COURSERA CAPSTONE PROJECT

BATTLE OF THE NEIGHBORHOODS

Prithvijit Gupta

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FINDING A LOCATION

for setting up of an office……

Criteria

Sl. No.	Criteria	Remarks
1	Commercial property rates	The office has to be located in an area where the commercial property rates are preferably low.
2	High number of restaurants	Its customers may have variety of choices for their snacks/ food in case hotel menu is not to their liking.
3	High number of hotels	The client can arrange for both conferences and lodging for the customers.
4	Distance from city airport	The customers may save time in transit

Problem / Challenges

- Various real estate websites provide data on commercial properties
- Various other websites providing location of restaurants and hotels.

Problem is to find an optimum location meeting the above 4 criteria.

- Scraping through websites and other sources of information, gathering, aggregating and processing such raw data locating such an area/ location will not be possible.

SOLUTION

Such problems and situations can be dealt through :
Applied Data Science

The Project will aim to provide a solution based upon the USER INPUTS.

Project Goal:

To enable the user to take a decision by scoring each location of the chosen city on the basis of the parameters/ criteria and thereby, trying to quantify the result/ output through scoring.

Involving the stakeholder

- **Choose a city** from the 4 metropolitan cities in India

- **Choose** ways of selecting the **database**, namely:
  - Scrape through website and take database from the site :(www.magicbricks.com/)
  - Use existing database.

- **Choose** the **type of property**, i.e:
  - Buy a property under construction,
  - Buy a readily available property, and
  - Take a property on lease rentals.
-
- **Assigning Weights** to all the 4 parameters/ criteria on a scale of 100

USER INPUTS *(example):*

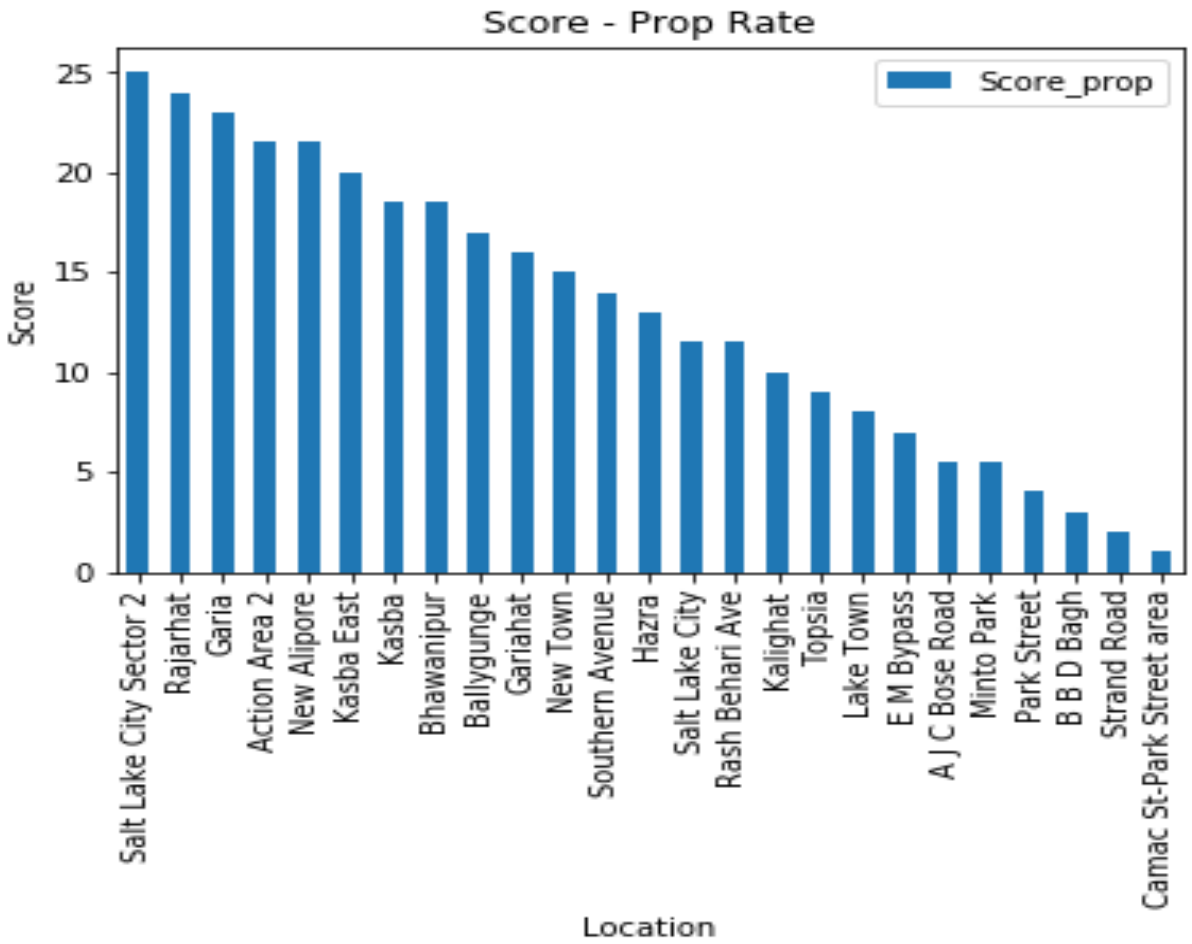
City: Kolkata
Choice of property: Property on rent.

WEIGHTS:

- Weight for restaurants : 35.0
- weight for hotels: 35.0
- weight for property price/rentals : 10.0
- weight for distance from airport : 20.0

SCORING RESULTS

SCORING - Property Criteria:

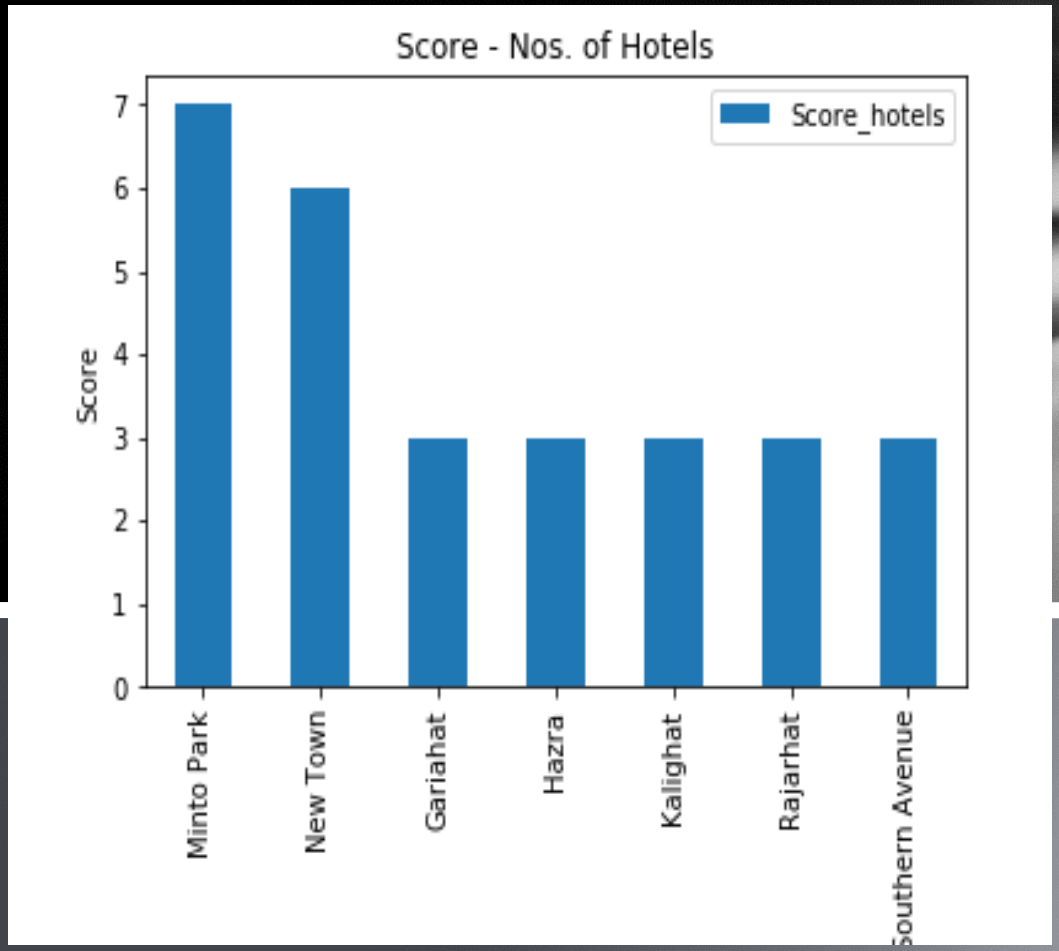


SCORING RESULTS

SCORING - Restaurant Criteria:

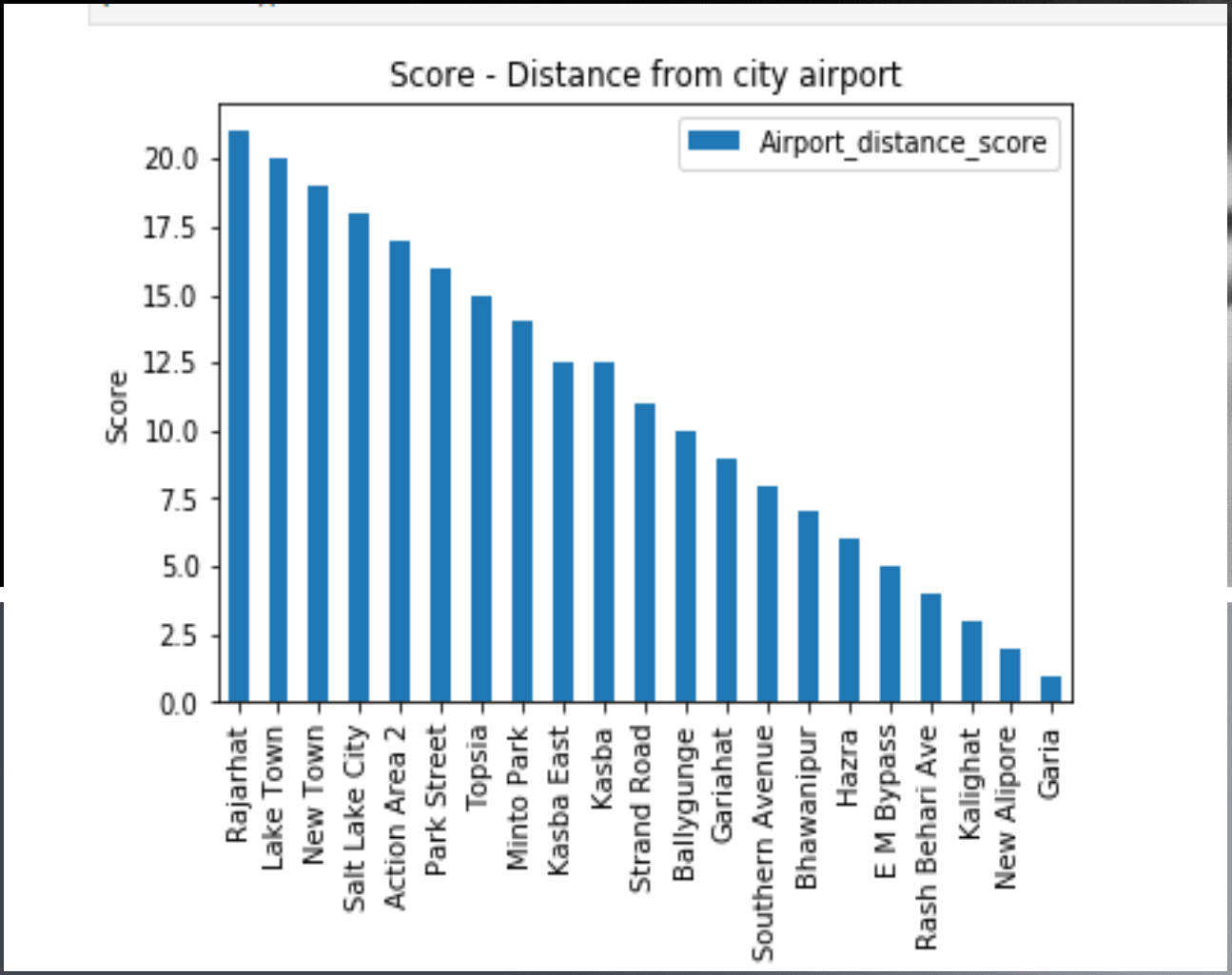
SCORING RESULTS

SCORING - Hotel Criteria:



SCORING RESULTS

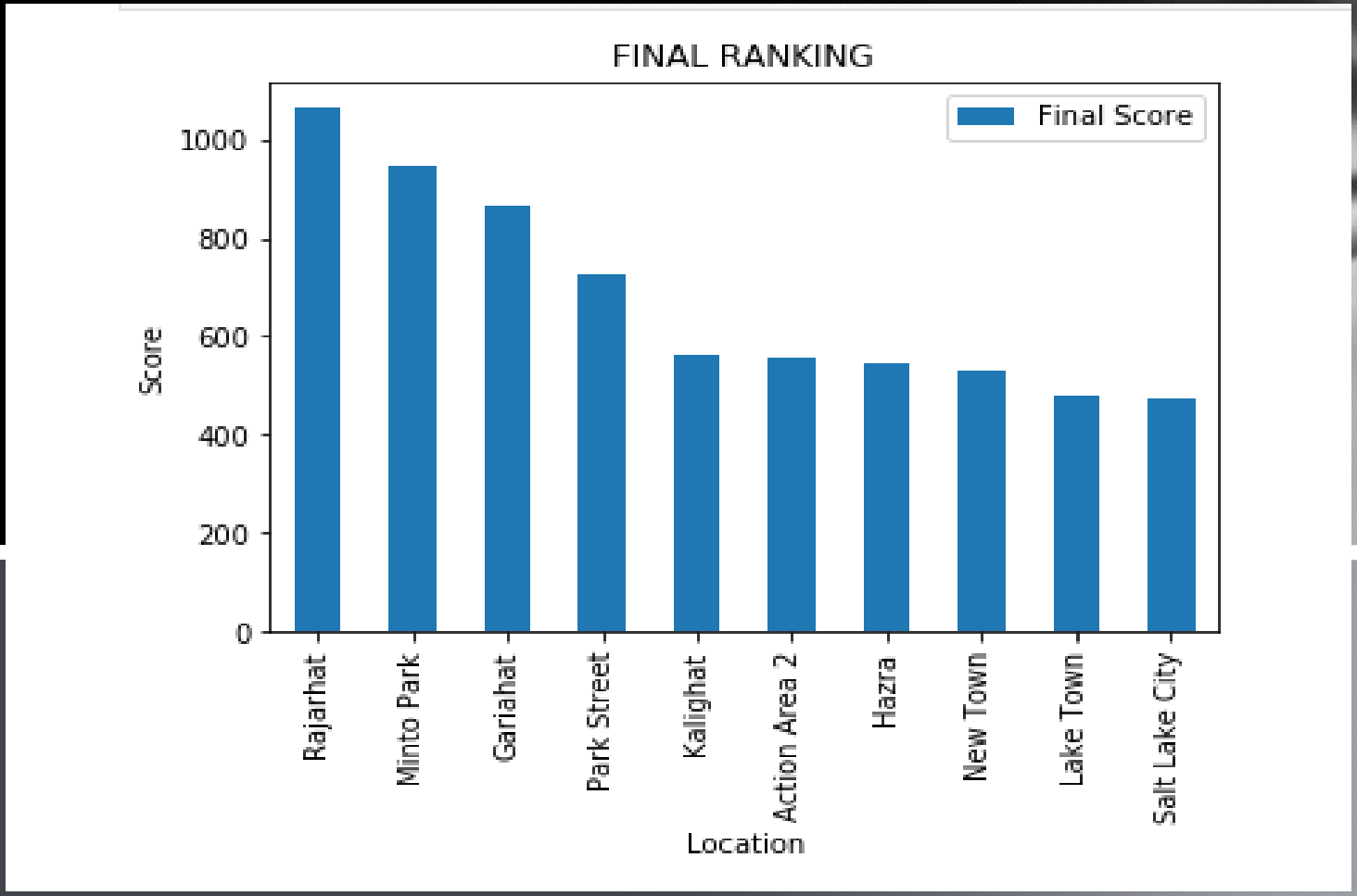
SCORING – Airport Distance Criteria:



FINAL RESULTS

Rajarhat has highest score, optimum choice.

SCORING – FINAL RANK



ERROR / EXCEPTION HANDLING

Guiding the client/ user:

User Interactive program -dependent upon the inputs from the user, quality/ quantity of data is prone may be affected due to **invalid entries** by the user.

Program designed to handle errors/ exceptions arising out of invalid entries.

The programme will also provide an explanation/ message why the input entered by the user is invalid.

Discussion and future directions

- ✓ The model is dynamic in nature as the results may differ as per the preferences of the user.

- ✓ The goal has been achieved where in the final result, we were able to compare locations based on the scoring arrived from the model.

- ❖ The exercise may improve further strength if more information were assimilated and incorporated within the model like:

    - Crime rates in different localities,
    - Availability of infrastructure facilities,
    - Extent (area) of properties, etc.

However, such databases / substantial information are not readily available. If such data are made available in future and incorporated within the model, the analysis is slated to become more robust.

Thank You