

# Real Estate Management System

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**Abstract:** Aim of this project was to develop a real estate web application using Microsoft ASP .NET and SQL 2008. The real estate system Give the functionality for buyers, allowing them to search for houses by features or address. It provides functionality for the seller, authorize them to log into the system and add new advertisements or delete existing ones. For this each user is provided a login account with login ID and password.

**Keywords:** Spatial Database, Information Visualization, Real Estate Information.

## I. INTRODUCTION

Whenever searching is done for a new house, the main focus is on the location. As location being a spatial entity we are using the advantages given by spatial databases for our application. The application provides the user to select any particular location and get information appropriately. Spatial data is data about location and space. Spatial database is used in geographical information system. Different examples of spatial data are existing, but the Important example of spatial database is satellite image. Member should be able to Member should be able to [4]. satellite image earth system will act as a reference system. one more example of spatial database is medical imaging in which human body acts as a spatial frame reference.

The aim of this project is to develop a prototype real estate listing service using Microsoft technology. This is a basic website where user can register then log in and manage their property. This website helps the process and removes the overhead documents. The availability of website makes the process more user friendly and makes it more effective. User can register post, buy, rent their property as well as know the rates of property in an zone.

There are some important issues in developing the real estate web application [8]. First, the search time should be minimum. This depends on 2 techniques. Second, the web application should give the services that both buyer and seller want. Third, the web application should have a friendly user interface.

This project is developed based on the ASP.NET using C# and the SQL 2008 database engine. ASP.NET is part of the Microsoft .NET framework, which is an unsegregated and managed environment for the development and execution of native code. ASP.NET is a platform for produce web applications that run on Windows servers using IIS and the .NET framework.

## II. RELATED WORK

Real Estate is a field that has widely expanded and has provided a huge ground for scope to many users for finding desirable properties and for businessman. The users need appropriate properties and the entrepreneurs who contain this information help the users for accuratet selection of properties. With the immense amount of profitability this concept holds for both the sides of the

parties involved, the idea has caught fire. Initially, the overall real estate process was manual. But due to increasing facilities of Internet and due to the popularity of the concept, many web sites have come up which provide real-estate information to the users. These web sites guide the user through various properties and help the user to find the needed and available estates as per his/her requirements. Example of traditional web sites

1. www.99acres.com
2. www.makaan.com
3. www.magicbricks.com
4. www.indiaproperty.com
5. www.commonfloor.com

These websites provide features like search property, add property and gives different offer which will be beneficial to user. But even with these features there are certain required aspects which make these sites limited. They are:

1. No search gives correct information about basic services available from chosen location like displaying the distance of nearest bus stop, railway station, hospital etc.
2. No flexibility in information retrieval for e.g. listing houses that is within the 2Km radius of alocation.

## III. EXISTING SYSTEM

The present system is not dunce proof and has certain drawbacks. Being a manual system the possible limitations and loopholes in the present system is large. Some of them are:-

### 1.Human resource

The current system has too much manual work from filling a form to filing a document, delivering manifesto. This increases burden on workers but does not yield the results it should.

### 2.Thorny Job

In current system if any modification is to be made it increases manual work and is error prone.

### 3.Error

As the system is managed and maintained by workers errors are some of the possibilities.

## IV. PROPOSED ALGORITHM

We used two different distance functions: one without unstructured text and second with unstructured text and

during our experimentation we found advantage of combining both unstructured and structured data. In First distance function we computed distance by introducing a relative weight factor  $w$ . The normalization of data enables relative importance of some features in datum. For example, while clustering Type of property should be same that is, all "Apartments" are clustered together. So, this importance is done via weights  $w \in [0; 1]$ . As name suggest Fuzzy this distance function computes weights dynamically based on fuzziness. Though there are user defined weights to some features, system computes effective weight based on provided weights and 1-norm distance.

Let us consider weight vector  $W = [w_1; w_2; \dots; w_i]$  then distance between two real-estate listing can be computed as  $d(x; y)$  :

$$d(x; y) = \sum_{i=1}^k w_i x_i y_i + \sum_{j=1}^k w_j x_j y_j \quad (4.1)$$

Where  $x$  and  $y$  are vectors. Since,  $x_j$  is missing feature, above can be re-written as:

$$d(x; y) = \sum_{i=1}^k w_i x_i y_i \quad (4.2)$$

In second distance function, we considered the same distance function and combined it with jaccard distance considering unstructured text

### 1. Proposed System

Our proposed system give all the features provided by the traditional existing systems, but instead of working only with non-spatial database, the system also works with spatial data. The system will have the following prominent features:- Specification based searching This feature provides the related information to the users according to the specification they have provided to the website. For e.g., if a user is looking for a house with 1bhk at 9 lakhs at Thane, then only those properties which satisfy the aforementioned demand will be returned to the user. Agent Notification Once the user is focused in a particular property and clicks the "Confirm" button a mail type message would automatically be sent to the agent who manages the corresponding zone, informing agent about the user's name, his contact number and email address. Adding property for sale A user can add his property that he is willing to sale so that it can be viewed by other potential clients focused in similar property. For this purpose the client is supposed to enter not only the location but also pictures and the cost at which he is willing to sale that property. Notifying interested users Whenever a new stuff is added, then a mail type notification is automatically sent to all those clients who were interested or were searching for a near property. Thereby notifying those users about the availability of that property. Allowing users to put interesting property finds in cart The cart is an added database advantage to the

users. The users would be given the feature of adding gripping properties into a cart before making a final decision. This would help the user to dispartate interesting property finds and thus help in final decision making. Providing user with map based search Once a particular area is selected the user can gain needed related information on the basis of geographical factors.

For example, requesting information of a particular zone and getting information about regions which lie in a particular boundary of that zone (e.g. In the radius of 2km from Thane Railway station) The features that are based upon geographical factors have to be execute using spatial databases. Spatial databases provide functions that help in searching distance between two points in a spatial domain. Using these functionalities, we can very efficiently perform spatial mining and give the advance and malleable features to the users. The relational databases prove to be slightly unskilful in these aspects and thus the use of spatial domain is evident in the application.

### 1.1 Advantages Of Proposed System

1. The System Which Will allow the user to quickly and easily search a property for buy and Sell.
2. The register user can upload his property for sale or rent out.
3. The System is design and developed in such way that it tries to overcome all the prescribe problem.
4. The system being an online system will give accurate information regarding the property which helps to view all the stuff information directly from anywhere

### V. PSEUDO CODE

ALGORITHM 1 WEIGHTED CLUSTERING WITH INDIVIDUAL FEATURE THRESH-OLD

STEPS-:

1. Let  $C_1::C_k$  be initial canopy centres (randomly choose)
2. For each canopy  $C_1::C_k$  lets define two threshold  $\delta_1$  and  $\delta_2$  also  $\delta_1 > \delta_2$ .
3. Divide features into  $F_s$  and  $F_m$
4. For each point in  $C_x$
5.  $d(x,y) = \sum_{i=1}^k w_i |x_i - y_i|$  if  $\delta_2 < d(x,y) < \delta_1$  Mark this point as canopy centre
6. Repeat Steps 5 until we compute set data in overlapping canopies

### VI. ARCHITECTURE DESIGN

#### BUILDING WEB APPLICATION IN .NET

Web applications give to content from a server to client machines over the internet and the users view the web applications between a web browser. This project uses client/server architecture. It is hosted on the web server and responds from other clients, as shown in Figure.

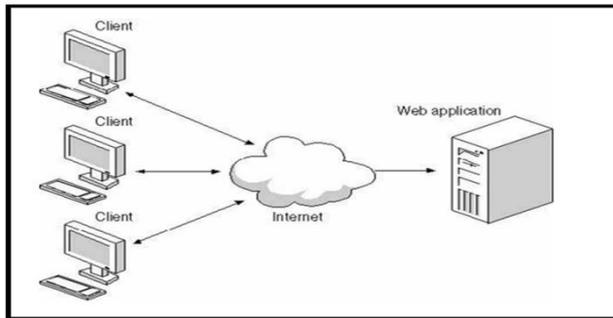


Fig No 1 Building Web Application in .NET

**Client and Server**

The real estate website application runs under Microsoft Internet Information Services. IIS manages the project, move to the requests from the clients and returns the response build on executable code, web forms, html page, image files and other content. These appeal and responds as passed over internet using HTTP, as show in Figure

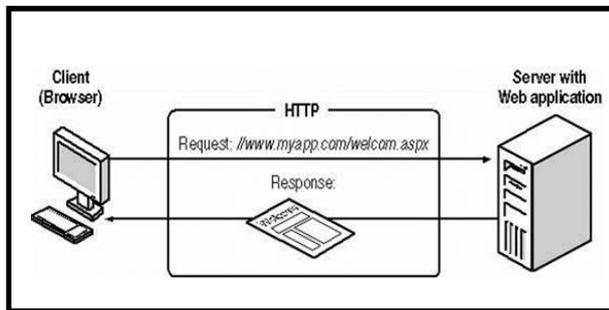


Fig No 2 Client and Server

**VII. ANALAYSIS OF SYSTEM**

SR.NO	EVENT	TRIGGER	SOURCE	ACTIVITY	RESPONSE	DESTINATION
1	User want to register	User registered	User	To register for the further step	Now verified user can login himself	User
2	User want to log in	User logged in	User	Now User can deal with his propertys	User can go through various activities	User
3	Administrator want to view the users info	View Users detail	Administrator	To view the detail of the Registered user	View information of each user	User
4	User want to register an estate	Registering An estate	User	To enter Detail	Detail will Be stored Into database	User
5	administrator want to update user profile	Update	Administrator	Add new details or if changes in detail	To do changes	User
6	Agent want to check requirement	Checking for result	Agent	Result available in the database	Result availability	Agent

**VIII. SPECIFCATION**

**Software Specification:-**

1. ASP.Net
2. C#
3. Visual Studio
4. SQL Server

**Hardware Specification:-**

PROCESSOR - Intel Pentium II , Intel Pentium III. Pentium IV or higher  
Operating System- Microsoft windows XP, Vista or higher  
Browser Mozilla firefox Google Chrome , Internet Explore ,

**IX. SIMULATION RESULTS**

The developed system is very user friendly, so any kind of user can handle our system, which has normal previous knowledge of the computer. But if the feel any kind of problem the can contact with the system manager and solve the problem easily.

## X. CONCLUSION AND FUTURE WORK

This Real Estate Web Application is a typical .NET web application using ASP.NET and SQL 2008 in the C# programming language. It uses a client/server architecture based on the HTTP protocol. It is developed in Microsoft's Visual Studio .NET programming environment. Some ways in which this system could be enhanced with additional functionalities have been discussed. Whereas this system was developed using Visual Studio .NET 2010, a future version might use the newer 2015 version (currently still in beta testing), which provides an object-oriented domain model. Future- we provide the user with drop down selection box to select "City", "Cost range", "BHK" and we provide two option buttons for the user to select whether he/she wants to buy or rent that property.

**Map based search** Here the user is provided with three drop down selection boxes to, select the region where he wants to re-centre the map, to select what kind of properties (Buy/Rent) to be displayed on the map and to select the kilometer radius for search, respectively.

**Reena Chaudhari**-- Prof. Reena Chaudhari now currently working as Assistant professor in Computer dept. SSJCOE Dombivli

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