

Introduction & Problem

This project was developed and analysed from the viewpoint of a town official of the City of Melbourne, who wants to find out where the residents of Melbourne like to frequent and as a result also wants to find out which place is the most popular.

In order to satisfy the town official’s requirements, the script answers the following three questions:

- 1. Which of the building (amenities) has the most check ins?
- 2. Whether there are any friends who have checked in together in that location?
- 3. What type of establishments (buildings) have they checked in as well?

Motivation

The motivation to ask these questions is that, these are similar to everyday problems that town officials face in order to run their towns. In order to plan how the town grows and improves, they must have their finger on the town’s pulse and also to learn more about the residents of the city. With the analysis that will be provided, it will surely be beneficial in helping the town officials make their decisions that will directly affect the lives of their fellow residents.

Summary of Key Steps

The first query was to acquire the list building amenities with the number of check ins that had been made. From that list the amenity with the highest number of check ins (Townhall) (first bar graph in Figure 1) was selected as a candidate for further investigation, and also answering the first question.

The we obtained the trend of check ins over the years by date from which a pattern can be seen which was further investigated and resulted in getting information whether the check in was made on the weekday or the weekend. The time series investigation was rounded by getting further information about whether the check in was made in the morning, afternoon, evening, or night.

Then information regarding people who were friends was collected and after further investigation Figures 2 and 3 were generated which show two users who are friends and the building type where they each checked in. This information is quite interesting as it further tells about the people who are checking in and where they usually spend their time.

Key Results & Analysis

From this exercise, it was interesting to see some patterns emerge which were not at all expected. One of the observations that really was really unexpected was that the townhall received the most check ins on the week day at night and the next highest were on the week day in the morning. It was presumed that places like the townhall would be popular attractions during the weekends, but this was not true. The analysis done on the two friends (122796 and 122797) was interesting as well as it shows that both of them like to spend their time in the Town hall. It can also be seen that the two are a bit religious as they also went to the Chapel and may either be students or part of the faculty as they had also checked in a college, but they must have just been visiting as well these specific places because the number of times they have checked in is quite low. The charts given below were generated in Python using a visualization library called matplotlib.

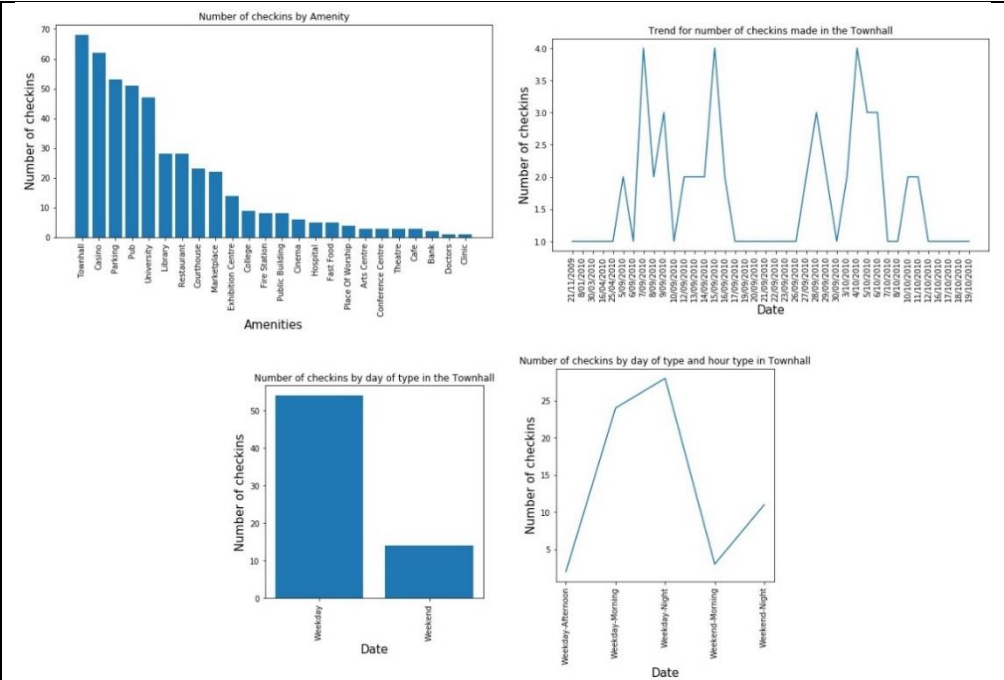


Figure 1: Statistics extracted about the checkins made at the Townhall

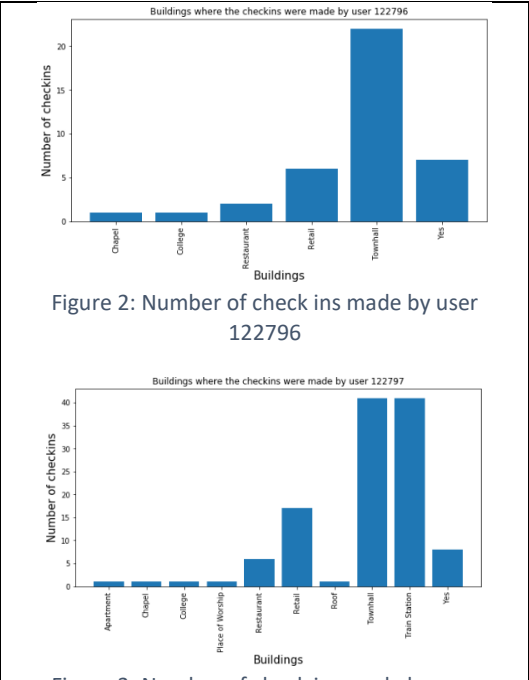


Figure 3: Number of check ins made by user 122797