1. A description of the problem and a discussion of the background. (**15 marks**)

**Problem Description:** My Capstone Data Science Project will be solving a Renter’s Dilemma in the battle of Neighborhoods. Basically, when people decide to move into a new city, they want their new neighborhood to meet certain standards. Thus, my Capstone Project will be mapping the requirements of a new renter to the offerings of various neighborhoods to decide the best possible move for the user.

**Description of the Background:** In today’s world people need to keep changing location or move houses either due education, or new job or other family reasons. Affordability and accessibility of the new place is always a concern for movers especially if moving into a new city. If a person needs to rent a place in such a scenario it becomes helpful to understand what are the offerings of the new place and whether they comply with the pre-requisites that the user might have like type of restaurants nearby, entertainment hubs like movie theater and means of public transportation. Thus, the data science project will map the neighborhood offerings to users wish list to find the best possible match.

1. A description of the data and how it will be used to solve the problem. (**15 marks)**

Data will be obtained for New Jersey City Neighborhoods through Foursquare API. The RESTful API calls will be used to get the data using request module in Python and Jupyter Notebook. The user has following requirements:

1. The neighborhood should have good Italian restaurants in the vicinity
2. The neighborhood should have bars in the vicinity
3. The neighborhood should have parks and recreational area

The user has shortlisted five neighborhoods in Jersey City, New Jersey viz. Greenville, West Side, Paulus Hook, Curries Woods, and Journal Square. Foursquare API will be used to obtain data related to Italian Restaurants, Bars and Parks and recreational areas in each of the neighborhood. Then clustering and segmentation will be done using k-means clustering and ratings will be assigned to find the best match as per user requirements.