Sipna Shikshan Prasarak Mandal's

SIPNA COLLEGE OF ENGINEERING & TECHNOLOGY, AMRAVATI

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SIPNA COLLEGE OF ENGINEERING & TECHNOLOGY

AMRAVATI.

Department of **Computer Science**

Academic Year : 2023-2024

Semester : Sixth

A PROJECT REPORT ON

EaseConstruct : A Collaboration Hub

Submitted for

SOFTWARE ENGINEERING

Submitted in

APRIL 2024

Under The Guidance Of

Prof. R. Popli

SIPNA COLLEGE OF ENGINEERING & TECHNOLOGY, AMRAVATI

CERTIFICATE

This is to certify that this mini project report entitled

“ EaseConstruct : A Collaboration Hub ”

has been completed by the following students in the partial fulfillment of project work of the fifth semester, Department of Computer Science and Engineering, During the Academic Session of 2023-2024. This is the record of their work under my guidance and to my immense satisfaction.

Date : / / 2024

Prof. R. Popli

Project Guide

ACKNOWLEDGEMENT

We take this opportunity to express our deep sense of gratitude and hearted thanks to our project guide **Prof. R. Popli** for her invaluable guidance, inspiration and encouragement. It is because of her that we could synchronize our efforts. We also express our sincere thanks to our Head of Department **Dr. V.K. Shandilya** and Principal **Dr. Sanjay M. Kherde** for their tremendous support, encouragement and invaluable guidance throughout our project. We shall be failing in our duties until and unless we express our sincere thanks to all the faculty members, both teaching and non-teaching Staff, and our friends who have directly or indirectly contributed of our project work.

Group members:

1. MANISH DHAYE

2. MANDAR CHATUR

3. ANUSHKA TAYDE

4. MONIKA RATHOD

SIPNA C.O.E.T., Amravati.

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Abstract

Creating an interactive online platform for interior design enthusiasts, professionals, and homeowners to seamlessly collaborate, share ideas, and access a diverse range of design resources. The required software is easily available and easy to work with. This web application can maintain and view computerized records without getting redundant entries. The project describes how to manage user data for good performance and provide better services for the client.

Introduction

Despite the increasing demand for new homes and construction projects, individuals often encounter challenges when navigating the fragmented and complex process of home building. Existing platforms and resources lack cohesion and fail to provide a streamlined experience, leaving users overwhelmed and frustrated. As a result, there is a pressing need for an integrated online platform that consolidates all three pillars of the construction process – design, procurement, and construction – into one convenient location. This web application is reduced as much as possible to avoid errors while entering data. It also provides error message while entering invalid data. It is user-friendly as no formal knowledge is required to use the system. Human resource challenges are faced by every organization which has to be overcome by the organization.

Description Of Software Using SDLC Phases

1) Requirement Phase :

- **Problem Statement :-**

  Creating an **interactive online platform** for **interior design enthusiasts, professionals, and homeowners** to seamlessly collaborate, share ideas, and access a diverse range of design resources.

  This **platform aims to revolutionize the interior design industry** by providing personalized design solutions, facilitating efficient communication between designers and clients, and integrating innovative features to enhance user experience and satisfaction.

- **Objectives Of Software :-**

Enhanced User Experience: Offer a user-friendly interface that allows users to explore a wide range of interior design catalogs, styles, and ideas easily.

Diverse Design Options: Provide access to a vast variety of interior design concepts, ranging from modern and contemporary to traditional and eclectic, ensuring users can find designs that suit their preferences.

Facilitate Collaboration: Enable users to collaborate with interior designers, architects, and other professionals to

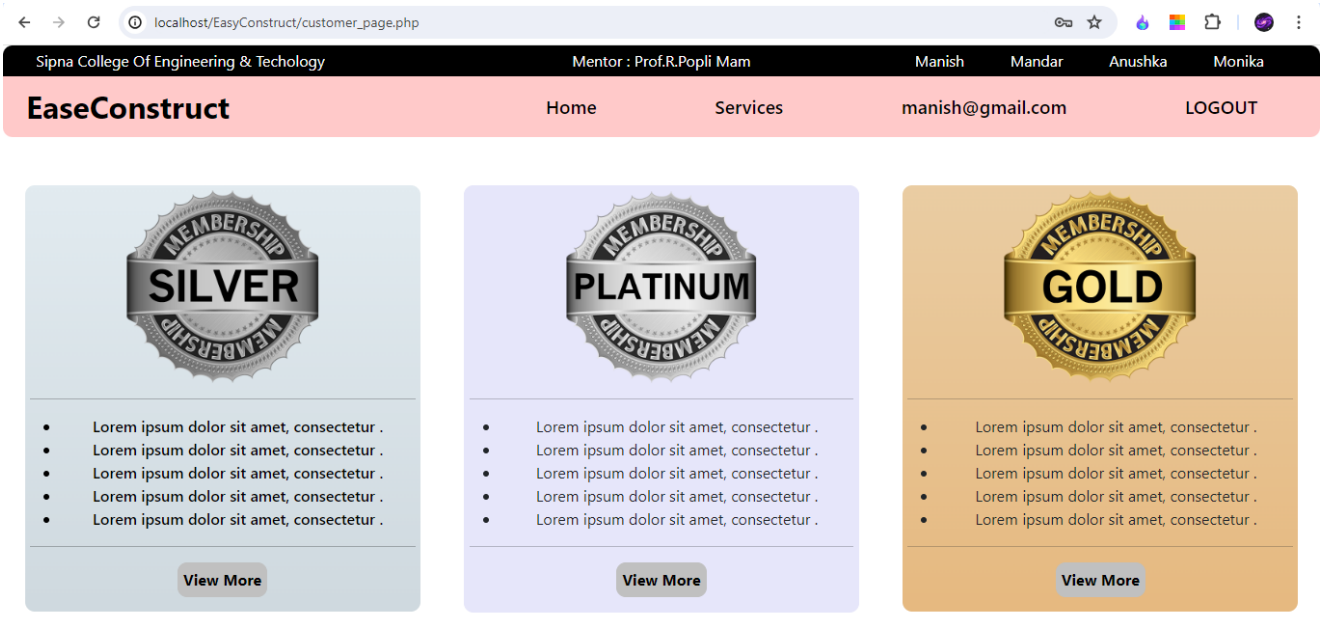
personalize design plans, receive expert advice, and make informed decisions about their home decor projects.

Streamlined Business Processes: Empower interior designers to showcase their portfolios, highlight their expertise, and attract potential clients through the platform. This includes sharing work samples, project histories, and client testimonials to build credibility and trust.

Efficient Communication: Foster seamless communication channels between designers and clients, allowing for effective exchange of ideas, feedback, and project updates throughout the design process.

By achieving these objectives, the online interior design platform aims to revolutionize the way users conceptualize, plan, and execute their home decor projects while empowering designers to expand their businesses and reach a broader audience in the digital landscape.

Additionally, **Implementing A Subscription Model** tailored for designers will categorize them according to their work experience, seniority, and excellence into distinct categories. This subscription model will not only provide designers with enhanced visibility and credibility but also offer clients the flexibility to choose from a curated selection of designers that align with their specific project requirements and preferences.



2) Analysis Phase :

Certainly, here are some potential risks associated with the development and implementation of the interior design platform:

Market Competition: The interior design industry is highly competitive, with several established players and emerging startups. There's a risk of facing intense competition from existing online platforms and new entrants offering similar services.

User Adoption: Ensuring user adoption and engagement can be challenging, especially during the initial stages of the platform launch. There's a risk that users may not find the platform intuitive or compelling enough to use regularly.

Technical Challenges: Developing a robust and scalable online platform requires expertise in various technologies and frameworks. Technical challenges such as system crashes, data breaches, or performance issues could impact user experience and undermine trust in the platform.

Data Security and Privacy: Handling sensitive user data, including personal information and design preferences, raises concerns about data security and privacy. A data breach or privacy violation could lead to legal repercussions and damage the platform's reputation.

Subscription Model Acceptance: The success of the subscription model relies on designers' willingness to subscribe and clients' willingness to pay for premium design services.

Quality of Designers: Categorizing designers based on their work experience, seniority, and excellence requires careful evaluation and

verification processes. There's a risk of misrepresentation or inconsistency in the quality of designers available on the platform.

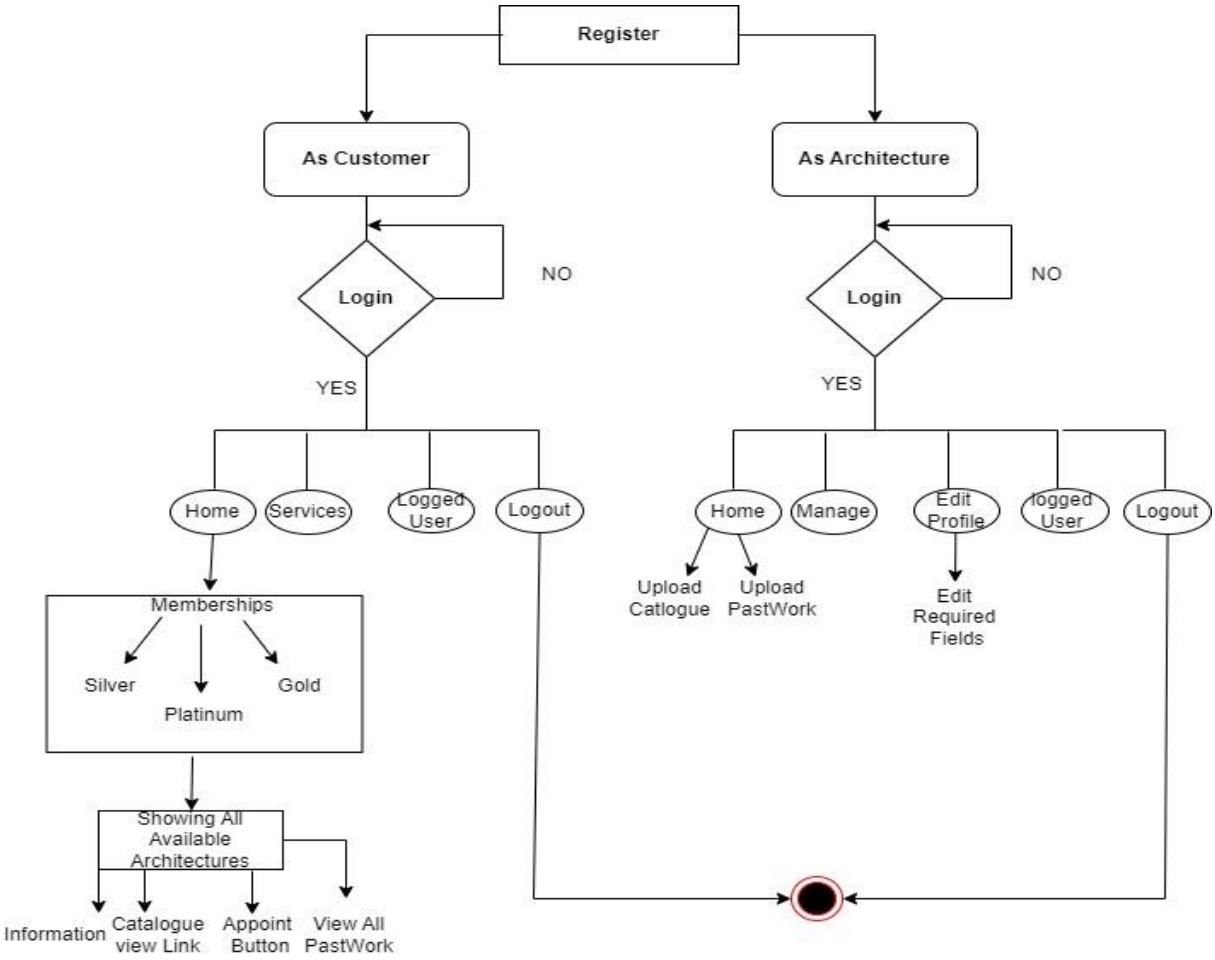
Platform Usability and Performance: Poor user interface design, slow loading times, or navigation difficulties can deter users from engaging with the platform. Ensuring seamless usability and optimal performance across different devices and internet connections is crucial for user satisfaction.

Regulatory Compliance: Compliance with regulations related to data protection, intellectual property rights, and online transactions is essential to avoid legal liabilities. Failure to adhere to regulatory requirements could result in fines, lawsuits, or reputational damage.

Dependency on Third-party Providers: Reliance on third-party services for hosting, payment processing, or data storage introduces a dependency risk. Issues with third-party providers, such as service outages or changes in terms of service, could disrupt platform operations.

Addressing these risks requires proactive risk management strategies, including thorough market research, robust cybersecurity measures, continuous user feedback, compliance audits, and agile development practices. By identifying and mitigating potential risks early in the project lifecycle, the interior design platform can increase itschances of success and achieve its objectives effectively.

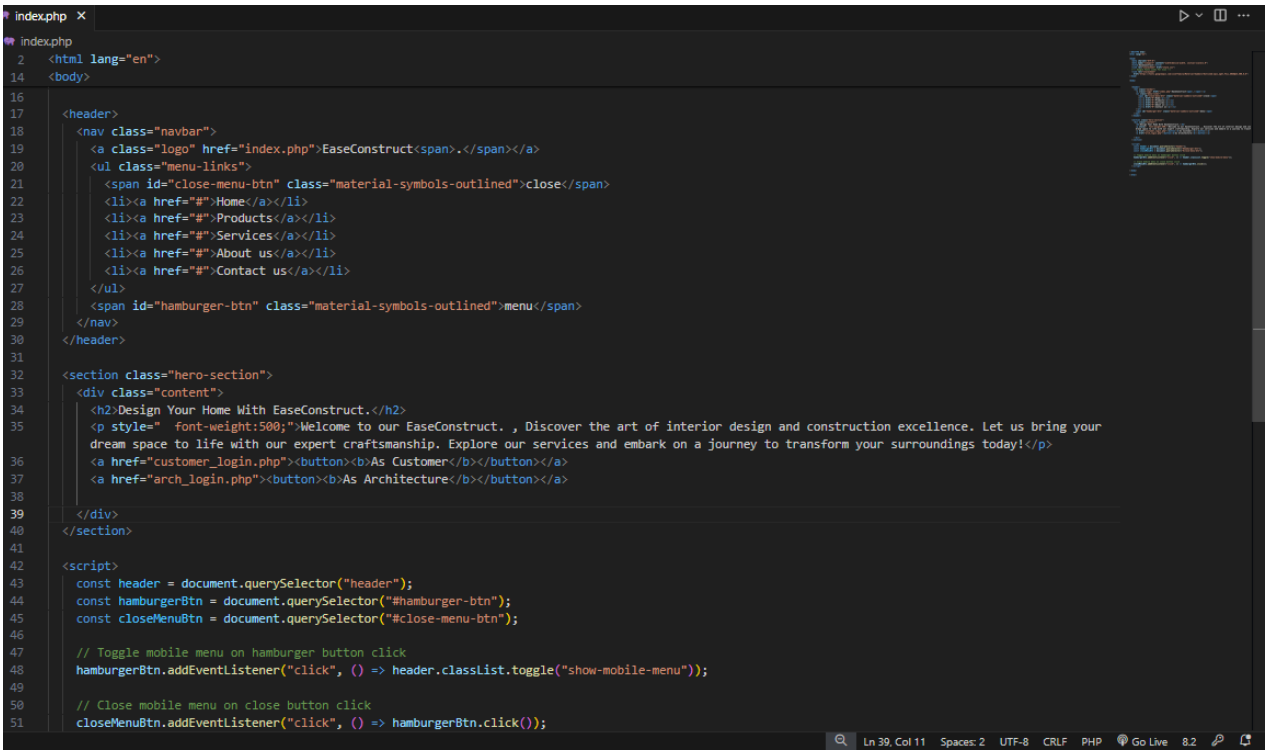
3)Design Phase :



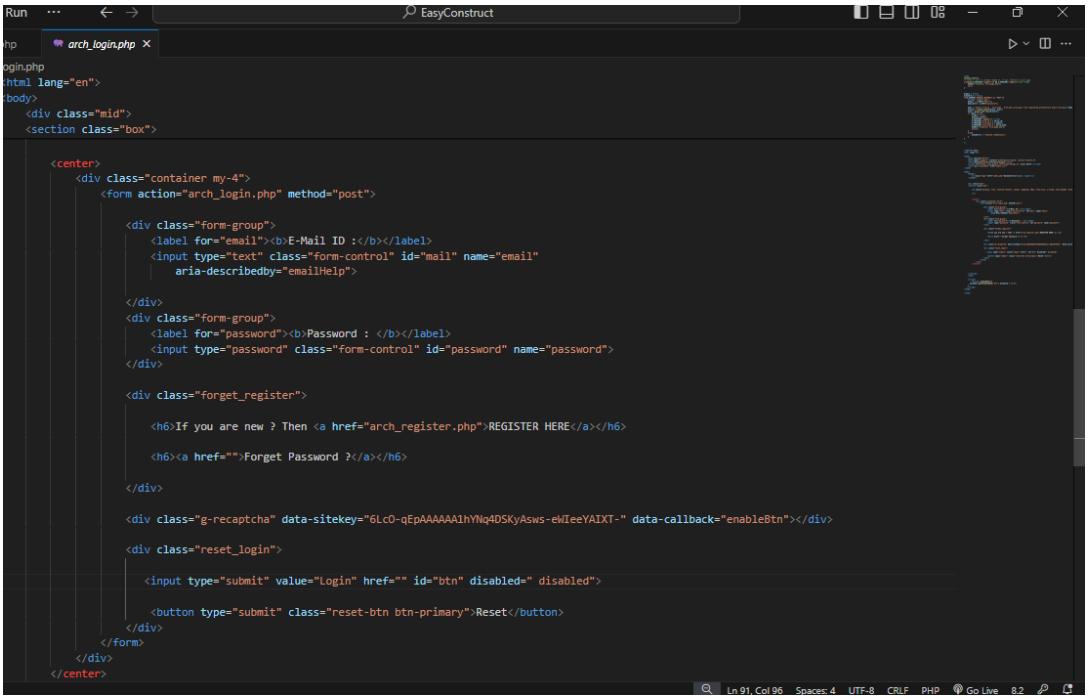
4) Coding Phase :

During the code phase, we implemented the designed system using appropriate programming languages and frameworks. The development process involved:

- **Front-end development:** Writing HTML, CSS, and JavaScript code for the user interface.
- **Back-end development:** Implementing server-side logic using technologies like PHP .
- **Database implementation:** Creating and configuring the database using MySQL.
- **Integration:** Integrating various modules and components to ensure seamless functionality.



```php
<?php
session_start();
// Check if user is already logged in, if yes, redirect to user page
if(isset($_SESSION["loggedin"]) && $_SESSION["loggedin"] === true){
    header("location: arch_page.php");
    exit;
}


$login = false;
$showError = false;
if($_SERVER["REQUEST_METHOD"] == "POST"){
    include 'connect.php';
    $email = $_POST["email"];
    $password = $_POST["password"];

    $sql = "Select arch_id , arch_name , arch_mail,arch_pass from registered_architecture where arch_mail='$email' AND arch_pass='$password'";
    $result = mysqli_query($conn, $sql);
    $num = mysqli_num_rows($result);
    if ($num == 1){
        $login = true;
        session_start();
        $_SESSION['loggedin'] = true;
        $_SESSION['arch_id'] = $arch_id;
        $_SESSION['arch_mail'] = $email;
        $_SESSION['arch_name'] = $arch_name;
        header("location: arch_page.php");
        exit();
    }
    else{
        $showError = "Invalid Credentials";
    }
}
```



```php
<!DOCTYPE html>
<html lang="en">
<body>
    <div class="mid">
    <section class="box">

        <center>
            <div class="container my-4">
                <form action="arch_login.php" method="post">

                    <div class="form-group">
                        <label for="email"><b>E-Mail ID :</b></label>
                        <input type="text" class="form-control" id="mail" name="email"
                            aria-describedby="emailHelp">

                    </div>
                    <div class="form-group">
                        <label for="password"><b>Password : </b></label>
                        <input type="password" class="form-control" id="password" name="password">
                    </div>

                    <div class="forget_register">

                        <h6>If you are new ? Then <a href="arch_register.php">REGISTER HERE</a></h6>

                        <h6><a href="">Forget Password ?</a></h6>

                    </div>

                    <div class="g-recaptcha" data-sitekey="6LcO-qEpAAAAAA1hYNq4DSKyAsws-eWIeeYAIXT-" data-callback="enableBtn"></div>

                    <div class="reset_login">

                        <input type="submit" value="Login" href="" id="btn" disabled=" disabled">

                        <button type="submit" class="reset-btn btn-primary">Reset</button>
                    </div>
                </form>
            </div>
        </center>
```

```php
<?php

$conn = mysqli_connect('localhost', 'root' ,'', 'easeconstruct');

if(!$conn)
{
    echo 'Error';
}

?>
```

index.php | arch_register.php

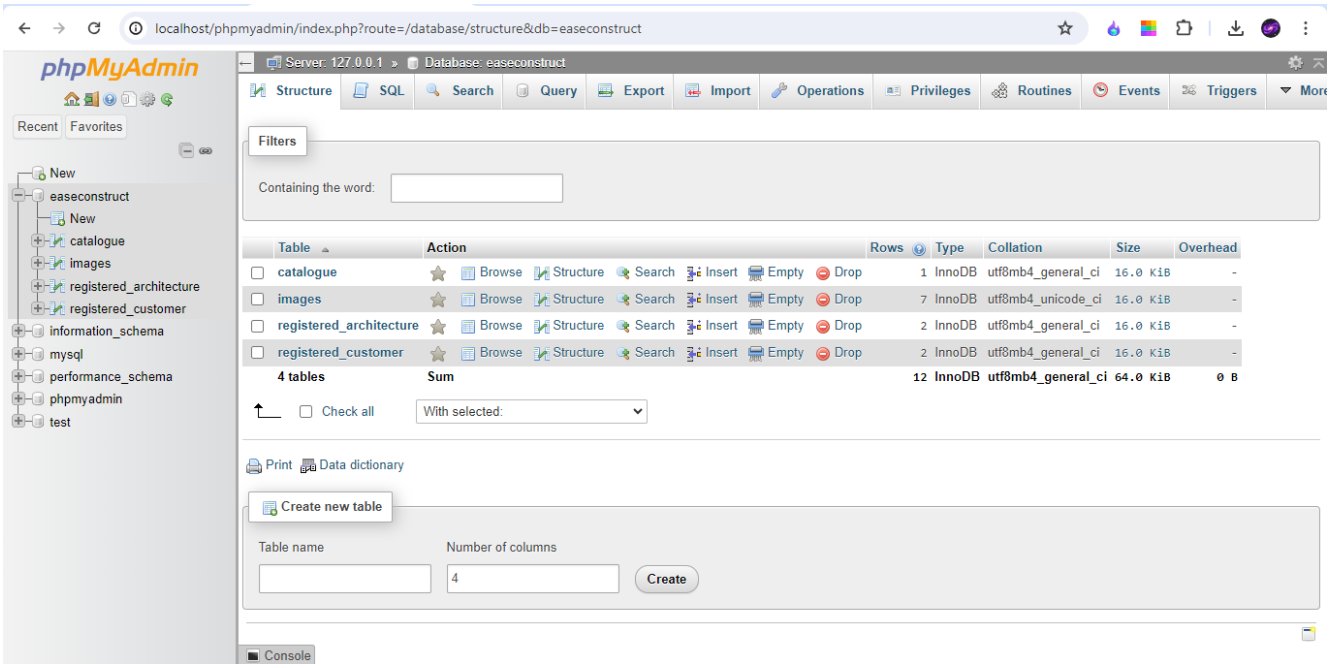
arch_register.php

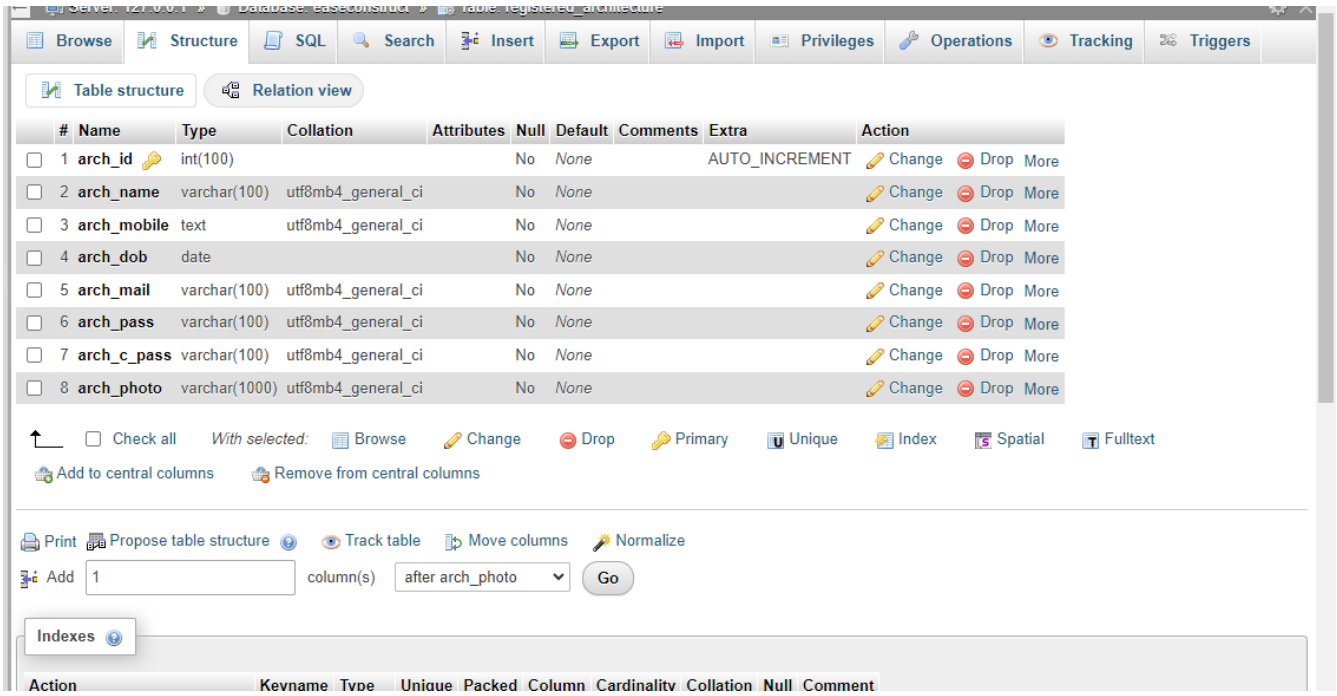
```php
$showAlert = false;

if (isset($_POST["submit"]))
{

    include 'connect.php';


    $name = $_POST["name"];
    $mobile_no = $_POST["mobile_no"];
    $dob = $_POST["dob"];
    $mail = $_POST["mail"];
    $password = $_POST["password"];
    $c_password = $_POST["c_password"];


    $photo = rand(1000,10000)."-".$_FILES["file"]["name"];

    #temporary file name to store file
    $tname = $_FILES["file"]["tmp_name"];

     #upload directory path
$uploads_dir = 'C:\xampp\htdocs\EasyConstruct\Architecture_Photo';

    #TO move the uploaded file to specific location
    move_uploaded_file($tname, $uploads_dir.'/'.$photo);


    $exists=false;
    if(($password == $c_password) && $exists==false){
        $sql = "INSERT INTO `registered_architecture` ( `arch_name`, `arch_mobile`,`arch_dob`,`arch_mail`,`arch_pass`, `arch_c_pass`,`arch_photo`) VALUES

        $result = mysqli_query($conn, $sql);

        if ($result){
            $showAlert = true;
        }
    }
    else{
        $showError = "Passwords do not match";
```

index.php | arch_register.php

arch_register.php

```php
<html lang="en">
<body>
    <div class="mid">
        <section class="box">
                Architecture's Registration Form</h2>

            <hr>

            <center>
                <div class="container my-4">
                    <form action="arch_register.php" method="post" enctype="multipart/form-data">

                        <div class="form-group">
                            <label for="name"><b>Full Name :</b></label>
                            <input type="text" class="form-control" id="name" name="name">
                        </div>

                        <div class="form-group" class="dob_no" style="display:flex; justify-content: center; margin-top: 35px;">

                            <label for="mobile_no"><b>Mobile No. :</b></label>
                            <input type="number" class="form-control" id="mobile_no" name="mobile_no"
                                style="width: 25%;">


                            <label for="dob"><b>DOB :</b></label>
                            <input type="date" class="form-control" id="dob" name="dob" style="width: 25%;">

                        </div>

                        <div class="form-group">
                            <label for="mail"><b>Email ID :</b></label>
                            <input type="text" class="form-control" id="mail" name="mail"
                                aria-describedby="emailHelp">

                        </div>

                        <div class="form-group">
                            <label for="password"><b>Password : </b></label>
                            <input type="password" class="form-control" id="password" name="password" style="width: 45%;">
```


localhost/phpmyadmin/index.php?route=/database/structure&db=easeconstruct
phpMyAdmin
Recent
Favorites
New
easeconstruct
New
catalogue
images
registered_architecture
registered_customer
information_schema
mysql
performance_schema
phpmyadmin
test
Server: 127.0.0.1 » Database: easeconstruct
Structure
SQL
Search
Query
Export
Import
Operations
Privileges
Routines
Events
Triggers
More
Filters
Containing the word:
Table
Action
Rows
Type
Collation
Size
Overhead
catalogue
Browse
Structure
Search
Insert
Empty
Drop
1
InnoDB
utf8mb4_general_ci
16.0 KiB
images
7
InnoDB
utf8mb4_unicode_ci
16.0 KiB
registered_architecture
2
InnoDB
utf8mb4_general_ci
16.0 KiB
registered_customer
2
InnoDB
utf8mb4_general_ci
16.0 KiB
4 tables
Sum
12
InnoDB
utf8mb4_general_ci
64.0 KiB
0 B
Check all
With selected:
Print
Data dictionary
Create new table
Table name
Number of columns
4
Create
Console


Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Tracking
Triggers
Table structure
Relation view
Name Type Collation Attributes Null Default Comments Extra Action
1 arch_id int(100) No None AUTO_INCREMENT Change Drop More
2 arch_name varchar(100) utf8mb4_general_ci No None Change Drop More
3 arch_mobile text utf8mb4_general_ci No None Change Drop More
4 arch_dob date No None Change Drop More
5 arch_mail varchar(100) utf8mb4_general_ci No None Change Drop More
6 arch_pass varchar(100) utf8mb4_general_ci No None Change Drop More
7 arch_c_pass varchar(100) utf8mb4_general_ci No None Change Drop More
8 arch_photo varchar(1000) utf8mb4_general_ci No None Change Drop More
Check all
With selected:
Browse
Change
Drop
Primary
Unique
Index
Spatial
Fulltext
Add to central columns
Remove from central columns
Print
Propose table structure
Track table
Move columns
Normalize
Add
1
column(s)
after arch_photo
Go
Indexes
Action
Keyname
Type
Unique
Packed
Column
Cardinality
Collation
Null
Comment

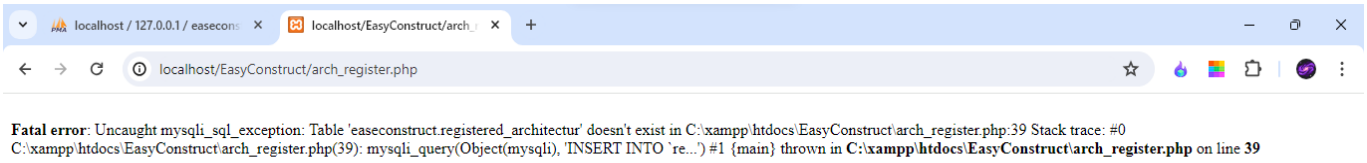
5) Testing Phase :

The testing phase involved rigorous testing of the Interior Design & Construction Management System to ensure its reliability, functionality, and performance. Testing activities included:

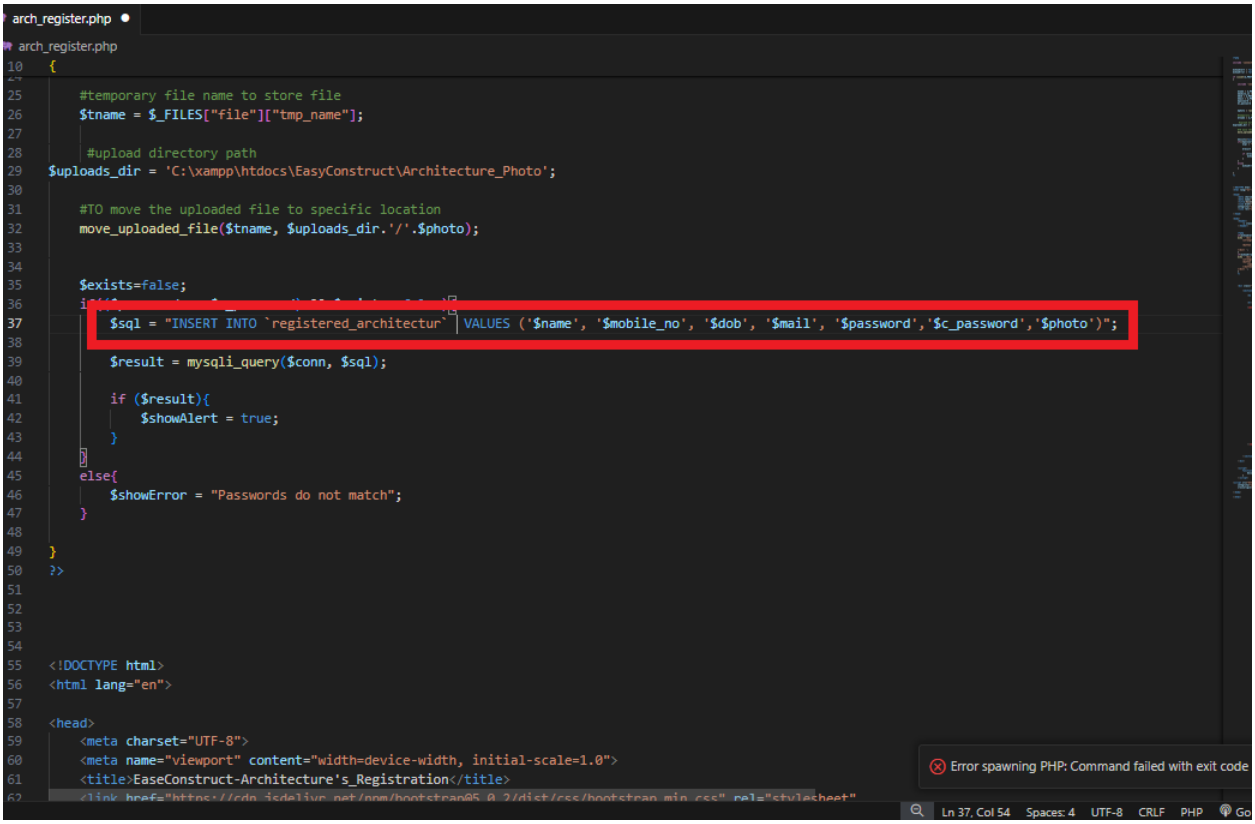
- **Unit testing:** Testing individual modules and components to verify their correctness.
- **Integration testing:** Testing the interaction between different modules to ensure they work together as expected.
- **System testing:** Testing the entire system to validate its compliance with the specified requirements.
- **User acceptance testing:** Involving stakeholders to validate the system's usability and effectiveness in real-world scenarios.

While Testing ,

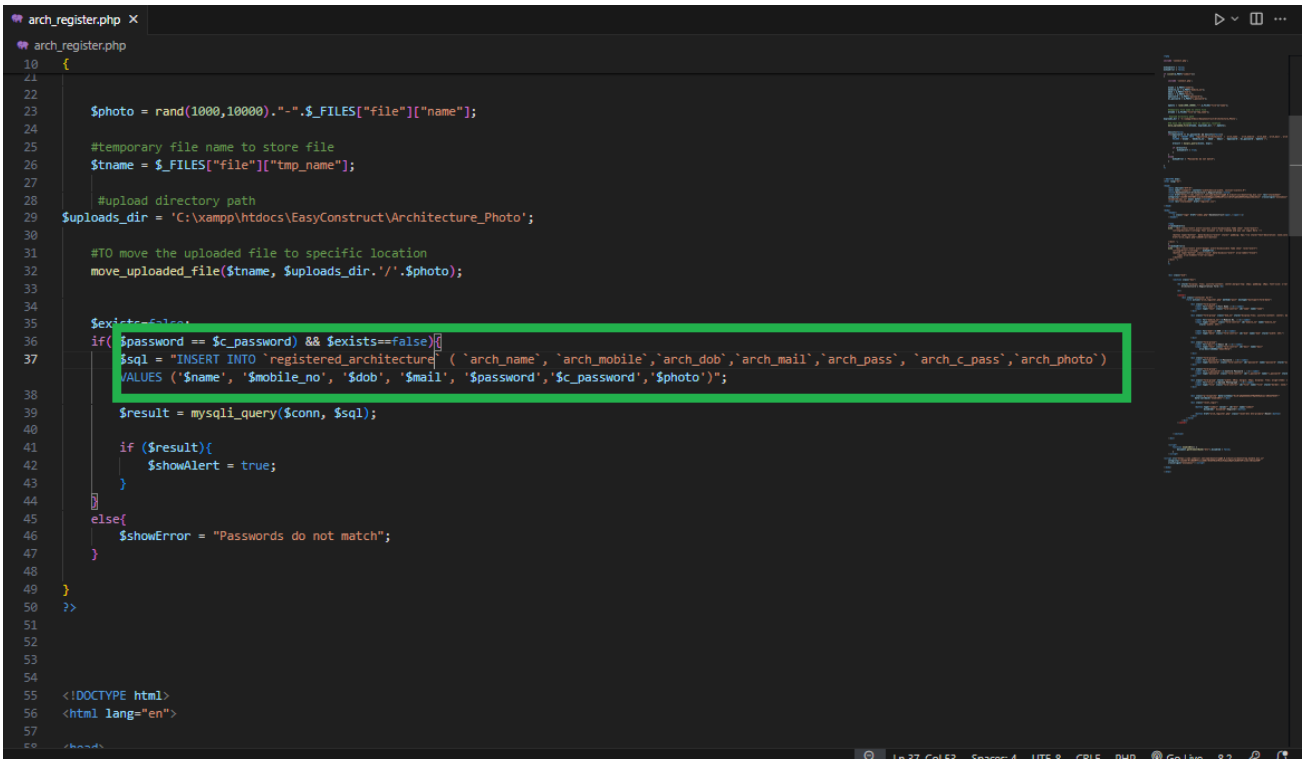
1) we encountered an error in our backend code when we were trying to register by filling each field it's showing error shown below :



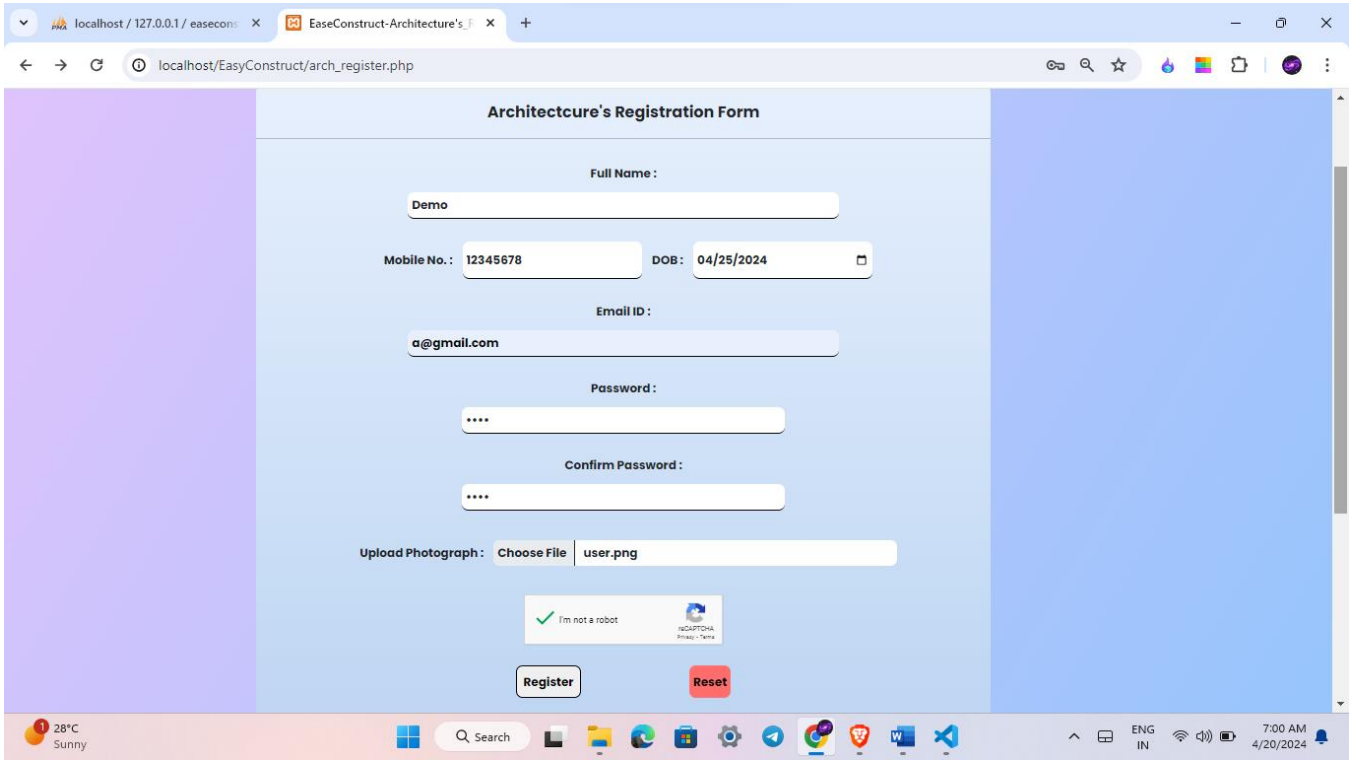
2) Actually , this error was thrown due to wrong syntax of INSERT Query which inserts all the said data to mentioned table of our Database , As Shown Below :

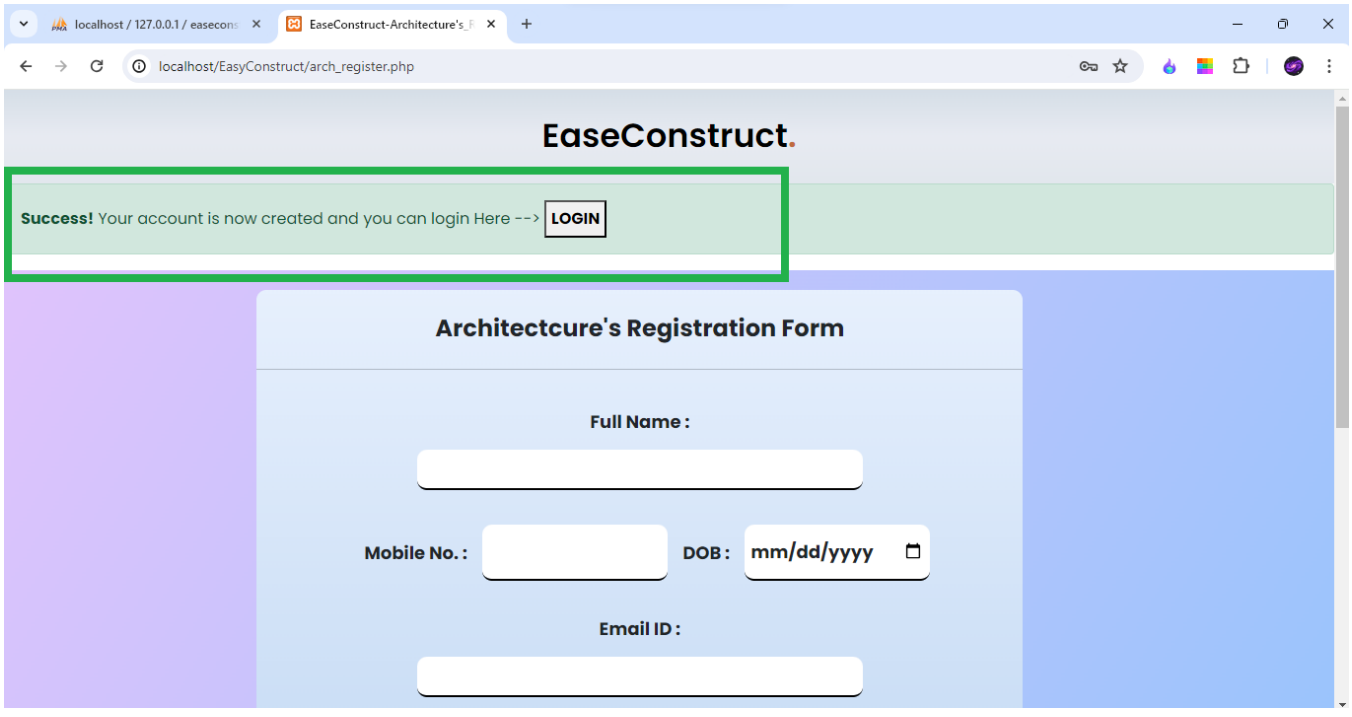


2) We solved above Syntax Error , As Shown Below :

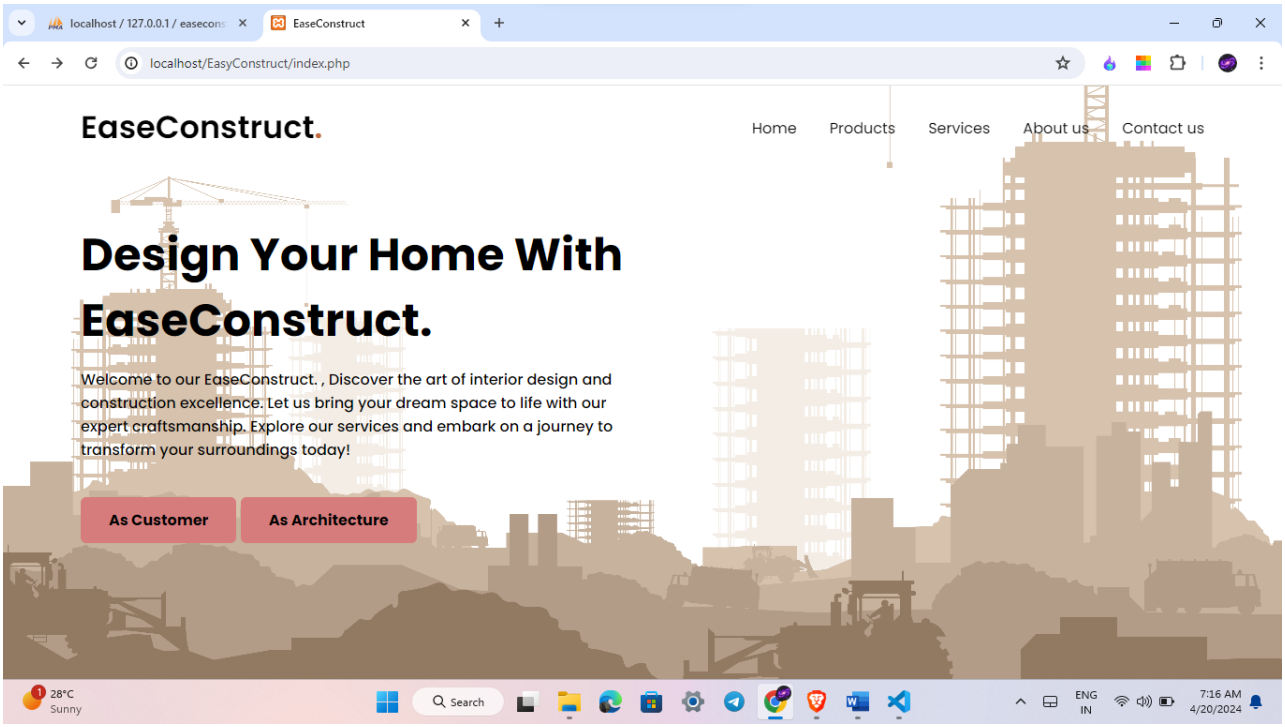


3) Now , we can register And further Login Easily :

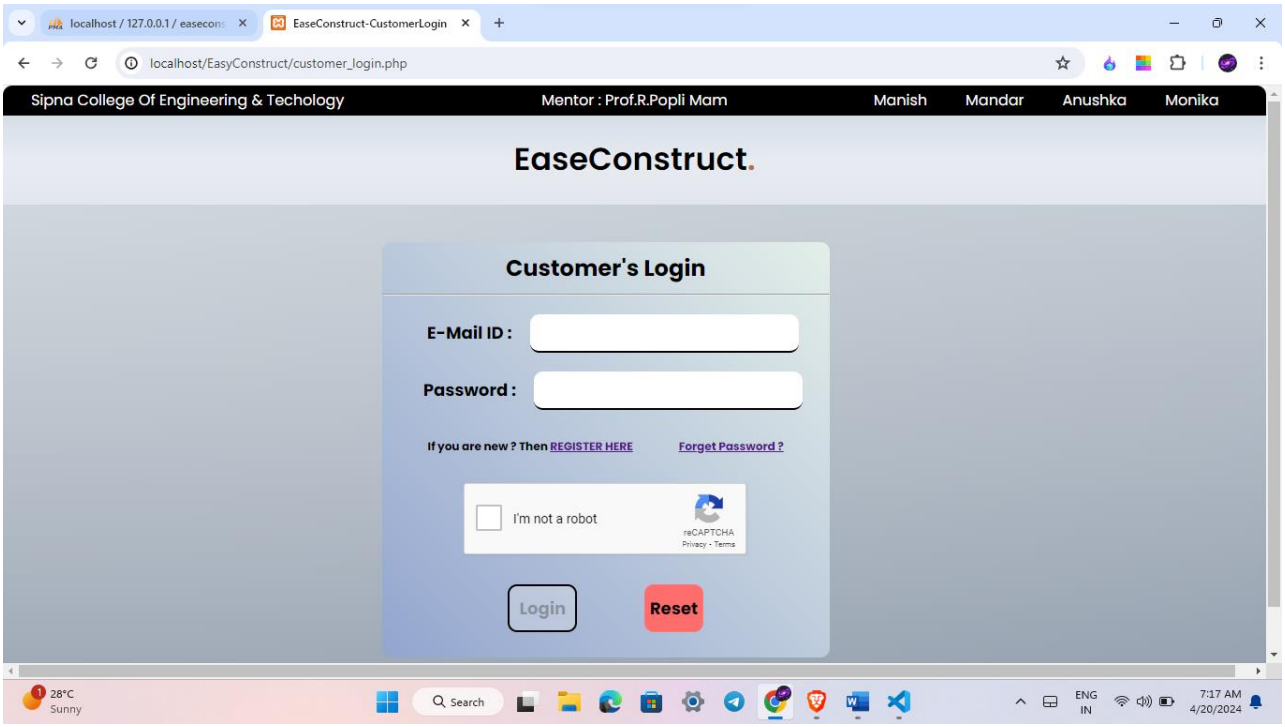




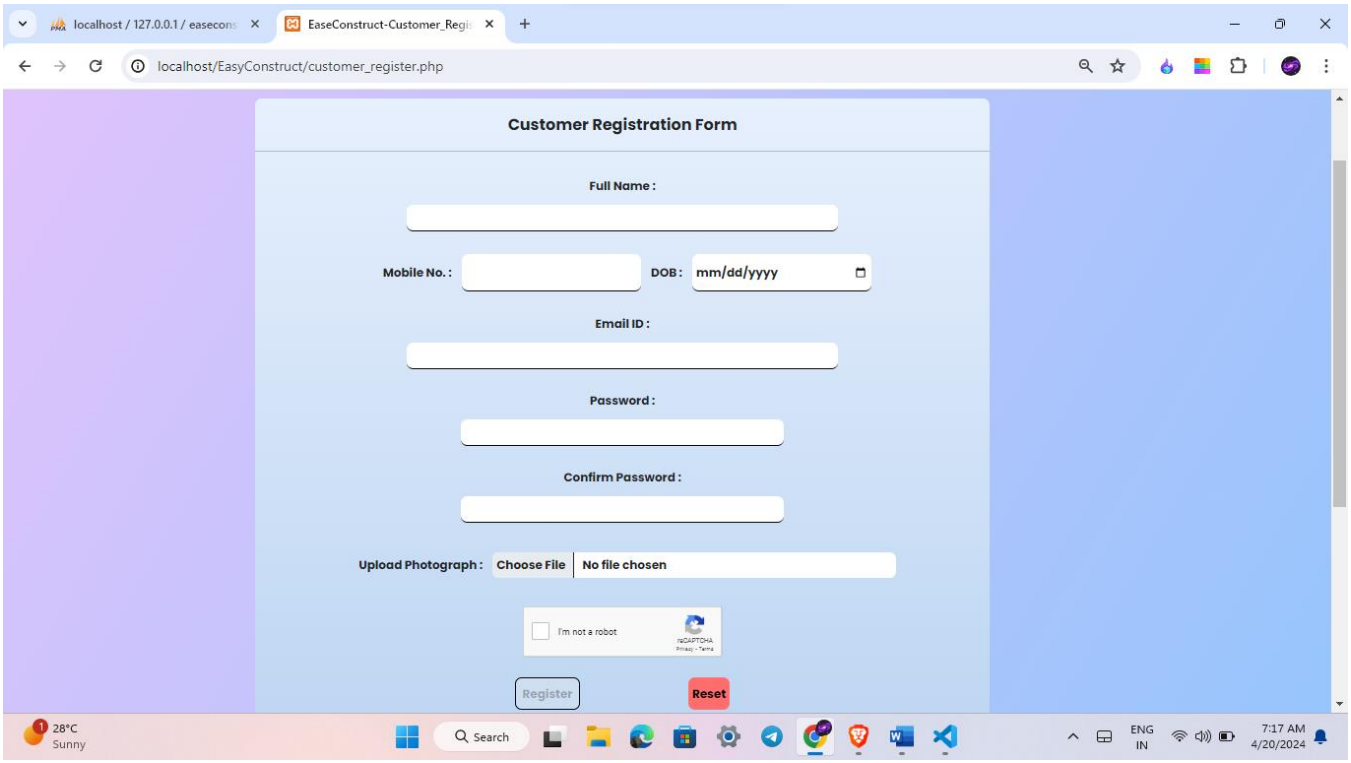
Snapshots :-



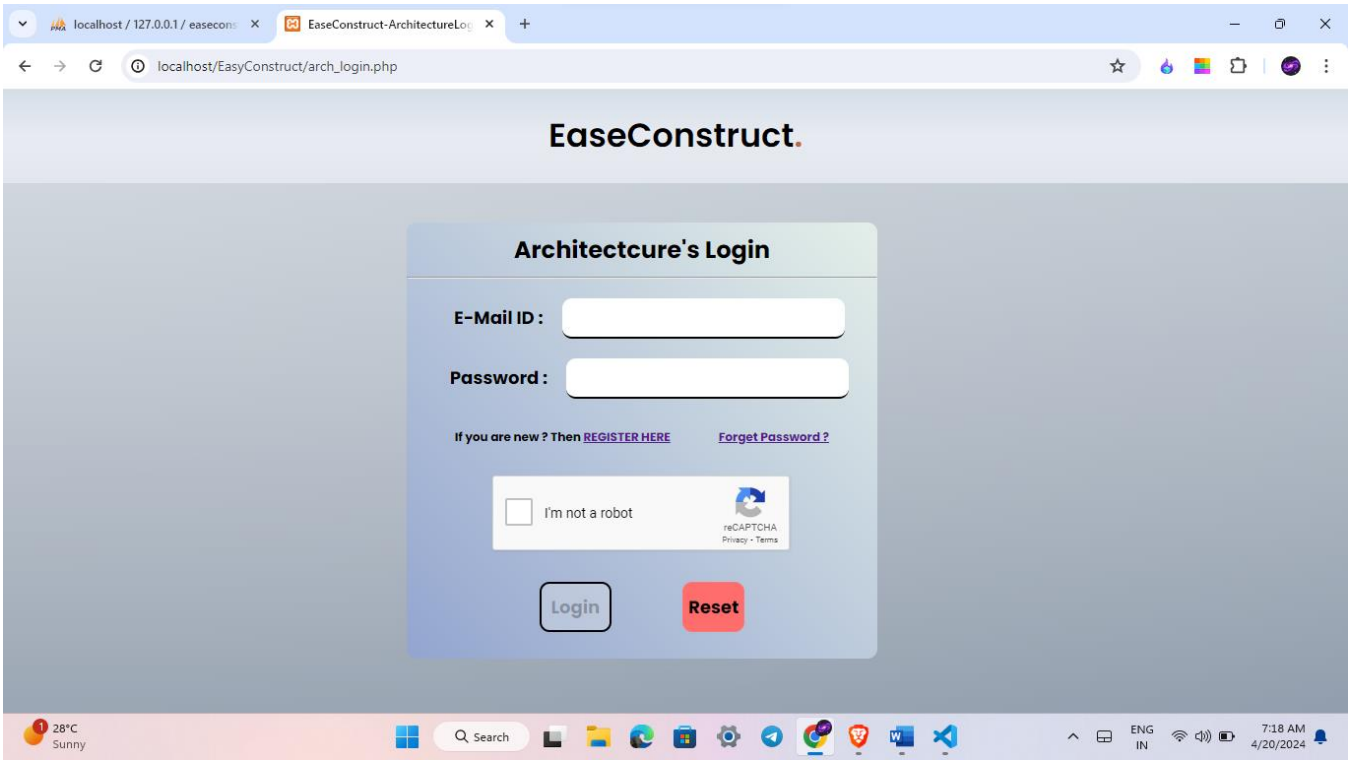
Main Home Page



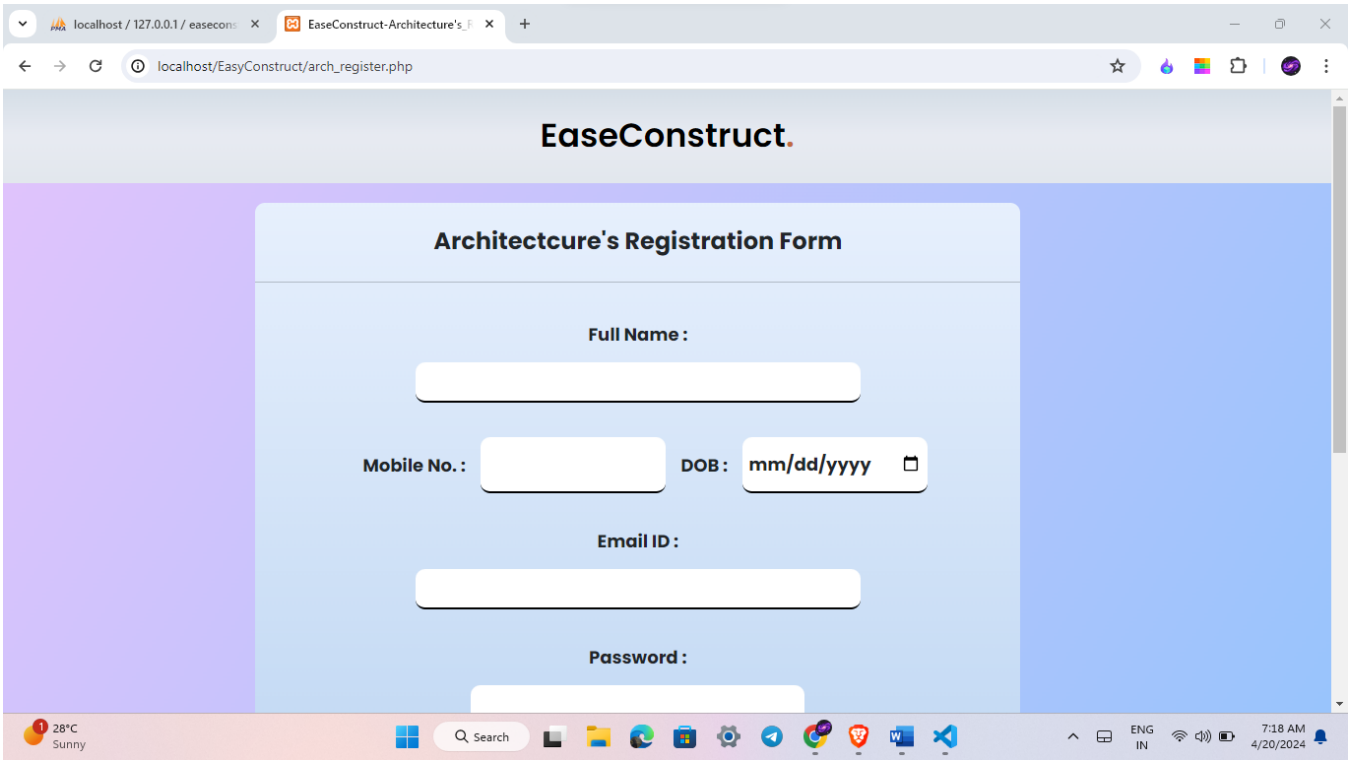
Customers Login



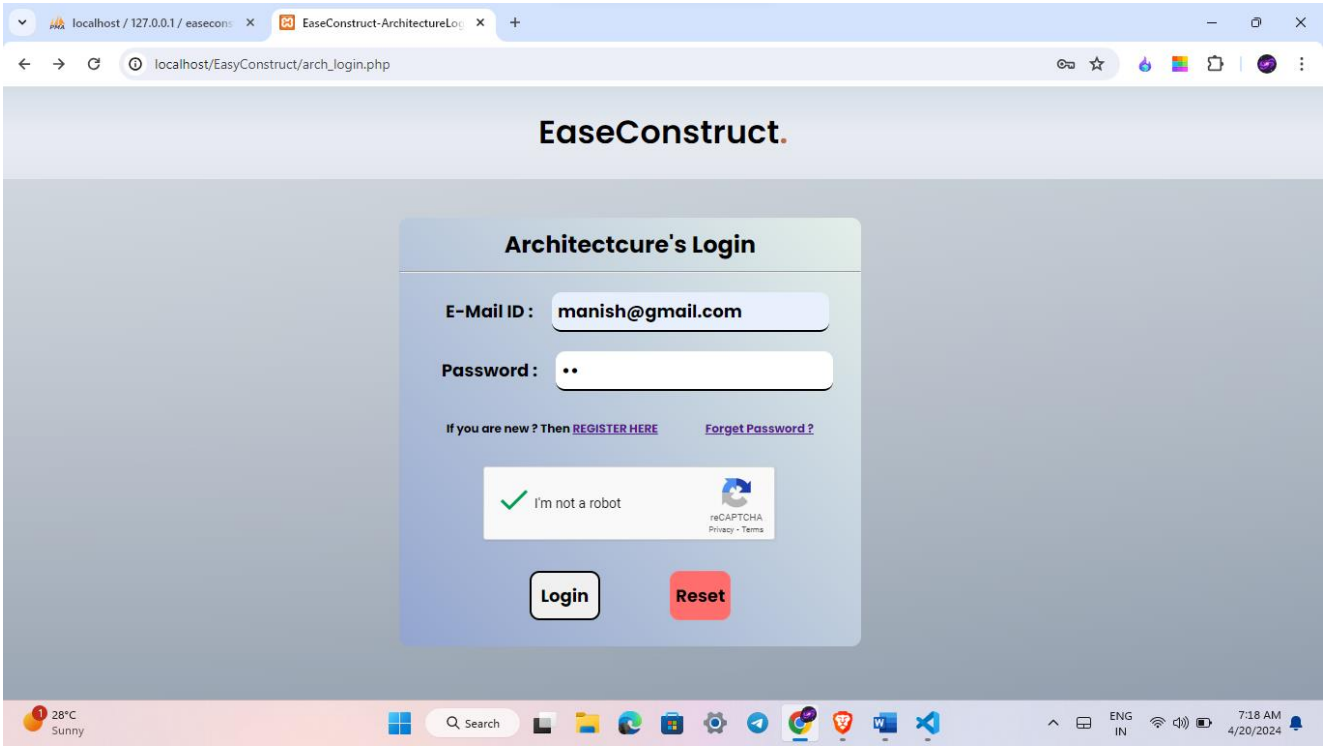
Customer's Registration



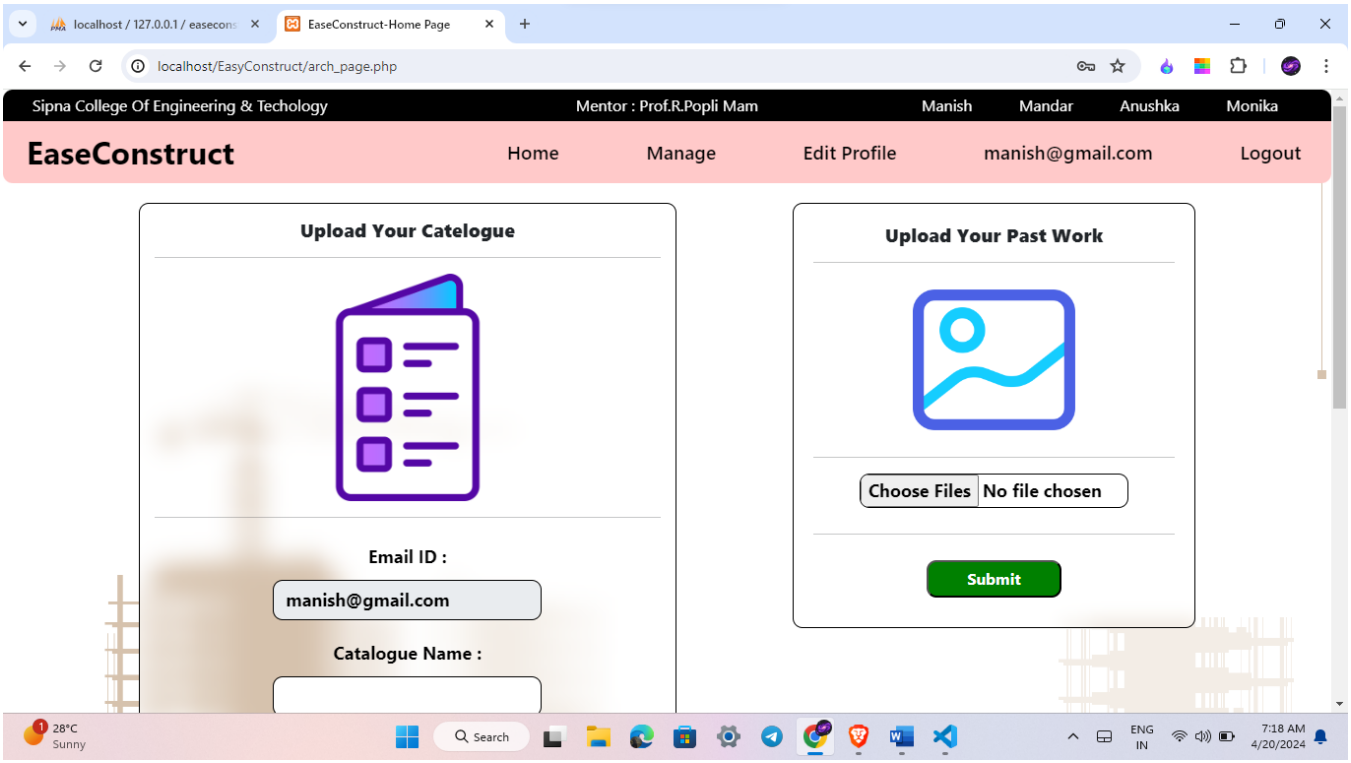
Architecture's Login



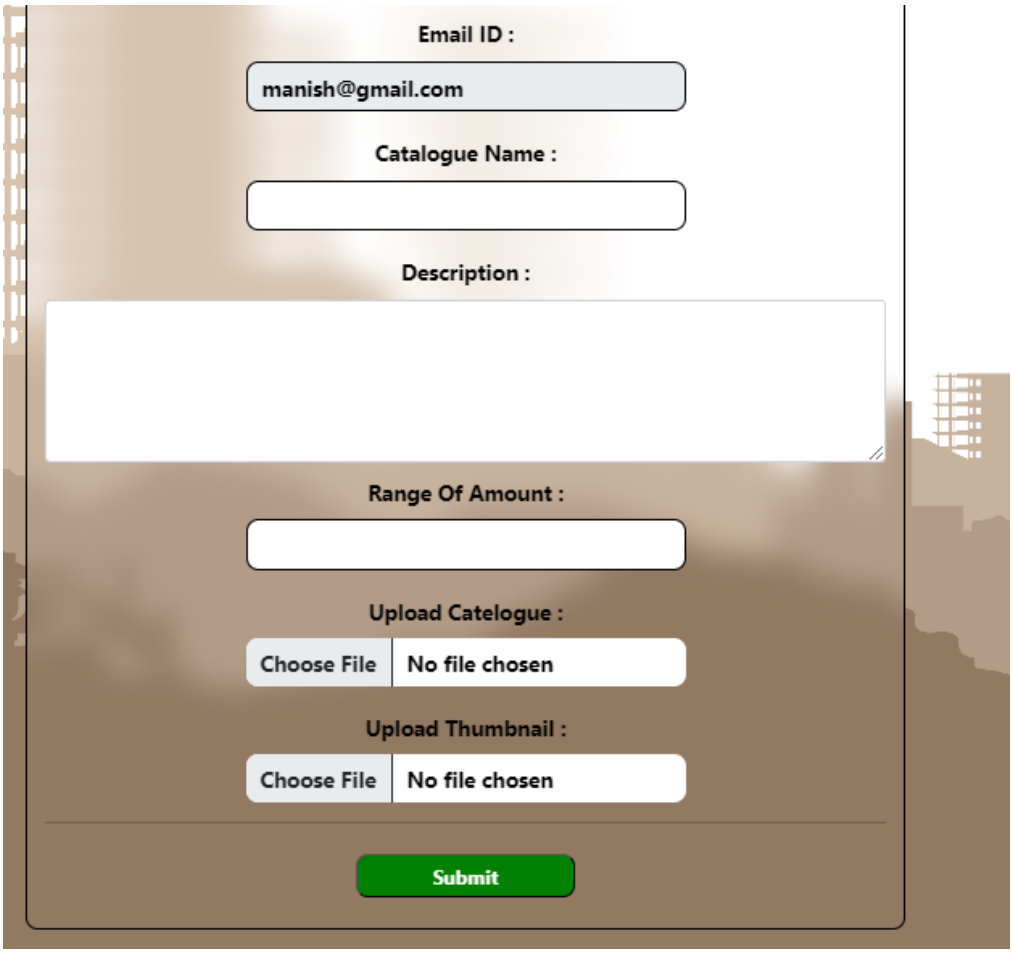
Architecture's Registration



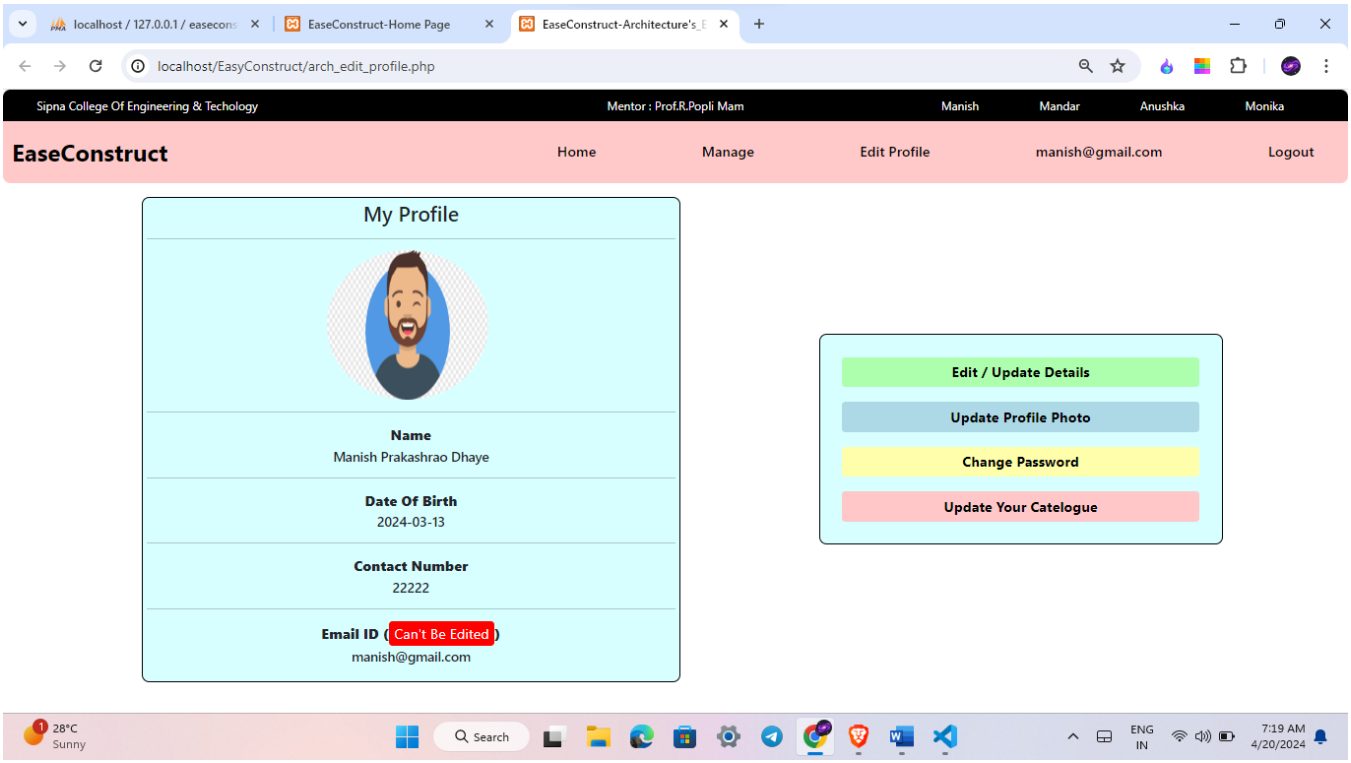
Initiating Login From Architecture



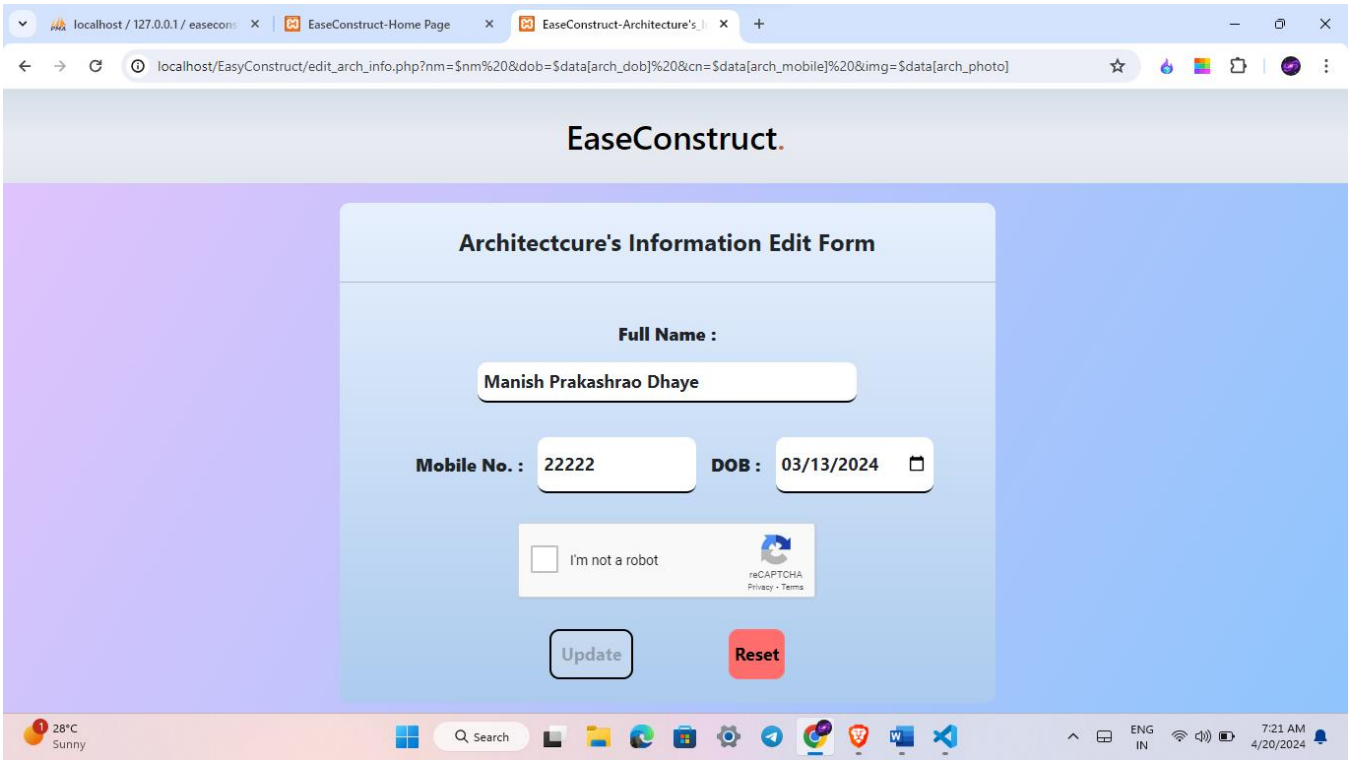
Architecture Home Page



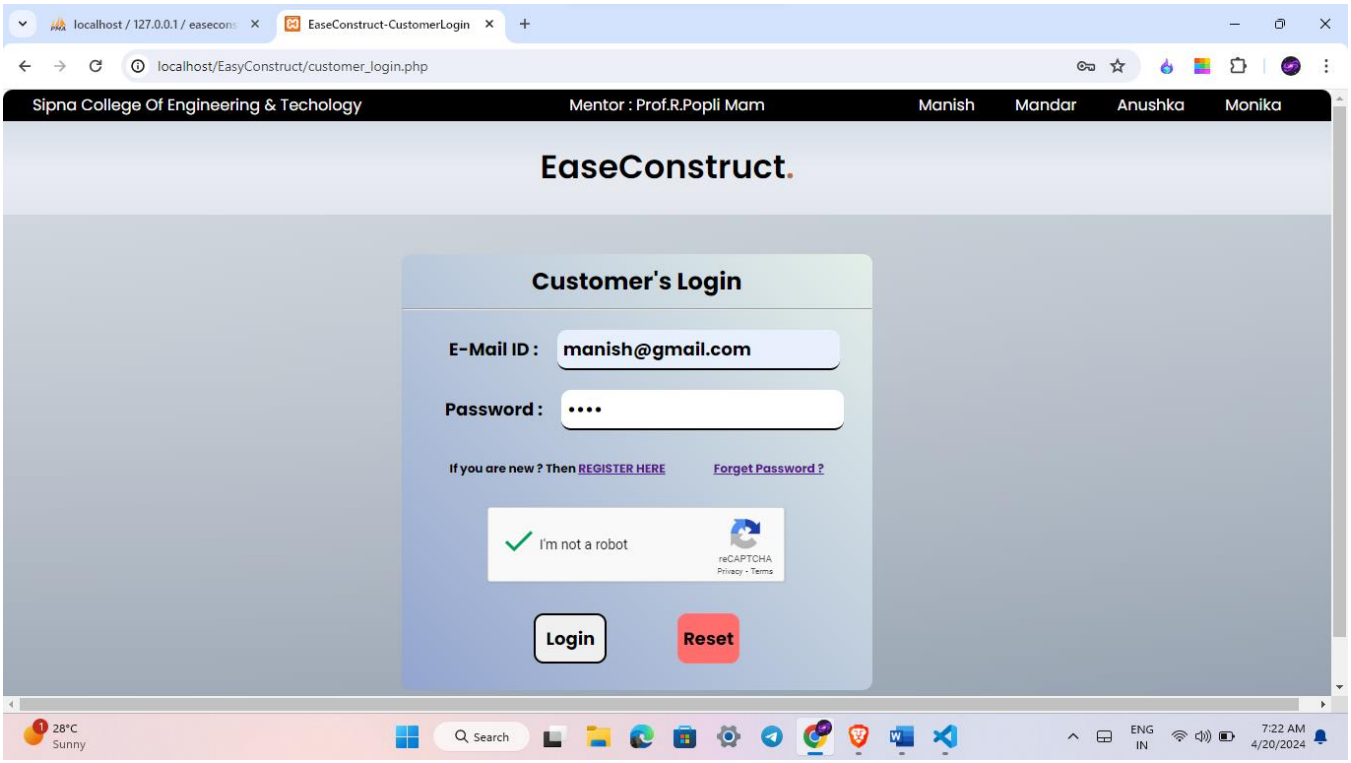
Architecture's Catalogue Upload



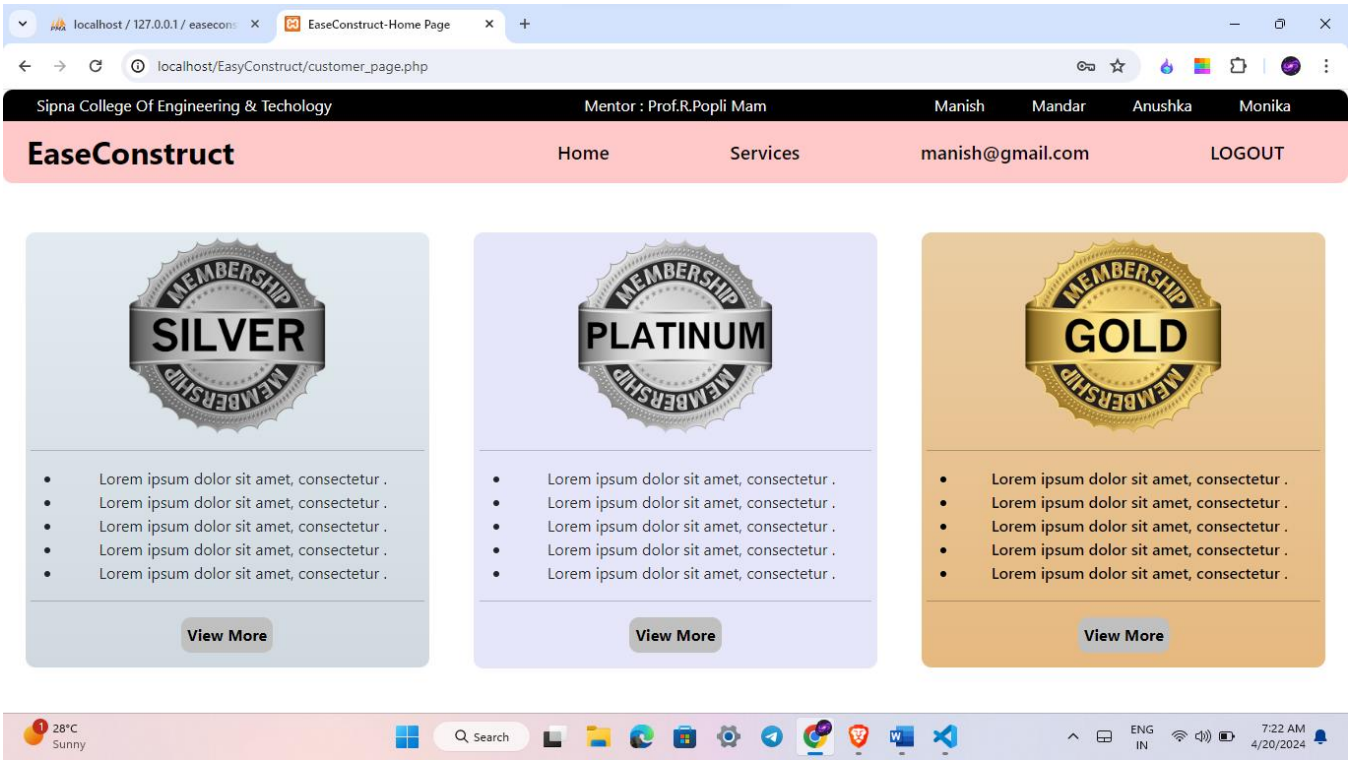
Architecture's Profile And Edit Page



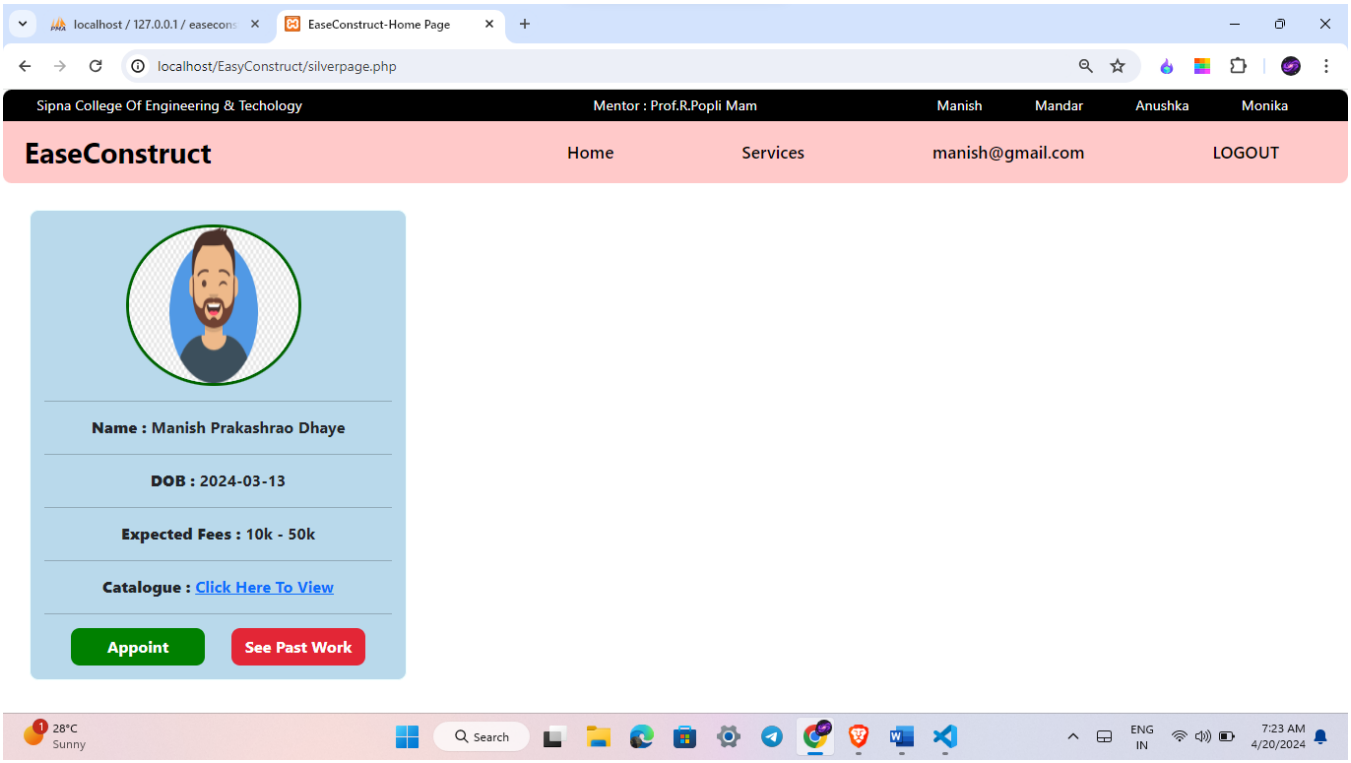
Architecture's Information Update Page



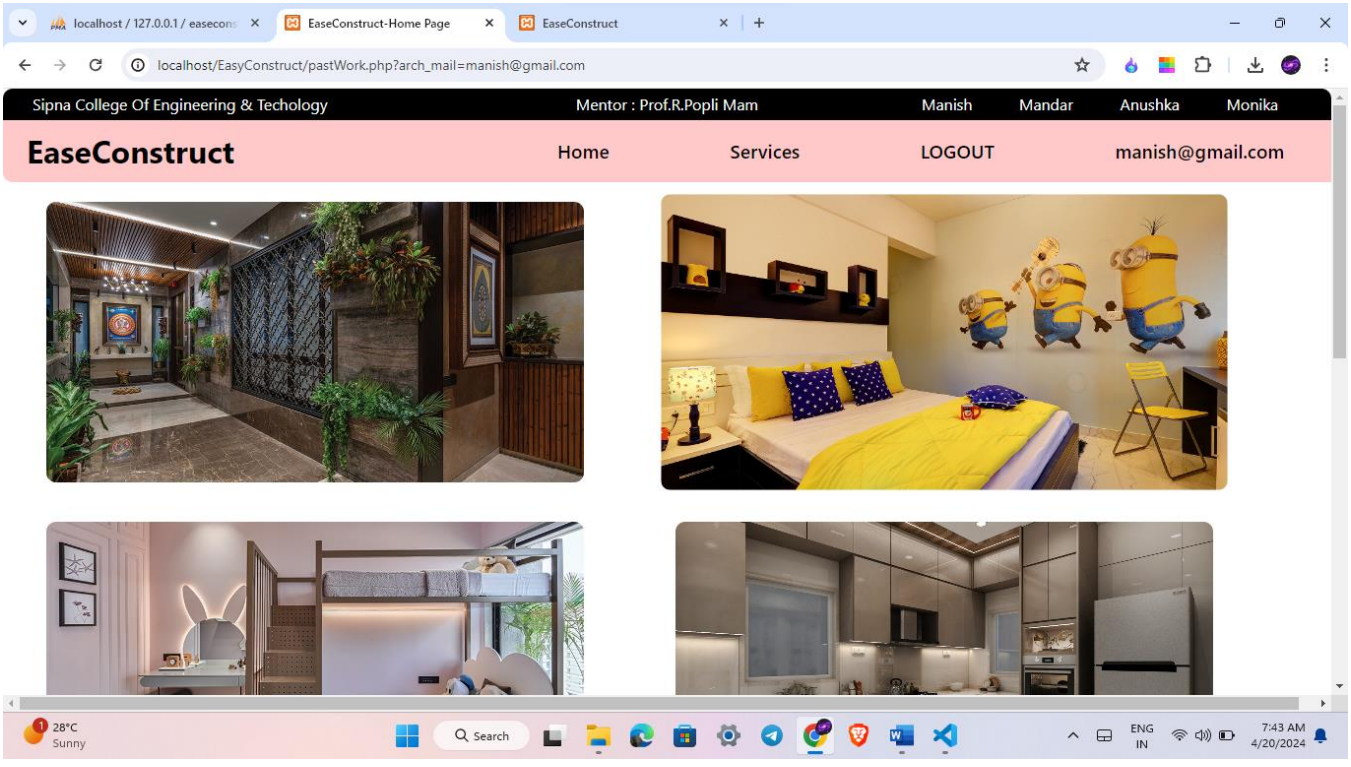
Customer's Login Page



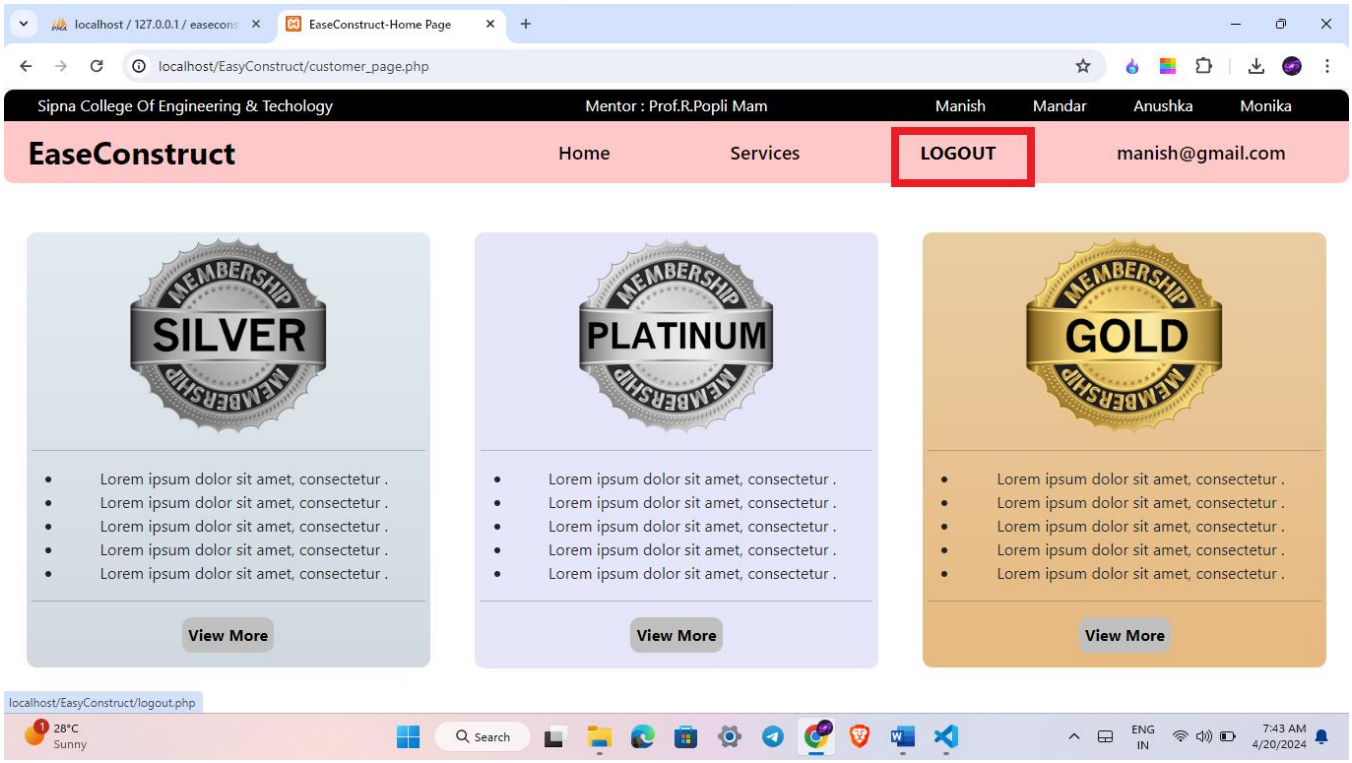
Customer's Membership Page



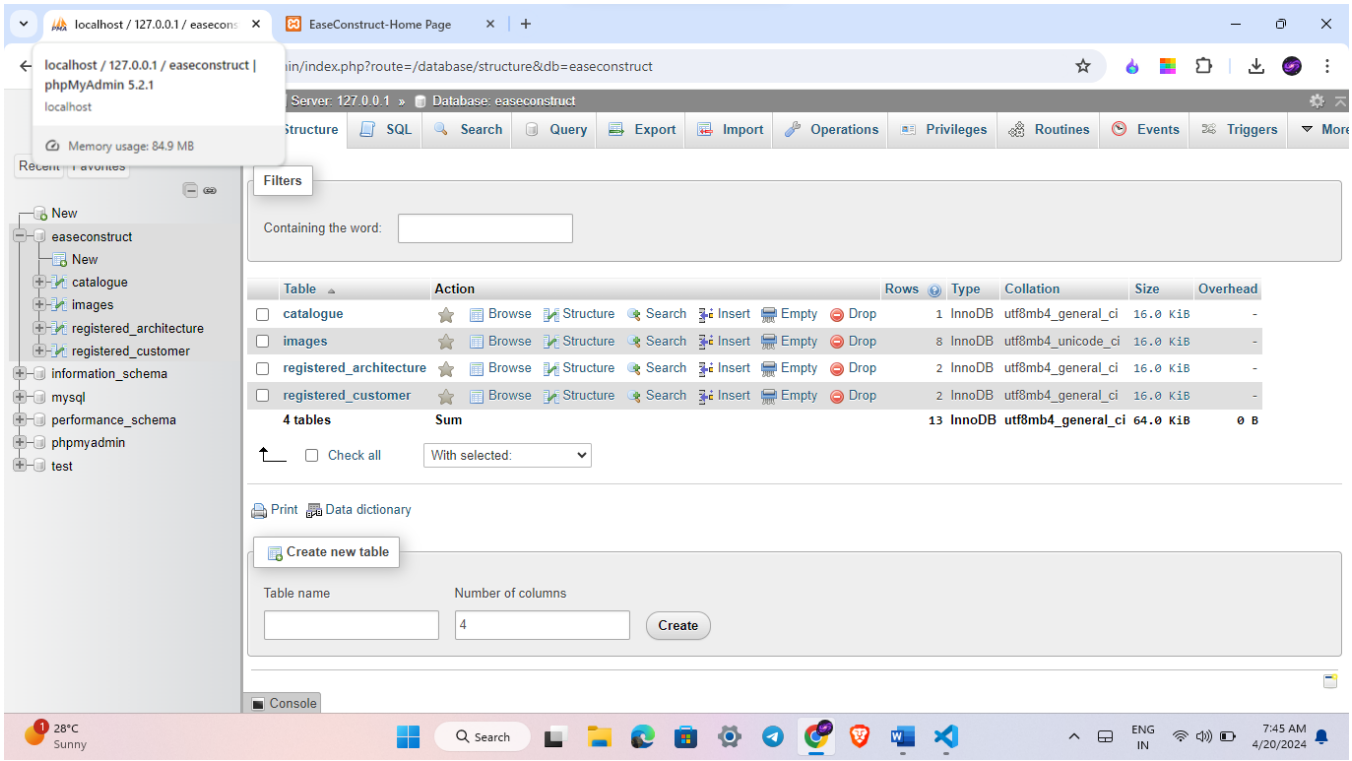
Customer's LoggedIn Home Page Where Architecture's Profiles Are Visible



Archihtecture's Previously Work Done Samples



Logout Button Which Terminates Session .



Database On Xampp Mysql

Conclusion

Thus , We've made the Mini Project For the Software Engineering And Described the Function of software using SDLC Phases .