

**“HOMEOUTLOOK”**  
**APARTMENT RECOMMENDATION SYSTEM**

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## **Abstract**

The fundamental human needs to live are food, water, air and shelter. Home is the place where the basic, emotional, psychological, and social needs of every individual human become fulfilled. The author did the apartment recommendation which is one of the categories of housing. People always search for a good apartment among the options. Normally the people are looking for new apartments from websites and newspaper advertisements, but they are providing only the dimension detail of the apartment and internal facilities of the apartment. To select an apartment internal facility is not sufficient. When we selecting the apartment only considering the internal facilities, for the time being it makes us happy but in future, the happiness will be affected due to the external factors. If every individual goes through the external factors of the apartment, it will take more time and it's not possible.

To sort out this problem the author proposed the web application which recommends apartments by considering the external factors such as nearby user interesting places like school, hospital etc. The nearby user interested places were collected using the google maps API and Foursquare API. As a product, the HomeOutlook Apartment Recommendation web application was developed.

The recommendation system was tested according to the testing criteria and the performance was also tested based on the analysis of the recommendations by HomeOutlook. Domain experts stated that the solution performed well and produced acceptable recommendations. End-users of the proposed solution rated this product as useful and valued that the research solved the identified problem.

**Keywords:** content-based filtering, recommendation, apartments, nearby-places, external factors, foursquare API, google places API, beautifulsoup, cosine similarity, TF-IDF