

BUILDNEST

CONSTRUCTION PROJECT MANAGEMENT SYSTEM

Proposed By : Amal Jose Kurian

Guide : Mr. Rony Tom

Class : S3 RMCA A

Roll No 14

BUILDNEST

TOPIC: Construction Project Management

Abstract

Modern Construction sector has evolved in a delicate expansion of project management through successful execution of projects and infrastructures. An efficient project management is required for the betterment of mainstream establishments and new ventures.

This abstract presents a comprehensive overview of a construction project management application designed to refine and enhance the project oversight included in building projects. The web application aims to address the challenges of communication, coordination and progress tracking faced by construction professionals. This system comprises four distinct modules Project Admin, Contractors, Clients and Purchase managers.

Key Features

- User Registration and Authentication
- Labor Management
- Progress Monitoring
- E-Commerce Capabilities
- Responsive User Interface
- Profile Updation

Users

- Admin
- Clients
- Contractors
- Purchase Manager

Module-wise Functionalities

Admin:

- **User Management:**
User Registration and Login
Monitoring and managing other user accounts
- **Site Management**
Listing of Active Construction Sites
Uploading Building permits and sanctions
- **Authorization**
Manage reports from Contractors
Authorizing for Construction (Approval or Reject)

Clients:

- **User Management**
User Registration and Login
Updating Profile
- **Setting up Preferences**
Choosing their interests about type of buildings
- **Dashboard and Analytics**
Progress of Tasks
Milestones Completed
Budget Calculation

Contractors:

- **User Management**
User Registration and Login
Basic Details
- **Labor Management**
Details of Worker
Schedule Tasks and Instructions
- **Salary Distribution**
- **Weekly report to Admin**

Purchase Manager:

- **User Management**
User Registration and Login
- **Inventory Control**
Ordering Raw materials
Check and Updates Inventory
- **Transactions**
Secure and timely Payments

Mini Project: Construction Project Management

Modules

Admin

- User Management
- Monitoring other user accounts

Clients

- User Management
- Updating Profile

Contractors

- User Management
- Labor Management

Purchase Manager

- User Management
- Check and Updates Inventory

Main Project: Construction Project Management

Modules

Admin

- Authorizing Requests
- Manage Reports

Clients

- Setting up Preferences
- Dashboard Analysis

Contractors

- Salary Distribution
- Weekly Report to Admin

Purchase Manager

- Ordering Raw Materials
- Payments

Additional Technologies

- Augmented Reality (prototype building)
- Chatbots
- Report Generator

Software Specification

- Frontend: HTML, CSS, JavaScript
- Backend: Python Django

