SCHOOLS HISTORY AND GEOGRAPHY EDUCATION PROJECT(SHGE)

THE BATTLE OF NEIGHBORHOODS (WEEK 2)

CONTENTS

1. INTRODUCTION OR BACKGROUND

The Economic Affairs, Education and Research Ministry of Switzerland has succeeded in convincing the Federal Assembly to pass a law in support of the "History and Geography Education Project" tendered by The Secondary School Heads Union (SSHU) in 2018. The news was big in April 2019 within the secondary school environment. The bid showcased a request for the Federal Government of

Switzerland to allow the federal secondary schools to implement an already laid out requirement for all penultimate High school students to embark on a three-day international trip to some selected top museums in the Scandinavian country of Norway as part of the final school examination grading process. Granda High School in Dublin has been instructed to start a pilot visit in summer of 2020. Specifically, The capital city of Oslo and its neighbourhood was chosen.

THE CHALLENGES:

1. Most of the popular tourism companies in Switzerland lack the capacity and logistics to plan, handle and/or supervise a group of 25-00 students travelling to-and-fro Oslo simultaneously

2. The Swiss Education Ministry prefers to work directly with any good reputable Tourism company based in Oslo and also has a branch office in the UK and has therefore, advertised to get a company based in Norway to tender a proposal meant to attain the above objective

2. DATA DESCRIPTION SUMMARY

After a series of discussions and meetings, it was quickly decided that the best data containing top-rated attraction centres and museums in Oslo will be fetched from PlanetWare Inc., which is based in Richmond Hill, Ontario, Canada. The summary of the first dataset is shown below. The second dataset will primarily be a listed number of affordable Italian restaurants close to the well-equipped Scandic Hotel accommodation suitable for students in high schools in terms of hotel size and facilities.

First Dataset contains 14 Top-Rated Tourist Attractions in Oslo. The project stipulates not more than 14 destination in the area of interest to make it easier for students to work with one another and

complete their projects within the shortest possible time. Oslo is one of the world's largest capitals in terms of area, but only 20 percent of this land mass has been developed - the remainder consists of parks, protected forests, hills, and hundreds of lakes. Parks and open spaces are an integral part of Oslo's cityscape, and are easily accessible from almost anywhere in the city. The centre is a joy to explore on foot thanks to the numerous pathways and trails connecting its public spaces, as well as its many pedestrian-friendly areas, including the city's main street, Karl Johans gate. Stretching from Oslo Central Station near the waterfront all the way up to the Royal Palace, this wide avenue passes many of Oslo's tourist attractions, including the palace, the National Theatre, the old university buildings, and Oslo Cathedral. Regularly ranked as one of the best cities in the world in which to live, Oslo boasts a rich cultural scene and numerous things to do, and is famous for its theatre, museums, and galleries. At the end of the trip, every student would have been equipped and more enlightened to go to the final year in school with clearer goals regarding their future History, Geography, Science & Engineering studies and careers.

Second Dataset depicts near neighbourhoods (using **FourSquare API**) to the chosen Scandic Hotel for the students accommodation. The purpose is to have a first hand view of available restaurants in order to give the students the opportunities to make choices regarding meals even before they arrive Oslo and to ensure that after the stress of vising the attraction centres chosen for the day, its get a lot easier have dinner and end the day.

GOALS AND SUCCESS CRITERIA

In an executive meeting of my company, 'Tour 2 Learn', we were convinced we could deliver the laid out requirements by the Swiss Ministry of Education. We are to come up with several details in a business case to tender to the Swiss body.

As a Data Scientist, I was asked to come up asap, with about 14 best tourist centres within the Oslo area suitable for young students of

history, science and geography. Affordable Hotels recommendation by Tour 2 learn will be crucial and a maximum of one hotels within the Oslo city centre is paramount, as the students will be expected to stay close to one another for a proper supervision and monitoring.

3. DATA EXPLORATION-- CLEANING AND WRANGLING

We shall need just 4 main features from the website to get started: the list of attraction places, their addresses and their official websites and will be basically sufficient (in addition to recommended hotel accommodation - second dataset) for our exploration and analysis. With grounded facilities plan, this will ultimately convince the Irish Ministry of Education to approve our proposal.
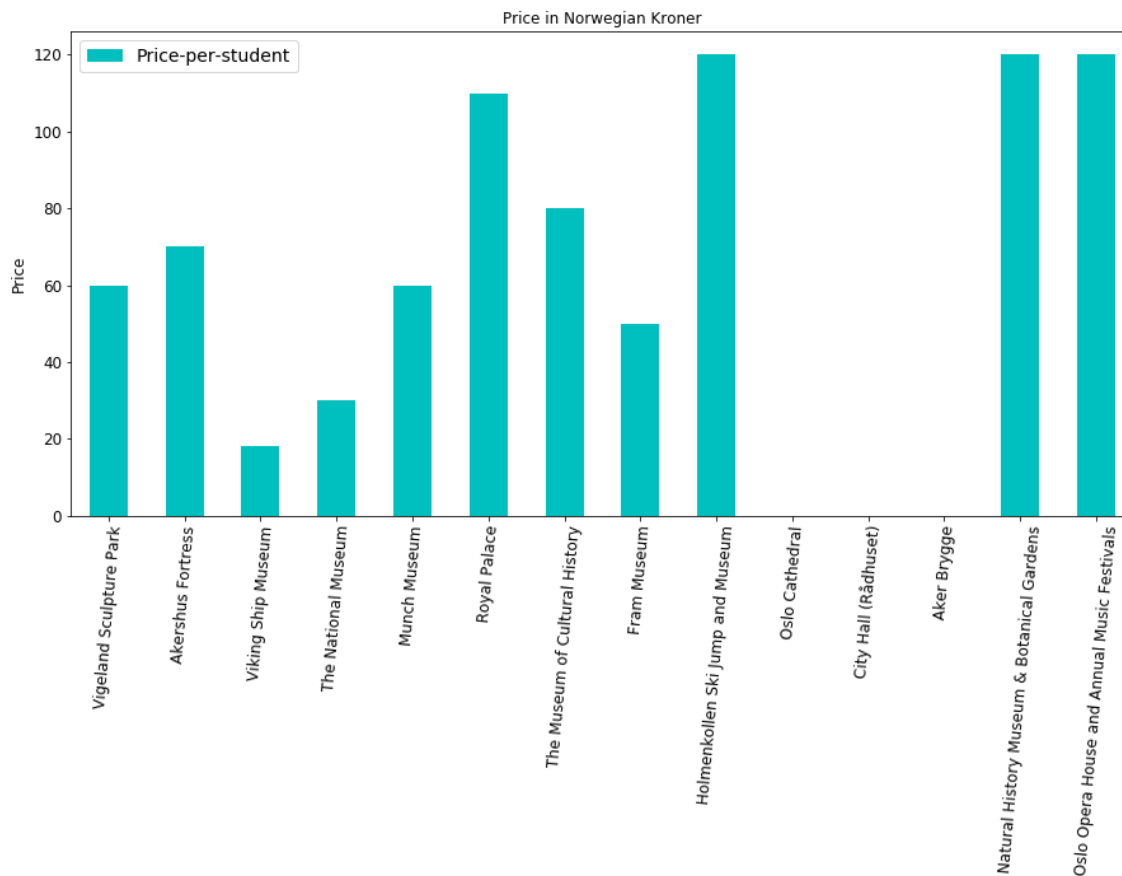
Foursquare API We will be utilized to obtain the latitude, longitude locations of the listed attraction places so that we get a handy map before the students leave Ireland for Norway.

LOAD THE RATINGS AND FEES FOR ALL TOURIST ATTRACTION VENUES

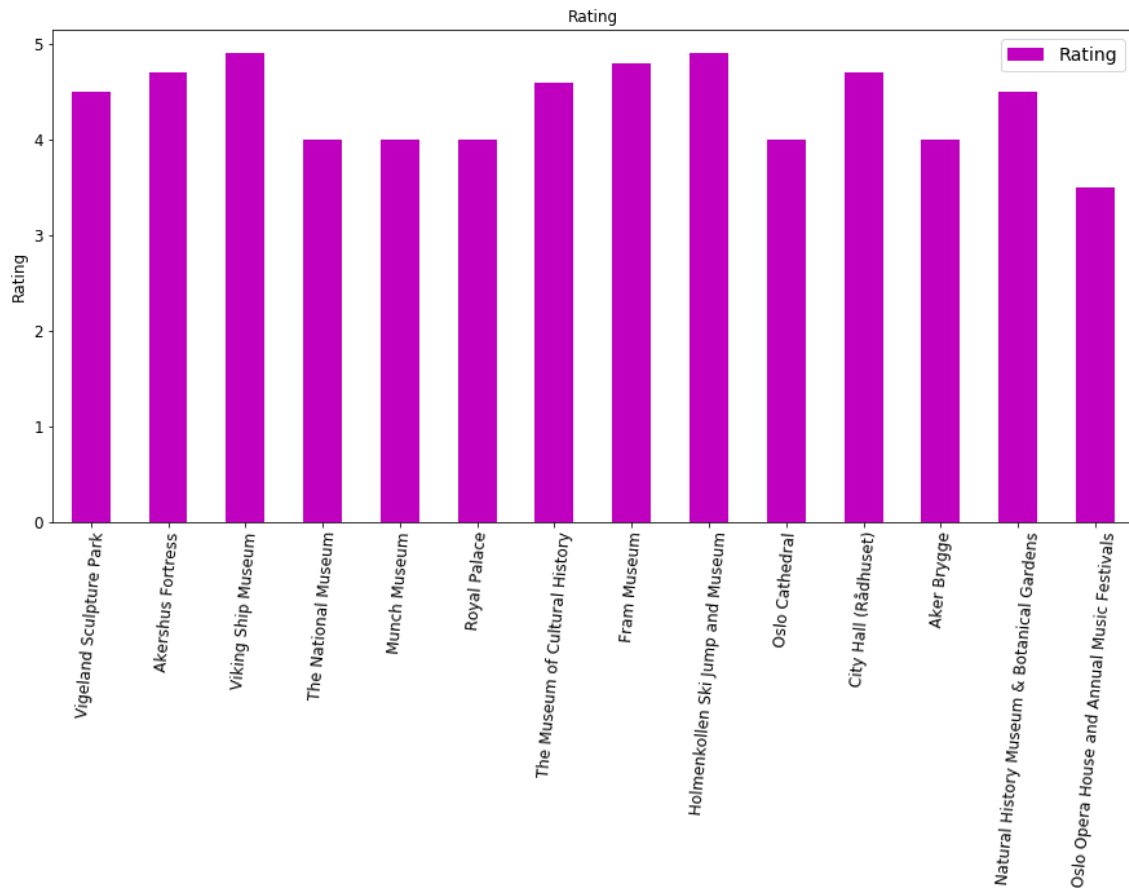| Attraction-Center	Price-per-student	Rating
Vigeland Sculpture Park	60	4.5
Akershus Fortress	70	4.7
Viking Ship Museum	18	4.9
The National Museum	30	4.0
Munch Museum	60	4.0
Royal Palace	110	4.0
The Museum of Cultural History	80	4.6
Fram Museum	50	4.8
Holmenkollen Ski Jump and Museum	120	4.9
Oslo Cathedral	0	4.0
City Hall (Rådhuset)	0	4.7
Aker Brygge	0	4.0
Natural History Museum & Botanical Gardens	120	4.5
Oslo Opera House and Annual Music Festivals	120	3.5

Note I found out that for all of the 14 museums or attraction centers, the cost for adults is the same as the cost for students provided adults

and (teachers) and students are traveling together as it is the case in this project.

Price in Norwegian Kroner

NOTE

It is very likely the client in Ireland will most likely reduce the number of attraction places to about five or six. But it is good to notice that visits to Oslo Cathedral, Aker Brygge and the 'Oslo City Hall' (Rådhuset) if free of charge. Aker Brygge will suit any students of science while Oslo cathedral and Rådhuset will definitely be top choices for students of history. The zero price is significant to note when making a final list of the places for students to visit. Holmenkollen Ski Jump and Museum and Viking Ship Museum are the only to museums listed by the Schools History and Geography Education Project. It can be seen that their ratings are the highest. We therefore, recommend these two to be among the best attraction centers for the students to visit in the course of a three-day visit to Oslo

Rating

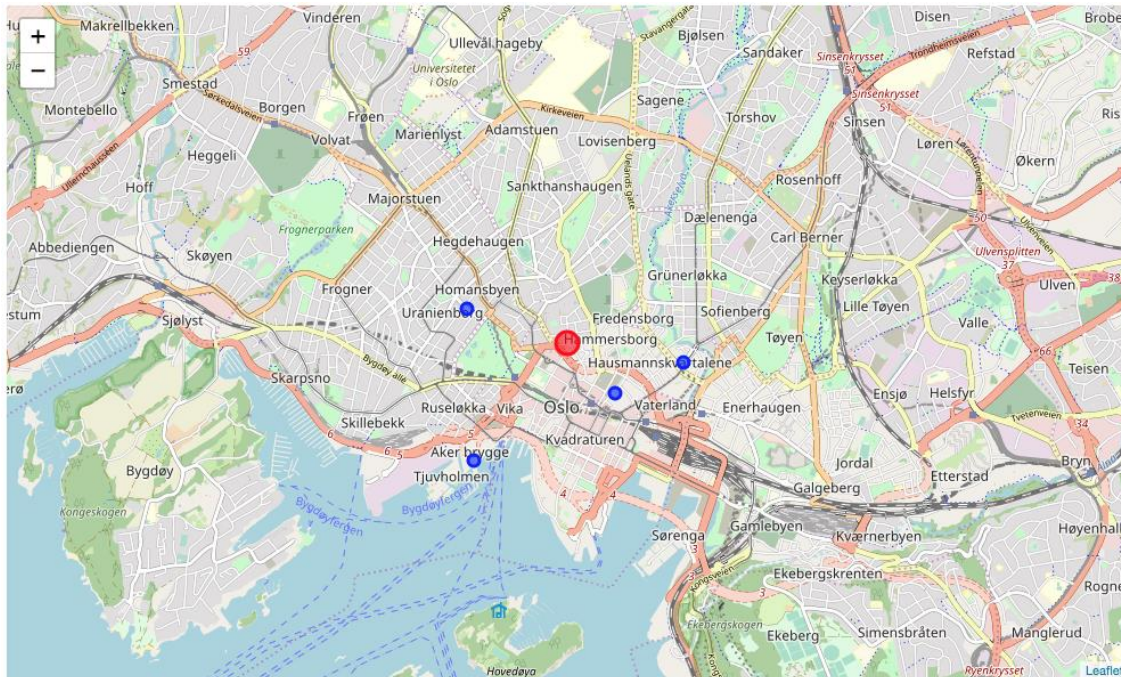## 4. USING FOURSQUARE API TO OBTAIN LOCATIONS

One major goal here is to plan ahead to locate available restaurant for the students' dinner as they have voted overwhelmingly to have dinner at an Italian restaurant. The students and the accompanying teachers will be staying at the Scandic hotel. The objective is for them to be stick around as close as possible and both in terms of accommodation and choosing a restaurant. So let's start by converting the Scandic Hotel's address to its latitude and longitude coordinates

The popular menu for dinner amongst students is 'Chinese'. This will be covered by the project budget. So, let's define a query to search for Chinese food that is within 500 metres from the Oslo Scandic Hotel.

This will be handy for all members of the team when it's getting close to dinner time.

The map below shows Scandic Hotel in red and the chosen restaurant in blue.

5. RESULTS

Indeed, the trips can be planned by the school even though the flight tickets are to be taken care of by the parents and guardians of the students.

The students, teachers, The Irish Ministry of Education, Schools History and Geography Education Project board (SHGP) and The Secondary School Heads Union (SSHU) now have first hand information:

1. A project plan (both in digital and paperback format) that will be available for everyone, including students

2. The detailed names of attraction centers (museums, etc.)
3. The websites of the visiting centers can be visited and explored even long before a schedule trip
4. The addresses of all attraction centers are now known.
5. Price information is fully available
6. Ratings for all museums are obtained
7. Information regarding hotel and accommodation is clear
8. A brief map of the Hotel neighborhood is handy, which includes the restaurants chosen for the visit

6. RECOMMENDATION

1. The price and ratings may change by 2020, so an up to date information should be appended to the project plan by the Schools History and Geography Education Project board (SHGP).

2. After the first visit by the Granda Hight School students in 2020, there should be a survey to generate feedback with intention of improving the next visit to Norway.

7. CONCLUSION

We have used the power FourSquare and other Data Science tools to show that a group trip from one country to another can be well planned by simply get information involving available data without the hassles of embarking on too many trips and a long chain of meetings. The wonderful feature of FourSquare API has helpled us to pre-plan a journey and studying our neighborhood with clean and clear maps.

DATA SCIENCE CAN INDEED MAKE TRIPS AND JOURNEYS AND EVEN THE FUTURE EDUCATION OF NEXT GENERATION OF STUDENTS MUCH EASIER.