## horizontal line

House Bid

## **Project WS 2017 (Milestone 1)**

**Team Number: 20**

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**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 31/10/2017 | 0.1 | First draft | Farrukh, Saad |
| 1/11/2017 | 0.2 | Update | Farzaneh, Imam, Vijay, Farrukh, Saad |
| 3/11/2017 | 0.2 | Feedback from Prof. Dr. Todtenhöfer |  |
| 6/11/2017 | 0.3 | Review | Farzaneh, Imam, Vijay, Saad |
| 6/11/2017 | 0.4 | Review | Farzaneh |

# SUMMARY

In this modern era, everyone wants to buy and sell things online. It saves time as well as effort that one has to put for selling and buying. After enormous efforts, our talented team has built this useful and unique website “**House Bid**”. We connect buyers and owners with our agents across the country, We are quickly becoming a central hub in dealing with real estates in the country, one that everyone can use effortlessly with our user-friendly web interface. We bring to our users only the most useful and innovative of features - as bidding which will be done by customers to deal with properties. It will create more chances for customers that specific property will be sold by better price. This web application has features about adaptability and scalability about future perspectives i.e. it can be modified based on the new requirements.

# USECASES

**John wants to buy the house:**

John is new in town and would like to find a suitable house, He logs into our website and then browses for the houses he’s interested in and contact the respective real estate agent via our website.

**Smith wants to sell his house:**

Smith is an real estate agent who is planning to expand his reach through internet, He uses our website to achieve that by logging in as a registered Real estate agent who will get requests for potential sellers willing to sell their properties via the agent. He will be able to accept requests from sellers and negotiate with the buyer requests.

**Jane Doe lets buyers bid for her house:**

Jane Doe is planning to sell her house, she is not sure about the market value so she approached Mr. Smith who is an registered agent with our website. He will post her listing and will give an option to the buyers to bid for the listing. With this feature Mr Smith will be able to quote the best selling price for her house among all the bids he received via the website.

# DATA DEFINITION

Currently, we are in planning phase of our project. As a result, following data terms defined may not be limited and other terms may be introduced.

**Property:**

**Categories**: “House Bid” differentiates any type of property as “Buy” or “Sale”.

**Fields**: A property comprises of the mandatory and optional fields. Following are some of the fields : Type, location (name, street, city), area, unit, furnished.

**Types**: A property in “House Bid” can be differentiated based on the type. Following is the list of types which may be updated as the project enters in development phase: House, Plot, Flat, Office Space.

**Status**: Every post has a status e.g. for Sale and Expired....

**Buyer, Seller and Listing Agent:**

**Listing**: Real estate agents refer to property for sale as “listing”. A “listing” on “House Bid” shows information about the home, like the price, number of rooms etc.

**Listing Agent:** This is an agency which represents the property seller.

**Buyer:** This a person who is candidate for buying a property.

**Seller:** This is an entity, who may be the owner of the property or the person to contact for the property which is to be sold via one of the agents available on “House Bid”.

**Bid:** Once you as a “Buyer” find the right property, you can bid for that property if the option is available by Listing Agent.

**Message:**

A “Buyer” can communicate with the agents to further seize the deal by sending a personal message on the site.

# FUNCTIONAL REQUIREMENT

**1- Searching/Filtering Listings**

Listings of properties can be filtered by some items like: city, location, size, price,... It can be done by customers (registered users) and users (website visitors who are not registered yet). Obviously, users have limited access to details of properties and can not buy it or contact Agents.

**2- Customer Registration**

Potential users who are willing to do buy properties via the website can become customers by providing some details about themselves: Fullname, email for username, password, photo, etc. Subsequently, they will be able to see more details of listings and contacts agent to buy properties.

**3- To Post Listing**

Agents can post their listing of properties with some useful details to be searched. For example: city, location, size, price, photo,...

**4- To Contact Agents**

Customers contact existing Agents if they have a property to sell in order to provide required details of the property, to ask questions , or to set appointments.

**5- To Contact Customers**

Agents are able to contact interested customers for posted properties and manage the status of properties if it is sold or deactivated,...

**6- To Buy a Property**

Customers can select a property to buy. The payment process will be done between the agent and customer not through website. Afterwards, the status of property can be changed by the agent.

**7- Bidding**

Agents choose some properties for bidding. In a specific period of time the chosen properties can receives bids. At the end, the Agent will choose a bidder to buy the property.

# NON-FUNCTIONAL REQUIREMENT

Non-functional requirements play an important role in any kind of project. They tell us about the non-functional behaviour of product that is either software is extendible according to new requirements or it is secured one. There are some major non-functional requirements which are present in our project.

**Performance:**

Performance is a big factor while building a software because software should be excellent performance wise. For example Response Time, Throughput etc. Our web application is fast and responsive in this regard and throughput is also according to needs. You can use it with ease.

**Scalability:**

Every software grows with the passage of time. More users interact with web application that means web application should be extendible when it is using by many users and data is flowing heavily. We have created our web application more scalable and adjustable when new users are using it. It can manage the huge amount of data flow because architecture is quite manageable in our product.

**Capacity:**

Capacity management is a process used to manage IT. Its primary goal is to ensure that IT resources are right-sized to meet current and future business requirements in a cost-effective manner. Our product is more oriented towards cost-effective product that is it is manageable in any budget resources.

**Reliability:**  
 This web application is designed to have very simple **database** just to cater the exact need of real estate management. It is and it will be tested for all the constraints at development stage.

**Security:**   
 Our web application takes advantage of SSL to make a secure connection between browser and the server. Also, the web application is provided with authentication without which no user can pass, so only the customers are allowed to form contact with the agents. We also have implemented “two-way encryption” for protect our customer’s privacy. By this, we guarantee that no one has access to the profile except that customer.

**Availability:**  
 The website will be hosted by AWS which will be available 24/7. From all over the world, via any browsers users are able to use it.

**Maintainability:**  
 Maintainability depends on the user or the owners need. Also, There will be no maintenance required after the completion of the web application, the database will be provided by the end-user and therefore will be used by this user.

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**COMPARISON**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Website** | **Buy** | **Bidding** | **Agents** | **Sell** |
| **HouseBid** | index.png | index.png | index.png | index.png |
| [**Zameen.com.pk**](https://www.zameen.com/) | index.png | x-wrong-no-cross-hi.png | index.png | index.png |
| [**Realestate.com.au**](https://www.realestate.com.au/) | index.png | x-wrong-no-cross-hi.png | index.png | index.png |
| [**Zillow.com**](https://www.zillow.com/) | index.png | x-wrong-no-cross-hi.png | index.png | index.png |

**SYSTEM ARCHITECTURE**

**Front End:**

**Technologies**

1. HTML
2. JavaScript
3. Bootstrap
4. Jquery
5. CSS
6. SASS
7. GULP
8. Modernizr

**Supported Browsers**

1. Chrome
2. Mozilla Firefox
3. Safari
4. Mobile Browsers

**Back End:**

**API**

1. Node.js
2. Express.js
3. Hapi.js (to be decided)

**Database**

1. MySQL Database

**Automation, Testing and Debugging**

1. Mocha / chai (Testing)
2. Npm (Automation and Debugging)

**Server**

1. Amazon Web Server

**TEAM**

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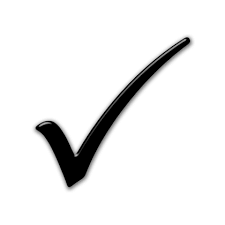
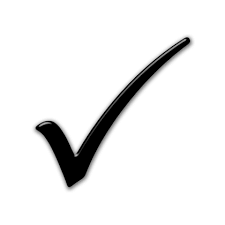
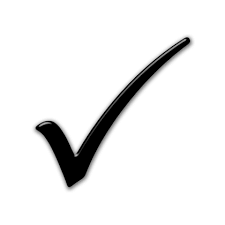
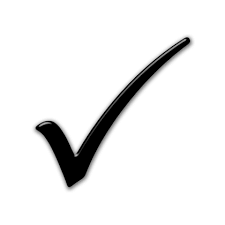
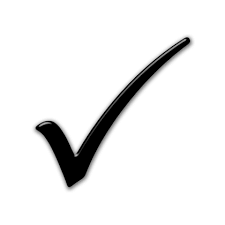
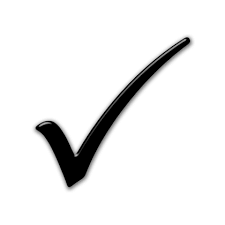
FARRUKH AHMED KHAN | FRONT-END DEVELOPER

Skills: HTML, XML, JSON, JavaScript, Jquery, Angular JS, Angular Material, Bootstrap.

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**CHECKLIST**

* Team decided on basic means of communications 
* Team found a time slot to meet outside of the class 
* Front and back end team leads chosen 
* Github master chosen 
* Team ready,able to use the chosen back and front end frameworks 
* Skills of each team member defined and known to all 
* Team lead ensured that all team members read the final M1 and agree/understand it before submission 