Real Estate Recommendation System

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ABSTRACT

Technology has advanced in the field of Online Real Estate Marketing, market trends and advances in various techniques such as data science, editing and filtering algorithms, machine learning is growing rapidly These days, however, web sites for sale are paying a lot of money to get their services. Our proposal the web site overcomes this problem and provides customers with free services so that they can access the information you need and to measure future market trends and technologies in a friendly manner. Ours The website is basically an online service where the user will be able to buy / rent / sell properties as they wish Focus on building an easy-to- use web application. This can help people to communicate easily with buyer / seller / employer, as this program uses the KNN process to process user queries, to identify the key words, align them with Knowledge Base and respond with real results. To make the answers more understandably, answers are made using classification techniques and produce non-textual responses to can be easily seen by users. The program also uses machine learning capabilities to process data such as price of buildings for years to come based on previous data records.

Keywords— *Real Estate Recommendation*

1. INTRODUCTION

For people looking for a new home, the main concern is in place. For that reason, we will use the space database to reward customer for properties This program provides the user with properties for his location pre-installed and get the information accordingly. Location data focuses on location-specific data Location of places the database is used in the location information system. Various examples of local data exist, but an important example of this is satellite imagery. The satellite imagery system also takes the world as a reference system. It is also used in medical thinking, where the human body acts as aircraft reference aircraft framework. The purpose of this project is to improve the quality of the actual building the listing service uses Microsoft technology.

The web application allows the user to register / login and browse properties again the most important thing to handle. Website availability makes that process easily and effectively. The user can register posts, purchases, lease his property and release rate location details. overcoming some real challenges to create a real estate web application. First, the search time should be minimum. This depends on two strategies. Second, the web. The app must have services available for buyer and seller. Third, the web application must have user-friendly interface.

2. RELATED WORK

Real estate is a field that has grown exponentially provided a great access point for many users to find it desirable properties and entrepreneur. Users need appropriate properties and entrepreneurs who contain this. The information assists users with the correct selection of properties. For a large profit this is the concept captures both sides of the parties involved, the mind is on fire. In the beginning, a complete national process it was by hand. But due to the proliferation of Internet resources and due to the popularity of the concept, many websites have it go up that provides architectural information to users. These websites direct the user to various locations as well help the user find the required and available locations just like him his needs. An example of traditional websites
(a) www.99acres.com
(b) www.makaan.com
(c) www.magicbricks.com
(d) www.indiaproperty.com
(e) www.commonfloor.com
(f)

These websites offer features such as search properties, add property and offer alternatives that will be profitable to the user. But even with these factors there is certainty the necessary features that make these areas limited. Of course: 1. No searches provide relevant information about basic services is located in the selected location as a distance display at the nearest bus stop, train station, hospital etc. 2. No. flexibility of access to information e.g. list of houses that is within 2Km radius of a location.

3. EXISTING SYSTEM

The current system has no evidence of fraud and is unsure obstacles. Being a hands-on system is a possible limitation and the gaps in this system are huge. Some of them are: -
The existing system is a computer system that is:
(a) They are stored in each database.
(b) Doesn't support online services like reports.
(c) Most of the information is stored in excel sheets.
(d) Data access is very slow.
(e) Getting one data from a large database is difficult.

4. PROPOSED ALGORITHM

KNN: KNN function will be used in loops where the system will generate matching among a set of data for the user. Where the function is only approximated locally and all computation is deferred until function evaluation. Since this algorithm relies on distance for classification, normalizing the training data can improve its accuracy dramatically. Both for classification and regression, a useful technique can be to assign weights to the contributions of the neighbors, so that the nearer neighbors contribute more to the average than the more distant ones. For example, a common weighting scheme consists in giving each neighbor a weight of 1/d, where the distance to the neighbor. The neighbors are taken from a set of objects for which the class (for k-NN classification) or the object property value (for k-NN regression) is known. This can be thought of as the training set for the algorithm, though no explicit training step is required.

5. METHODOLOGY

Our proposed system provides all the features provided by traditional programs available, but instead of just working with a non-local database, the system works with location data. The program will have the following outstanding Features: - Specification based on search This feature provides user-related information in terms of the information they provided on the website. For example, if a user wants a house for 1bhk for 9 lakhs in Thane, only then those buildings satisfy the above demand will be returned to the user. Agent Alert When the user focuses on a specific area and clicks button "Confirm" email message would do automatically sent to agent in charge of related location, notification of username, his contact number and email address. Adding property for selling A user may add his or her property to the sale to be viewed by other potential clients focused on same material. For this purpose the client must do so include not only location but also photos and costs intends to sell the property. It's informative interested users Whenever new things are added, then email Notification type is automatically sent to all those clients who were interested or looking for a nearby place. We thus inform those users of the discovery of that property. Allowing users to place interesting content available on cart. The cart is a data center added to users. Users will be given an add- on feature to hold buildings in a cart before making a final decision. This can help the user to separate the interesting material receives and thus helps in making final decisions. Providing a user with a map-based search When a specific location is selected the user can obtain the required relevant information on the basis of local features. For example, asking for location information and to obtain information about the regions in the a specific boundary of the area (e.g. 2km wide from Thane Railway station) Based features of existing objects should be made using space for information. Information provides services that help search distance between two points in a local domain. Using this functionality, we can do very well local mines and offer

advanced and soft features to users. The details of the information are slightly related incompetence in these aspects and therefore the use of a local domain it is reflected in the application

5.1 Benefits of the Suggested System

- A program that will allow the user to speed up again easily search for buy and sell items.
- A register user may upload his or her property for sale or lease get out.
- The system is designed and constructed in such a way that tries to overcome every set problem.
- An online system will provide accurate information details about the property that helps view all details of items directly from anywhere.

6. PSEUDO CODE

KNN Algorithm
General outline of neighborhood algorithms input : Number of items to be recommended NEN, Number of neighbors used for ranking k e N, User to recommend items to u, List of all items Items, User-Item matrix of ratings R output: N items to be recommended { for each item e Items do if item & u.rated items then Litem.rank + rank.according.to.nearest_neighbors(k,u, item) descending rank sort(Items) return top(N, Items)
}

7. STRUCTURAL DESIGN

This is the flowchart of Real Estate Recommendation System which shows the flows between the activity of Property Type, Sellers, Registrations, Buyers, Cost. Features of the flowchart of Real Estate Recommendation System are:-

- Admin User can search Property Type, view description of a selected Property Type, add Property Type, update
- Property Type and delete Property Type.
- Its shows the activity flow of editing, adding and updating of Sellers
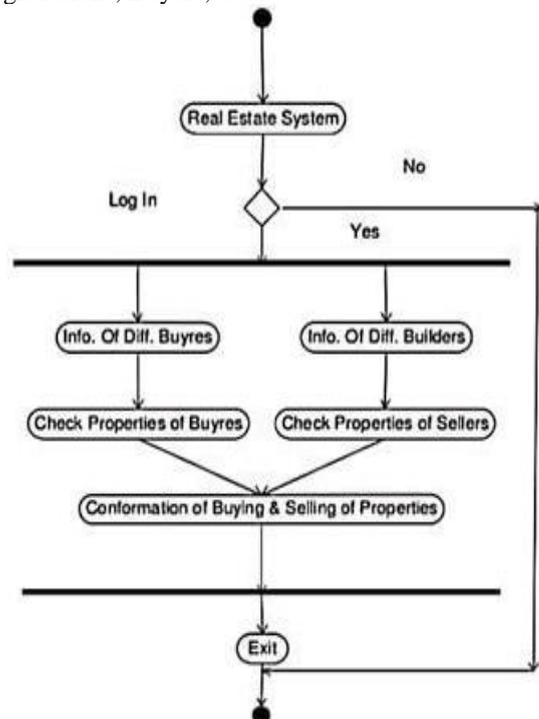- User will be able to search and generate report of Registrations, Buyers, Cost.

Fig. 1: Workflow of Project

8. BUILDING WEB APPLICATION

Web applications deliver content from the server to the customer equipment over the internet and users view the web applications within the web browser. This project uses customer / server construction. Hosted on a web server too responds from other clients, as shown in Figure.
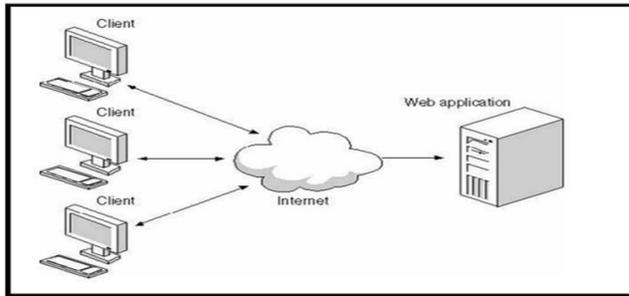

Fig. 2: Application Web Building

8.1 Client and Server

The housing website app works under Microsoft Internet Information Services. IIS manages the project, submit to customer requests and return the feedback builds on portable code, web forms, html page, image files and other content.

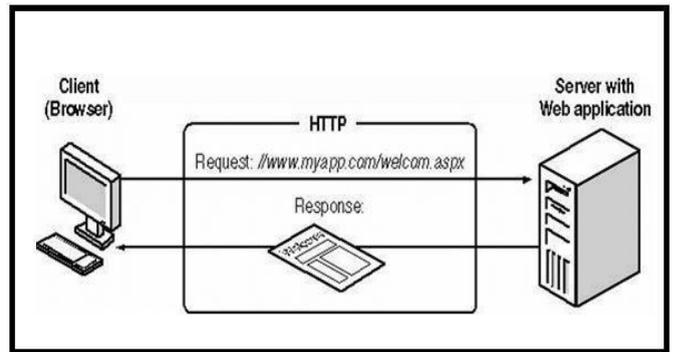These complaints also respond to has passed the Internet using HTTP, as shown in Figure

Fig. 3: Client and Server

9. EXPERIMENTAL STUDY

The test case includes specific variables or conditions, using which a testing engineer can compare expected and actual results to determine whether a software product is functioning as per the requirements of the customer. The following are various test cases scenario:

TEST CASE ANALYSIS

Test Case Name	Test Step	Action	Test Data	Expected Output	Actual Result	Remarks
Launch site and Login	1	Go to https://real estate recommendation system/index.php	Web-page	Page display	Web-Page is Displayed.	Pass
Launch Site and Login	2	Enter a username in the Username field	Test	System Accepts Username	Accepts Username.	Pass
Launch Site and Login	3	Enter a password in the Password field	Xyz	System Accepts Password	Password matched.	Pass
Launch Site and Login	4	Click on the Login button	Web-page	Login button should be Clickable	Successfully logged in.	Pass
Launch Site and Login	5	Verify that the list of properties are shown	Database	All matching properties should be displayed	User is recommended with properties	Pass
#Test Case-2						
Open Admin Setting Page	1	Click on the Settings link on the top of the page	Web-page	Settings link should be displayed and Clickable	Displayed properly.	Pass
Open Admin Setting Page	2	Enter a username in the Username field	Test	System should Accept Username	Accepts admin	Pass
Open Admin Setting Page	3	Enter a password in the password field	Xyz	System should Accept Password	Accepted	Pass
Open Admin Setting Page	4	Click on the Login button	Web-page	Login button should be Clickable	Working	Pass
Open Admin Setting Page	5	Management of user account controls	List of data	Transaction Log	Abled to see list of users.	Pass

10. CONCLUSION

There are a number of other benefits to using property websites for example, one can only look at property with viewing its images and another is presented in a variety of forms options that are not possible in real time The search program has been discontinued to display the result e.g. property such as houses etc. in the form of an image as desired by the user. To show the desired results for the user using the recommendation system using a content-based algorithm that makes it easy to identify a file goods you want to see the customer. Therefore, the Recommendations for web site richness are looking for variety properties according to their needs.

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