan to open this business, so this study is done very seriously, the survey also. This study is going to be a part of a business plan to give to bank in order to optain a mortgage to start a business.

Data 

This notebook is highly inspirated by the template given in the course. I will keep the idea of clustering the city by area and then plot heatmap to find better area.

I will change some data:

* Country/City: Da Nang
* Goal: Open a restaurant/little shop for workers in weekday and maybe Saturday So, I will cross data from working days, and localizations.

I will use the following API:

* Foursquare API: to find restaurant/venues
* Google API: reverse geolocalisation

**Neighborhood Candidates**

Let's create latitude & longitude coordinates for centroids of our candidate neighborhoods. We will create a grid of cells covering our area of interest which is aprox. 1.5km killometers centered around **Da Nang** city center.

Let's first find the latitude & longitude of Da Nang city center, using specific, well known address and Google Maps geocoding API.