

Final Report: *CSE299*— Section:12

//BUG BUSTERS//

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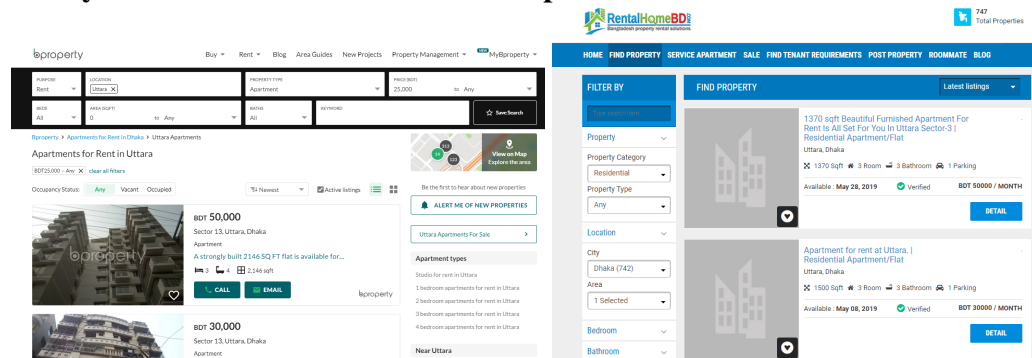
Plot: 15, Block: B, Bashundhara

This document is made for showcasing the final result of our proposed project "EasyApartment". We will briefly discuss the history of our project and significance of the service it will provide.

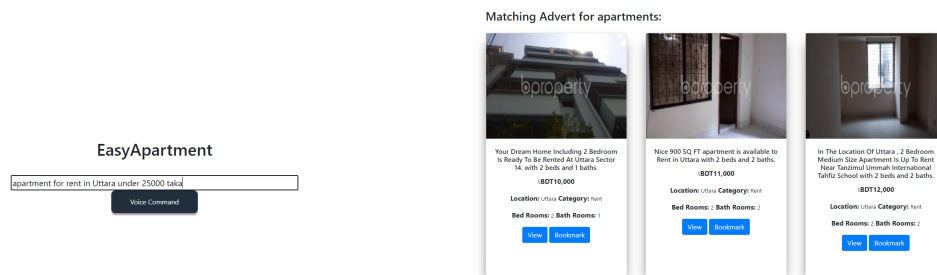
Introduction

The goal of our project is to make finding your desired apartment without any hassle and as fast as possible. People waste hours of their precious time visiting multiple real-estate websites to search for apartment listings using the exact same parameters. They waste their time and valuable resources, no to mention the process itself is very cumbersome. This specific need of comparing multiple sites is what motivated us to work on this project. Imagine that you need an apartment for rent in Uttara under 25000 taka; you'll have to visit multiple website to find the best deal.

How you will have to search with same parameters on both sites:



Search only once on our site:



This will not only save your precious time and effort but also save some paid resources like electricity and internet.

Literature Review

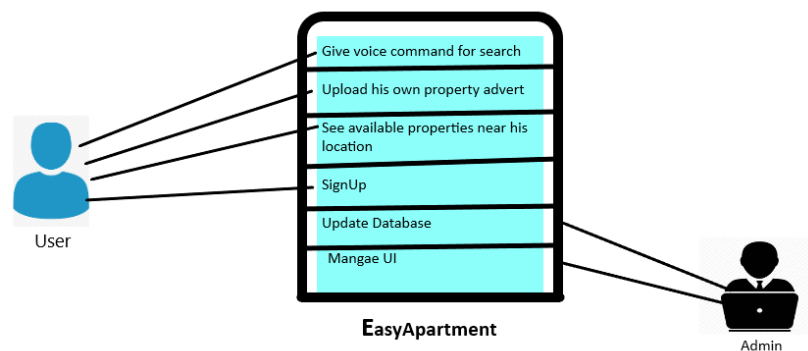
There are indeed some websites out there with similar concept for hotels, i.e. **Trivago, Airbnb, etc**; but our WebApp will provide service for people in Bangladesh for finding their dream apartment, cause there is nothing out there in Bangladesh similar to our project **”EasyApartment”**.

What to Send In

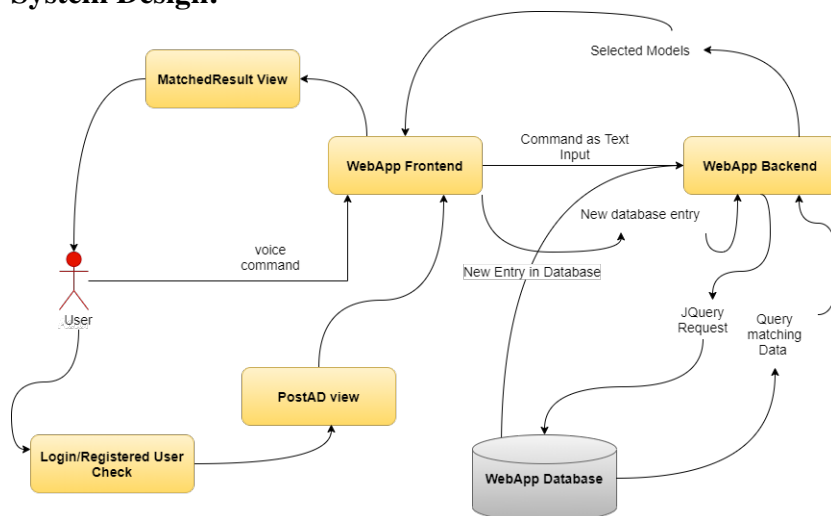
We will be using the Django Framework for writing the back-end scripts and rendering the front-end HTML and CSS codes. We will start by testing each part of our component first.

Like first testing out the webscraping script, then script to automatically populate the Django database. Then testing out different speech recognition API and scripts to find out which one works and which has the best accuracy. Once all of the individual components are done some members will write the back-end and the remaining members will work on the HTML, JS and CSS codes. Project will be completed after we link up our individual works.

UseCase Diagram:



System Design:

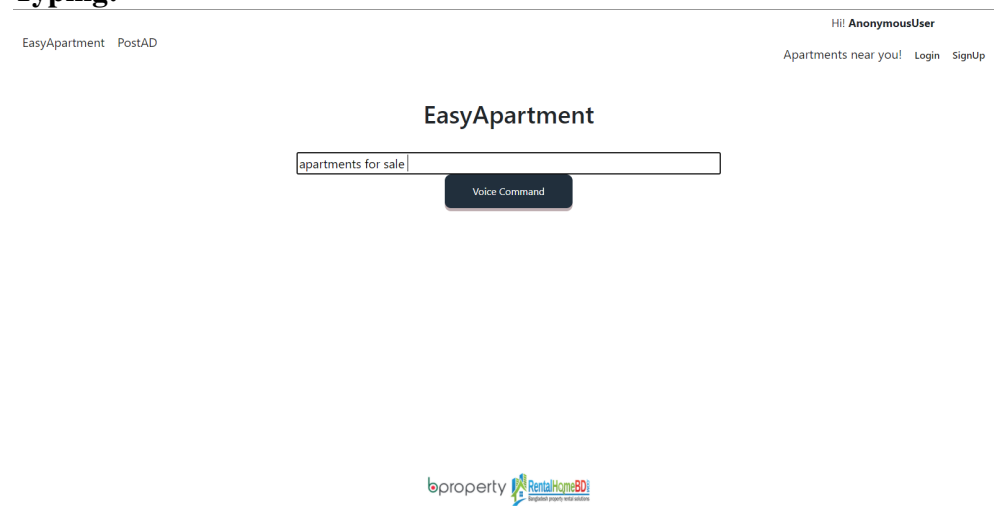


Analysis of the results/Experimental Result

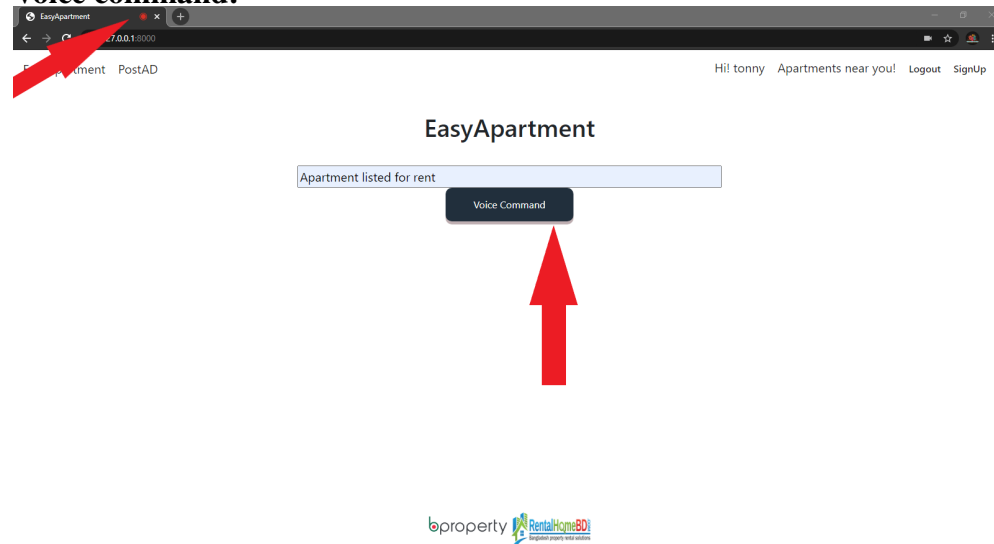
Final results of our project:

Typing and Voice search: On our WebApp people can either search for apartments by typing or giving voice commands. Either method of search input works flawlessly.

Typing:

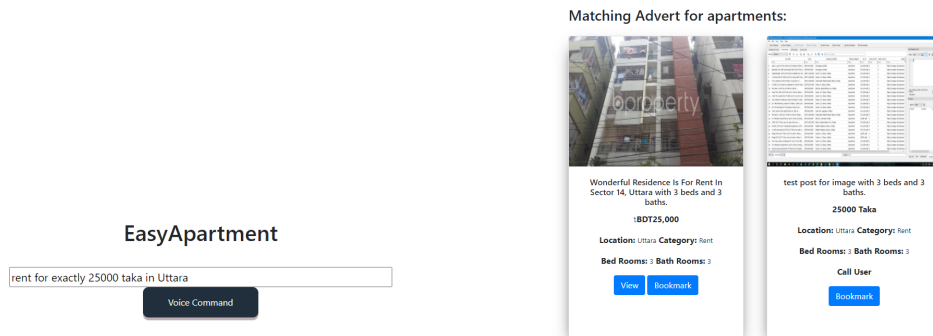


Voice command:

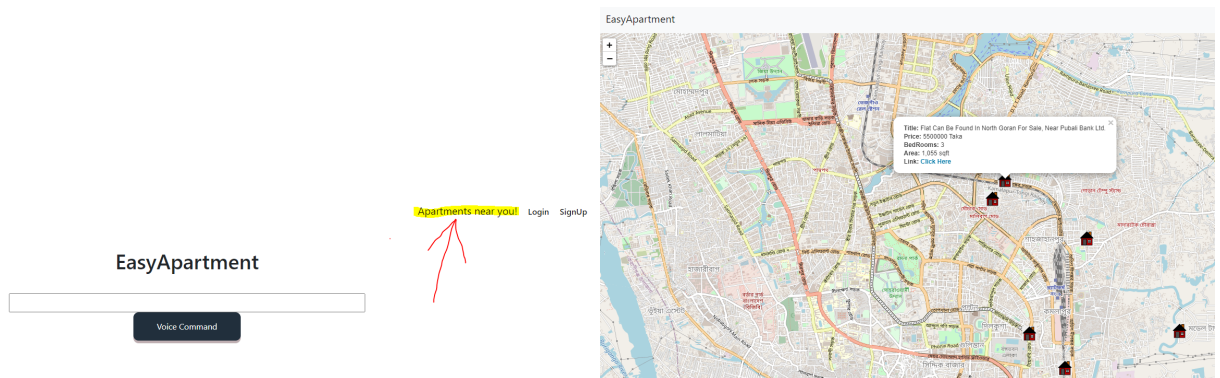


Searching Multiple Sites at Once: One search with your desired parameters shows matched apartment adverts from multiple major real-estate websites (number of websites to compare is scalable).

EasyApartment PostAD



Map View using location: Users can go to map view portion of our website to find and view informations for only the apartments available near his location. This is a very useful feature for people looking for apartments only near their current location; not to mention this even gets rid of the simplified search mechanics of our WebApp.

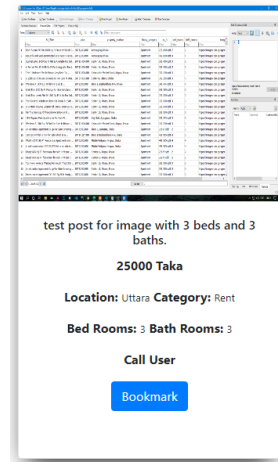


User posting Advert: Authenticated users of our WebApp can post their own advert.

EasyApartment PostAD

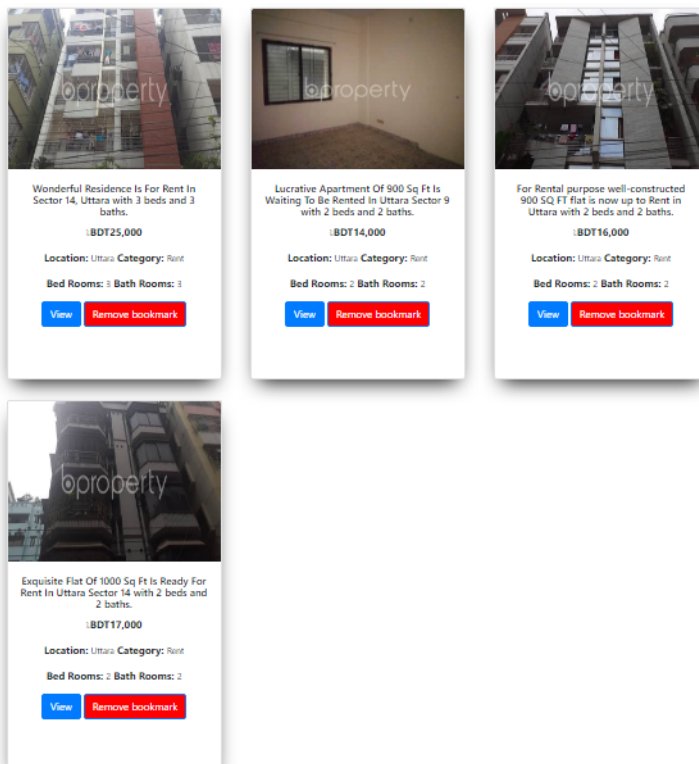
Post Your Advert


Filling up every filed is mandatory



Bookmarking adverts: Authenticated users can now bookmark their favourite adverts and view them later at once. They can also remove any bookmark if they desire.

Apartments You've bookmarked:






Wonderful Residence Is For Rent In Sector 14, Uttara with 3 beds and 3 baths.

BDT25,000

Location: Uttara Category: Rent

Bed Rooms: 3 Bath Rooms: 3

[View](#) [Remove bookmark](#)




Lucrative Apartment Of 900 Sq Ft Is Waiting To Be Rented In Uttara Sector 9 with 2 beds and 2 baths.

BDT14,000

Location: Uttara Category: Rent

Bed Rooms: 2 Bath Rooms: 2

[View](#) [Remove bookmark](#)




For Rental purpose well-constructed 900 Sq Ft flat is now up to Rent in Uttara with 2 beds and 2 baths.

BDT16,000

Location: Uttara Category: Rent

Bed Rooms: 2 Bath Rooms: 2

[View](#) [Remove bookmark](#)



Exquisite Flat Of 1000 Sq Ft Is Ready For Rent In Uttara Sector 14 with 2 beds and 2 baths.

BDT17,000

Location: Uttara Category: Rent

Bed Rooms: 2 Bath Rooms: 2

[View](#) [Remove bookmark](#)

Performance Analysis:

We wanted to make a analysis of the performance of our websites capability to search and show adverts in comparison to manually search for the desired adverts. So, each member and an outsider(4 people) was tasked to search 2 major real-estate websites with the goal of "apartment for rent in Uttara forr under 25000 taka" and bookmark 4 adverts.

Time Analysis:

Attempts	Searching Multiple Sites Manually (Time Taken)	Searching On our WebApp (Time Taken)
01	4 minute and 41 seconds	1 minute and 13 seconds
02	4 minute and 13 seconds	1 minute and 46 seconds
03	3 minute and 6 seconds	1 minute and 03 seconds
04	4 minute and 35 seconds	1 minute and 21 seconds

Average time taken for manual search = 4 minute and 14 seconds

Average time taken using our webapp = 1 minute and 33 seconds



Conclusion and Future Works

Our WebApp has potential to grow in Bangladesh as real-estate market has been on a steady rise since past few years; so there are a lot more real-estate websites available for searching apartments than ever before. Peoples need for convenient and faster way of searching their desired apartment can be delivered by our WebApp 3X-4X faster than the primitive way of searching on every site available.

So, in the near future we want to polish our WebApp's UI and work out better ways of doing some task like: bookmarking, SignUp and Posting advert; and after it is fully polished and optimised, we would work on to publish our work.

Team Members and Work Area

Runayet Kabir Tonmoy: (i)Backend programming (ii) Web Scraping Scripts
(iii) Project management

Nazmul Hassan Shaikot: (i) Design and UI (ii) Html and CSS

Nihal Hossain: (i) Backend for Login and SignUp (ii) Helped with Web Scraping