Finding an Apartment near UIC

Coursera Capstone project

Coursera IBM Data Science Certification

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Report Content

1) Introduction Section:
   i) The "business problem" to be solved by this project and who may be interested.

2) Data Section:
   i) Describe Data requirements and Sources needed to solve the problem.

Introduction

1) **Scenario and Background**

   Wanting to pursue a Masters in Computer Science, I applied to a number of colleges in the US. I recently got an admit from the University of Illinois at Chicago for their Masters in Computer Science program. Having finalised the university, I was going to move to Chicago in a few months' time.

2) **Problem to be resolved:**

   I wanted to find a suitable apartment to share with a friend. The apartment had to be near the university to cut down on commuting time and also to be safe because Chicago is the crime capital of the US. The criteria for selecting the apartment was as follows:

   i) Minimum 2 bedrooms.

   ii)   Near the university (within 3-5 miles)

   iii) Subway station nearby.

   iv) Good venues nearby for relaxation and eating out.

   v)   Monthly rent not more than $2000.

3) **Interested Audience**

   I believe the methodology, tools and strategy used in this project is relevant for a person moving to a new city and has to find a place to live. The use of FourSquare data and mapping techniques combined with data analysis will help resolve the key questions arisen while searching for the place to live.

Data Section

1) Data Requirements

    i) List of apartments for rent in Chicago near the University of Illinois at Chicago. The data was scraped from the apartments.com website. https://www.apartments.com/off-campus-housing/il/chicago/university-of-illinois-at-chicago/student-housing/

    ii) List of subway metro stations in Chicago with name and geo locations. The data was sourced from: https://data.cityofchicago.org/Transportation/CTA-System-Information-List-of-L-Stops/8pix-ypme/data

    iii) List of neighborhoods was taken from the apartments data because I needed the venues for the neighborhoods which had an apartment available for rent.

    iv) List of top 10 venues for each neighbourhood. The data was sourced using the Foursquare api.

2) Data Processing

    a) The Geo Location of each apartment was found using google maps geocoding api.

    b) The Geo Location of each neighborhood was found using google maps geocoding api.