

# **BUILD PRO -BUILDING ESTIMATION TRACKER SYSTEM**

## **Introduction :-**

Advanced cost estimation system for building construction (Build Pro) is a very useful application for common people who are zero level to intermediate level knowledge on building construction and cost estimation calculation. To some extend even a building contractor also use this application for calculating the cost for developing a new house or a building accurately. The final cost estimation result will give the estimated cost of the materials used for build a

house or building .when the user gave the sq.ft of house or building the system display the materials needed and its estimation cost also. Using the proposed application each user can create as many as building or home that they wanted to find out the estimated building cost.

## **Objectives:-**

- \*To provide a detailed and itemized cost estimate for the entire construction project.

- \*The system calculate the cost instantly.

- \*It is an user-friendly web application.

- \*The user can view the different materials or the product and their price used to build a house or building.

- \*The user who have no knowledge about the building construction can also use this application

- \*The admin can add,delete,edit the material and fix the price also

## **Tools/platform :-**

The following requirements are only the minimal requirements to run this utility more successfully and efficiently, there should be sufficient memory and software tools for efficient processing .

### **HARDWARE SPECIFICATION: -**

Processor : i3 or above

Speed : 2.2 GHz

Hard Disk : 1 TB

Key Board : standard Window key Board RAM

:2GB

### **SOFTWARE SPECIFICATION:-**

OS : Os independent (javascript runtime)

Front End : React JS,css(Tailwind)

Back End : Node.js

Database : MongoDB

IDE : visual studio code

## **Problem Definition:-**

In the modern era, builders and common people faces lots of challenges in the construction of houses or buildings to compete the world in the form that how to make a modern house or building which is environmental friendly, energy saving and lowcost etc. such sort of problems puts pressure on builders. Because of the rising cost of the material which is used in traditional construction methods which are unlikely to meet the demands for future developments. Estimation is one of the four core components of project cost management and an integral part of the budgeting process. The importance of cost estimation is

hard to overrate without adequate estimates, its impossible to allocate and utilize funds properly and ensure that the team won't experience cost overruns at some point throughout the course of project realization. Overall, estimation is a significant pre-requisite of a project's longterm financial health, and it is essential to invest enough effort in performing this practice the right way. Since there is no other system available to calculate the cost of building construction, builders and users face lot of problems like debts, corruption, waste of resources etc.

## **Initial Requirements:-**

The major purpose of BUILD PRO is to implement the computerization of estimation in building construction. The users can easily find their rate that is required for constructing a building. The website has a user-friendly environment, that everyone can use it easily. Also, it provides the user from fake estimation rates given by the contractors.

There will be an administrative section, the role of administrator is configuring the expense for each material, and for each material there will be a cost range. This will help the user to get an idea of total cost variation by using priced materials. And also administrator will manage the basic building materials like sand, cement, metal chips, iron bar etc. The role of the user to select the material needed to build the house or building. when the user doesnot know the materials the user have the option to gave the sq.ft of the building ,then the user can show the material needed to build his house and the estimation cost

## **Basic Functionalities Of The Project: -**

- 1.Administrator(Admin)
- 2.User
- 3.Cost Estimation

## 1.ADMIN:-

- \* Login
- \*Add items and cost
- \*Mange items and their cost
- \*Upload items image

## 2.USER

- \* Register
- \* Login
- \* View the materials used for building construction
- \* Selection of essential materials needed to building construction
- \*View User Profile
- \*Edit User Profile
- \*Enter the sq.ft of Building
- \*View material quantity and Estimation cost

## 3.COST ESTIMATION

- \* Construction cost Estimation