Introduction

1.1 Purpose:

This website is an Online real estate business website through which a user can access its information and mange al the adding, updating, deleting the assets and some of its tasks. The Admin user s in change the update the information regarding property selling and buying. The system is very useful for the companies who develop apartments, hotels, Vila residential properties and Commercial Properties. Companies or individual agents can also advertise their property

1.2 Background:

The real of world wide web have spread across millions of households, so naturally Internet has become by far the best platform for real estate marketing today.

Now days when everything is online, how is it possible that real estate left web application behind the are lot of real estate companies who advertise their property online so idea behind developing this application is that their property can also sell. Or buy rental property using this. These applications ate not widely popular but in future, they have large scope of growth.

This website is online real estate management through which Individual agents or buyer can maintain their property document keeping and managing property registration and as access its information und mingle all the adding. updating deleting the as in some of its tank. The Admin user can inform their agents regarding to property and update the information.

1.3 Goal Statement:

The system should have a login. A login box should appear when the system is invoked. The Admin should have all the type of authority. The Admin should maintain property Admin identify property type as it is residential or commercial property

The Admin user can inform their agents for regarding to property and update the information regarding property and cancellation of property or changing buyer choice. The user should book the property for sell or rent with detail of property. The system is very useful for the company builders that call post and edit their properties and their personal info and admin can monitor records of all of them. The system is also useful which also keep track of account details of buyer's and.

1.4 Scope:

Planned approach towards working - The working in the organization will be well planned and organized. The data will be stored properly in data stores, which will help in retrieval of information as well as its storage.

Accuracy - The level of accuracy in the proposed system cannot be decided. Because here user buy and another user build the home there is no guarantee.

Reliability - The reliability of the proposed system will be high due to the above stated reasons. The reason for the increased reliability the system is that there would be proper storage of information.

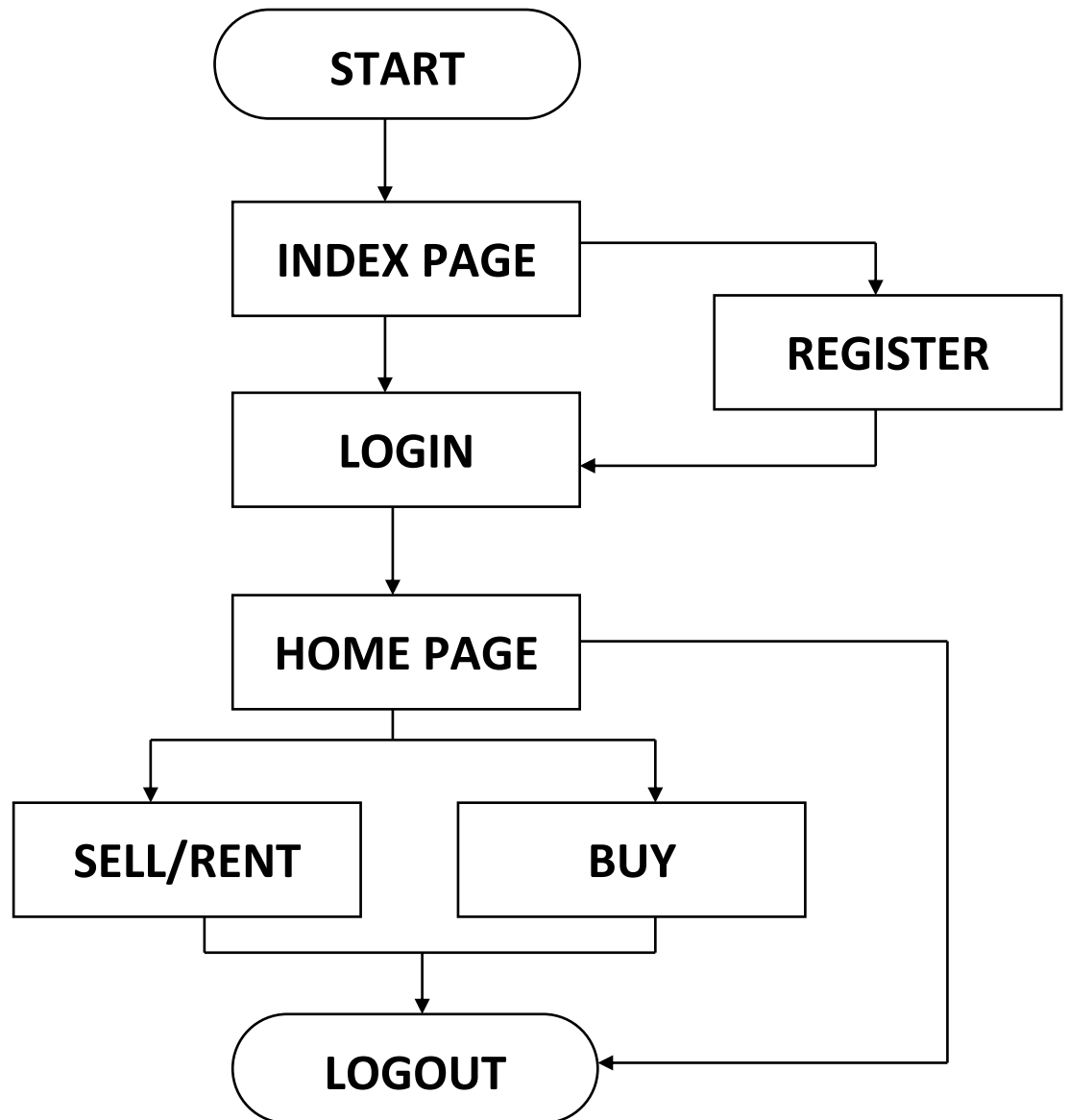# Review of Literature

2.1 Review of Literature:

A Real Estate Consultant is a professional who helps a client find the perfect property of his choice. The basic role of a Real Estate Consultant is to ensure that the property-related requirements of his/her clients are met. Real Estate Consultants have an in-depth working knowledge of the real estate industry and hence can provide the best advice to a customer looking for a commercial or residential property. They also guide a client through the whole process of purchase, monetary settlement, legal formalities and construction formalities of a property.

Real Estate Agents offer valuable services and play an essential role in the real estate industry. Since this is an industry that is very complicated to navigate and full of misinformation and loopholes due to which a client can suffer loss and anxiousness, clients rely on an expert Real Estate Agent to give them the best advice. Thus, Real Estate Agents help build trust in an industry that is not easily trusted or comfortable to navigate for an outsider.

Real Estate Agents must not be confused with Real Estate Brokers or Realtors. Although both require a similar set of knowledge and perform mostly the same tasks, the target of a Real Estate Agent is to help their client while Brokers and Realtors push towards a sale. As any expert Real Estate Agent would tell you, the job is not about being a Salesman but about being an advisor for their client. In order to become a Real Estate Agent, a person should be an excellent communicator apart and must be able to make good predictions based on the analysis of the Real Estate sector.

2.2 Proposed System:

a. Flow Chart

```
                    ┌─────────────┐
                   (    START     )
                    └─────────────┘
                           │
                           ▼
              ┌──────────────────────┐
              │     INDEX PAGE       │──────────────┐
              └──────────────────────┘              ▼
                           │              ┌──────────────────┐
                           │              │     REGISTER     │
                           ▼              └──────────────────┘
              ┌──────────────────────┐              │
              │       LOGIN          │◄─────────────┘
              └──────────────────────┘
                           │
                           ▼
              ┌──────────────────────┐
              │     HOME PAGE        │──────────────────┐
              └──────────────────────┘                  │
                    │            │                       │
                    ▼            ▼                       │
        ┌───────────────┐  ┌───────────────┐             │
        │   SELL/RENT   │  │     BUY       │             │
        └───────────────┘  └───────────────┘             │
                    │            │                       │
                    └─────┬──────┘                       │
                          ▼                              │
                   ┌─────────────┐                       │
                  (    LOGOUT     )◄─────────────────────┘
                   └─────────────┘
```

Project Requirements

3.1 Specific Requirements:

3.1.1 Hardware Requirements:

- Any laptop or Desktop with 4GB RAM.

- 100GB memory.

3.1.2 Software Requirements:

- XAMPP Server.

- Any text editor.

- Any compatible browser.

3.2 System attributes:

- **Reliability** – This system is designed to have very simple database just to cater the exact need of real estate management. It is tested for all the constraints at development stage.

- **Availability** – This system will only available till the system on which it is running.

- **Security** – This system is provided with authentication without which no user can pass. So only the legitimate users are allowed to use the application If the legitimate users share the authentication information then the system is open to outsiders.

- **Portability** – There will be no maintenance required for the software. The database is provided by the end-user and therefore is maintained by this user.

- **Maintainability** – The system is not portable as it is a standalone application ruining a single system wah how shared database

3.3 Language used:

3.3.1 HTML5

3.3.2 CSS3

3.3.3 JavaScript

3.3.4 BootStrap

3.3.5 PHP

3.3.1 HTML5:

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by *tags*, written using angle brackets. Tags such as `<img />` and `<input />` directly introduce content into the page. Other tags such as `<p>` surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

HTML can embed programs written in a scripting language such as JavaScript, which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

3.3.2 CSS3:

Cascading Style Sheets (**CSS**) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .CSS file which reduces complexity and repetition in the structural content as well as enabling the .CSS file to be cached to improve the page load speed between the pages that share the file and its formatting.

Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braille-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.

The name *cascading* comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable.

The CSS specifications are maintained by the World Wide Web Consortium (W3C). Internet media type (MIME type) text/CSS is registered for use with CSS by RFC 2318 (March 1998). The W3C operates a free CSS validation service for CSS documents. In addition to HTML, other markup languages support the use of CSS including XHTML, plain XML, SVG, and XUL.

3.3.3 JavaScript:

JavaScript often abbreviated as **JS**, is a programming language that conforms to the ECMAScript specification. JavaScript is high-level, often just-in-time compiled, and multi-paradigm. It has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions.

Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive web pages and is an essential part of web applications. The vast majority of websites use it for client-side page behavior, and all major web browsers have a dedicated JavaScript engine to execute it.

As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM). However, the language itself does not include any input/output (I/O), such as networking, storage, or graphics facilities, as the host environment (usually a web browser) provides those APIs.

JavaScript engines were originally used only in web browsers, but they are now embedded in some servers, usually via Node.js. They are also embedded in a variety of applications created with frameworks such as Electron and Cordova.

Although there are similarities between JavaScript and Java, including language name, syntax, and respective standard libraries, the two languages are distinct and differ greatly in design.

What is a framework?

A framework is a standardized set of concepts, practices and criteria for dealing with a common type of problem which can be used as a reference to help us approach and resolve new problem of a similar nature.

In the world of web design, to give a more straightforward definition, a framework is a defined as a package made up of a structure of files and folders of standardized code (HTML, CSS, JS Documents etc.) which can be used to support the development of websites as a basis to start building a site.

Most website share a very similar (not to say identical) structure. The aim of framework is to provide a common structure. The aim of frameworks is to provide a common Structures so that developers don't have to redo it from scratch and can reuse the code provided. In this Way frameworks allow us to cut out of the work and save a lot of time.

3.3.4 BootStrap:

Bootstrap was developed by Mark Otto and Jacob Thornton at Twitter, and released as an open-source product in August 2011 on GitHub.

Bootstrap is a free front-end framework for faster and easier web development. Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins Bootstrap also gives you the ability to easily create responsive designs.

For example, Bootstrap has provisioned for light- and dark-colored tables, page headings, more prominent pull quotes, and text with a highlight.

Advantages of Bootstrap:

- Easy to use: Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
- Responsive features: Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
  Mobile-first approach: In Bootstrap 3, mobile-first styles are part of the core framework.
- Browser compatibility: Bootstrap is compatible with all modern browsers (Chrome, Firefox, Internet Explorer, Edge, Safari, and Opera).

3.3.5 PHP:

PHP is a general-purpose scripting language especially suited to web development. It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1994. The PHP reference implementation is now produced by The PHP Group. PHP originally stood for Personal Home Page, but it now stands for the recursive initialism PHP: Hypertext Preprocessor.

PHP code is usually processed on a web server by a PHP interpreter implemented as a module, a daemon or as a Common Gateway Interface (CGI) executable. On a web server, the result of the interpreted and executed PHP code – which may be any type of data, such as generated HTML or binary image data – would form the whole or part of an HTTP response. Various web template systems, web content management systems, and web frameworks exist which can be employed to orchestrate or facilitate the generation of that response. Additionally, PHP can be used for many programming tasks outside of the web context, such as standalone graphical applications and robotic drone control. Arbitrary PHP code can also be interpreted and executed via command-line interface (CLI).

The standard PHP interpreter, powered by the Zend Engine, is free software released under the PHP License. PHP has been widely ported and can be deployed on most web servers on almost every operating system and platform, free of charge.

The PHP language evolved without a written formal specification or standard until 2014, with the original implementation acting as the de facto standard which other implementations aimed to follow. Since 2014, work has gone on to create a formal PHP specification.

Implementation

4.1 Code for index.php:

```php
<?php
if(isset($_POST['register']))
{
  $con = mysqli_connect('localhost','root');
  mysqli_select_db($con, 'avr_consultancy');
  $uname = $_POST['username'];
  $fname = $_POST['fname'];
  $phno = $_POST['phno'];
  $email = $_POST['email'];
  $pwd = $_POST['password'];

  $s = "SELECT * FROM users WHERE username =  '$uname'";

  $result = mysqli_query($con, $s);

  $num = mysqli_num_rows($result);

  if($num >= 1)
  {
   echo '<script type="text/javascript"> ';

     echo '  if (confirm("Username already exist")) {';
     echo '    document.location = "index.php";';
     echo '  }';

     echo '</script>';

  }
  else
  {
   $reg = "INSERT INTO users(username, fname, phno, email, pwd) VALUES ('$uname', '$fname',
'$phno', '$email', '$pwd')";
   mysqli_query($con, $reg);
   echo"<center><h3>Registration successfull!</h3></center>";
   session_start();
   header("location:login.php");
  }
}
?>

<html>
   <head>
     <link rel="stylesheet" href="./css/bootstrap.min.css">
     <script src="./js/jquery-3.4.1.slim.min.js"></script>
     <script src="./js/popper.min.js"></script>
     <script src="./js/bootstrap.min.js"></script>
     <link rel="stylesheet" href="./css/styles.css">
     <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-
awesome.min.css">
     <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
   </head>
```

```
<body>
    <nav class="navbar navbar-expand-lg navbar-dark bg-dark">
        <a class="navbar-brand" href="#"><span><img src="img/logo1.png" width="100"
height="30"></span></a>
        <button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false"
aria-label="Toggle navigation">
           <span class="navbar-toggler-icon"></span>
        </button>
        <div class="collapse navbar-collapse" id="navbarSupportedContent">
         <ul class="navbar-nav ml-auto">
           <li class="nav-item active">
            <a class="nav-link" href="login.php" target = "_blank"> LOGIN <span class="sr-
only">(current)</span></a>
             </li>
          </ul>
        </div>
    </nav>
    <br>
    <!--row for form-->
    <div class="row" style="padding: 20px;">
      <div class="container">
        <div class="owner">
           <p>FOR BUYING, SELLING AND RENTAL OF FLATS, SHOPS, PLOTS, ETC.</p>
           <p>ALSO FURNITURE AND INTERIOR WORK</p>
        </div>
      </div>
    </div><br>

    <div class="container">
      <div class="text-center" style="margin-top: 16vh;">
        <div class="imgs">
           <img src="img/img1.jpg" width="180" height="180" style="border-radius: 100px;">
           <img src="img/img2.jpg" width="180" height="180" style="border-radius: 100px; margin-
left: 10px;">
           <img src="img/img3.jpg" width="180" height="180" style="border-radius: 100px; margin-
left: 10px;">
           <img src="img/img4.jpg" width="180" height="180" style="border-radius: 100px; margin-
left: 10px;">
           <img src="img/img5.jpg" width="180" height="180" style="border-radius: 100px; margin-
left: 10px;">
        </div>
      </div>
      <hr width="30">
    </div>
    <div class="container">
    <br>
    <div class="row">
      <div class="vform">
        <form action="index.php" method="POST" enctype="multipart/form-data">
          <div class="form-group">
            <label for="uname">Username</label>
            <input type="text" name="username" class="form-control" id="fname" required >
          </div>
```

```
<div class="form-group">
    <label for="fname">Full Name</label>
    <input type="text" name="fname" class="form-control" id="fname" required >
</div>
<div class="form-group">
    <label for="phno">Contact No.</label>
    <input type="text" name="phno" class="form-control" id="fname" required >
</div>
<div class="form-group">
    <label for="email">Email</label>
    <input type="email" name="email" class="form-control" id="email" required >
</div>
<div class="form-group">
    <label for="inputPassword3" >Password</label>
    <input type="password" name="password" class="form-control" id="inputPassword3"
maxlength="10" required >
</div>
<button type="submit" class="btn btn-primary" name="register"
value="register">Register</button>
<div class="form-group">
    <center>Already Have An Account? <a href="login.php">Login</a></center>
</div>
</form>
</div>
</div>
</div>
<br>
<!-- Footer -->
<footer class="page-footer font-small  pt-4" style="background-color: #f8f8f8c9;">
    <!-- Footer Links -->
    <div class="container-fluid text-center text-md-left">
        <!-- Grid row -->
        <div class="row">
            <!-- Grid column -->
            <div class="col-md-6 mt-md-0 mt-3">
                <!-- Content -->
                <h5 class="text-uppercase">AVR Consultancy</h5>
                <p>We are experienced real estate professionals who buy and sell property across the
nation with the primary intent of creating positive outcomes for people in predicament</p>
            </div>
            <!-- Grid column -->
            <hr class="clearfix w-100 d-md-none pb-3">
            <!-- Grid column -->
            <div class="col-md-3 mb-md-0 mb-3">
                <a href="https://www.facebook.com/" target = "_blank" class="fa fa-facebook"></a>
                <a href="https://www.instagram.com/17_27_28_/" target = "_blank" class="fa fa-
instagram"></a>
                <a href="https://in.linkedin.com/in/vighnesh-jadhav-5749101a9?trk=people-
guest_people_search-
card&challengeId=AQHnWkm81d3hsQAAAXU61FyYcqMx1x8j7wDhJ7NXeFXc4NaX7pPG1Al5cz7
yfMi2otBcW6ddPdWsh0MoRBxo8-TUW-r-aNhSEw&submissionId=a2c5c4d4-ea08-3f16-c868-
5cc57b324329" target = "_blank" class="fa fa-linkedin"></a>
                <a href="https://twitter.com/AtharvaSureshJ1" target = "_blank" class="fa fa-
twitter"></a>
```
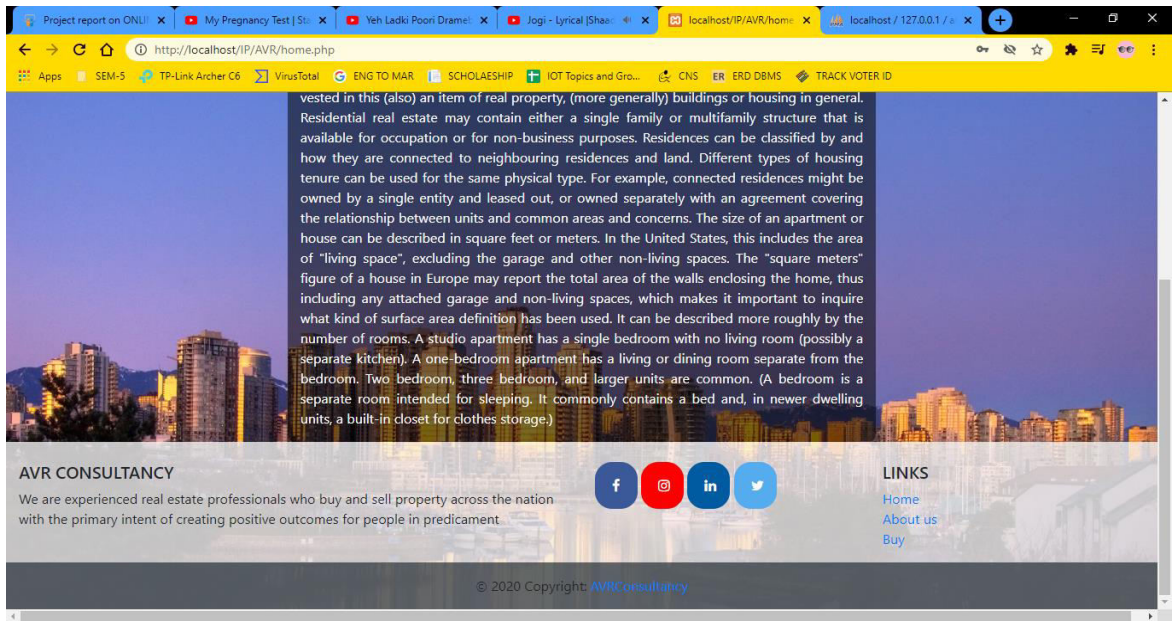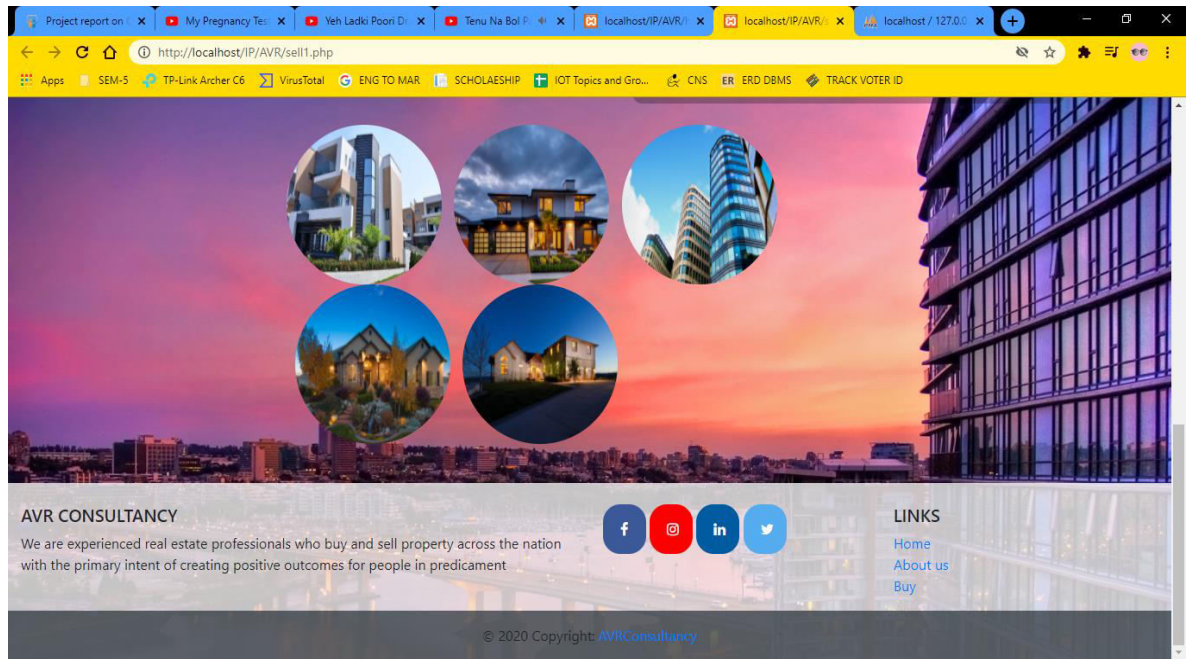
```
        </div>
        <!-- Grid column -->
        <div class="col-md-3 mb-md-0 mb-3">
          <!-- Links -->
          <h5 class="text-uppercase">Links</h5>
          <ul class="list-unstyled">
            <li>
            <a href="home.php" target = "_blank">Home</a>
            </li>
            <li>
            <a href="#!">About us</a>
            </li>
            <li>
            <a href="buy.php" target = "_blank">Buy</a>
            </li>
          </ul>
        </div>
        <!-- Grid column -->
      </div>
      <!-- Grid row -->
    </div>
    <!-- Footer Links -->

    <!-- Copyright -->
    <div class="footer-copyright text-center py-3" style="background-color: #212b32b1;">© 2020
Copyright:
        <a href="#"> AVRConsultancy</a>
    </div>
    <!-- Copyright -->
  </footer>
  <!-- Footer -->
  <!-- Modal for contact us-->
  <div class="modal fade" id="exampleModal" tabindex="-1" role="dialog" aria-
labelledby="exampleModalLabel" aria-hidden="true">
      <div class="modal-dialog" role="document">
      <div class="modal-content">
        <div class="modal-header">
          <h5 class="modal-title" id="exampleModalLabel">Contact Us</h5>
          <button type="button" class="close" data-dismiss="modal" aria-label="Close">
            <span aria-hidden="true">&times;</span>
          </button>
        </div>
        <div class="modal-body">
          <form>
            <div class="form-group">
              <label for="name">Your Name:</label>
              <input type="text" class="form-control" id="name">
            </div>
            <div class="form-group">
             <label for="exampleFormControlInput1">Your Email address</label>
             <input type="email" class="form-control" id="exampleFormControlInput1"
placeholder="name@example.com">
            </div>
            <div class="form-group">
```
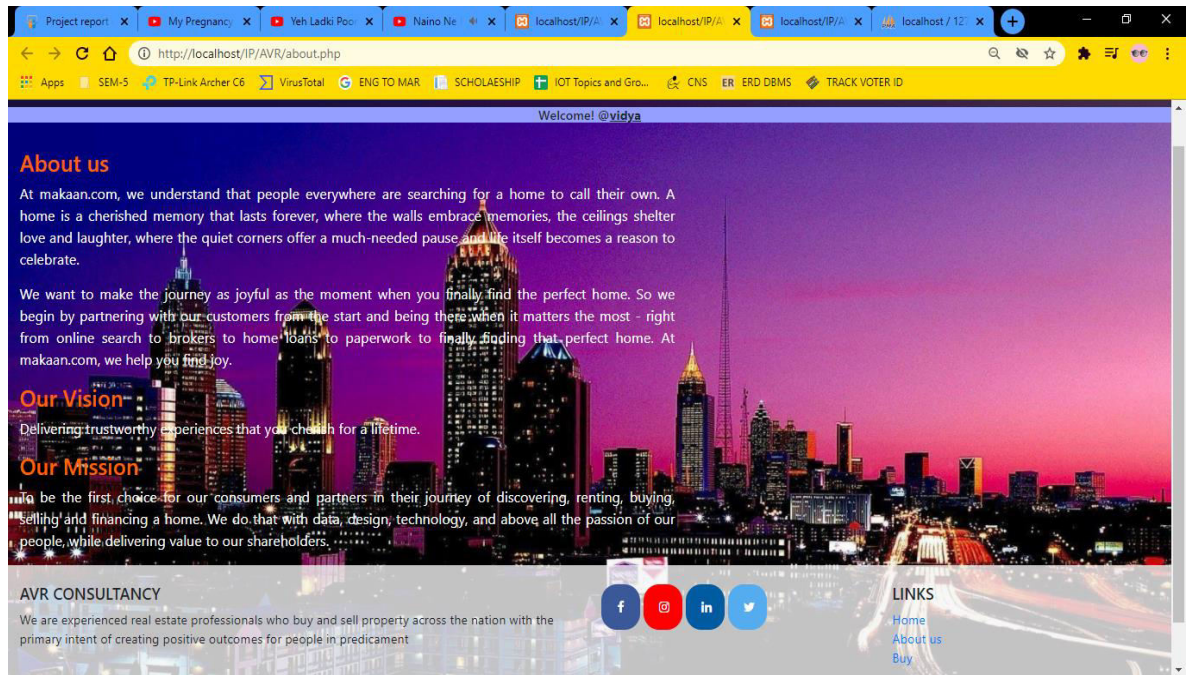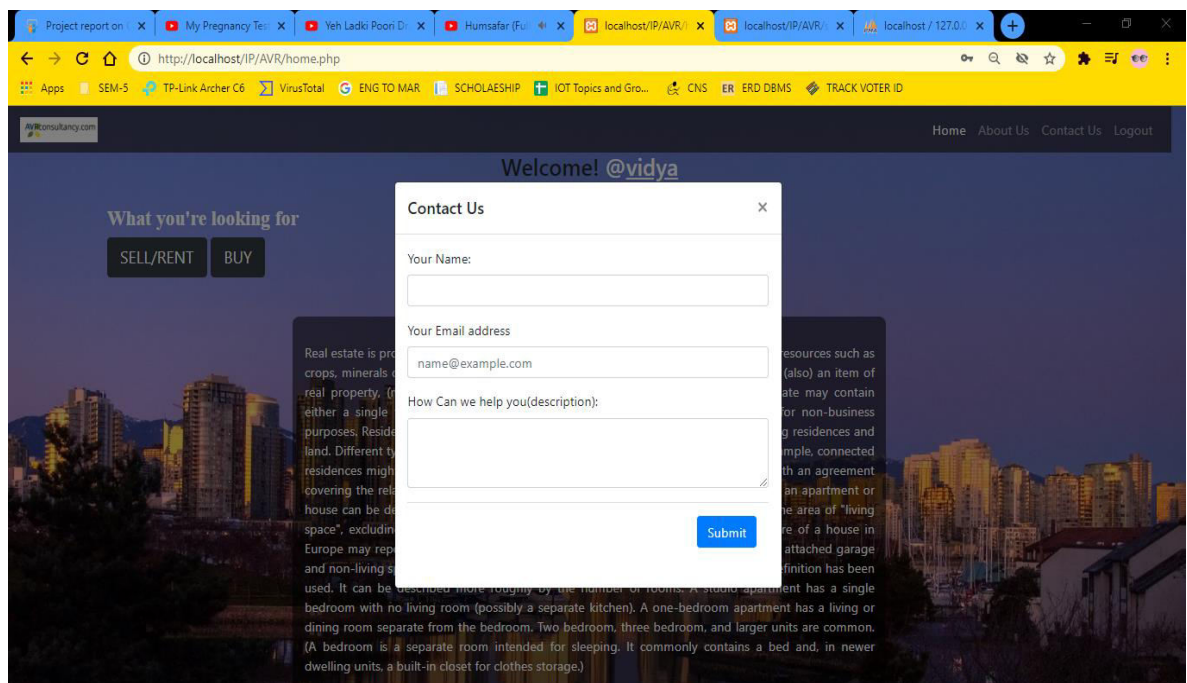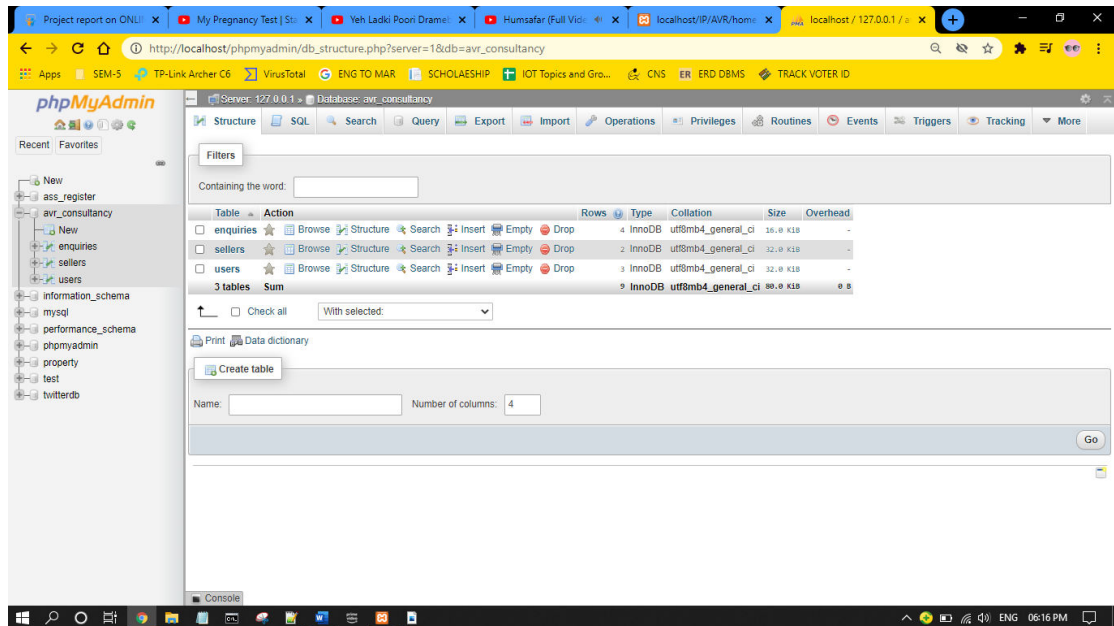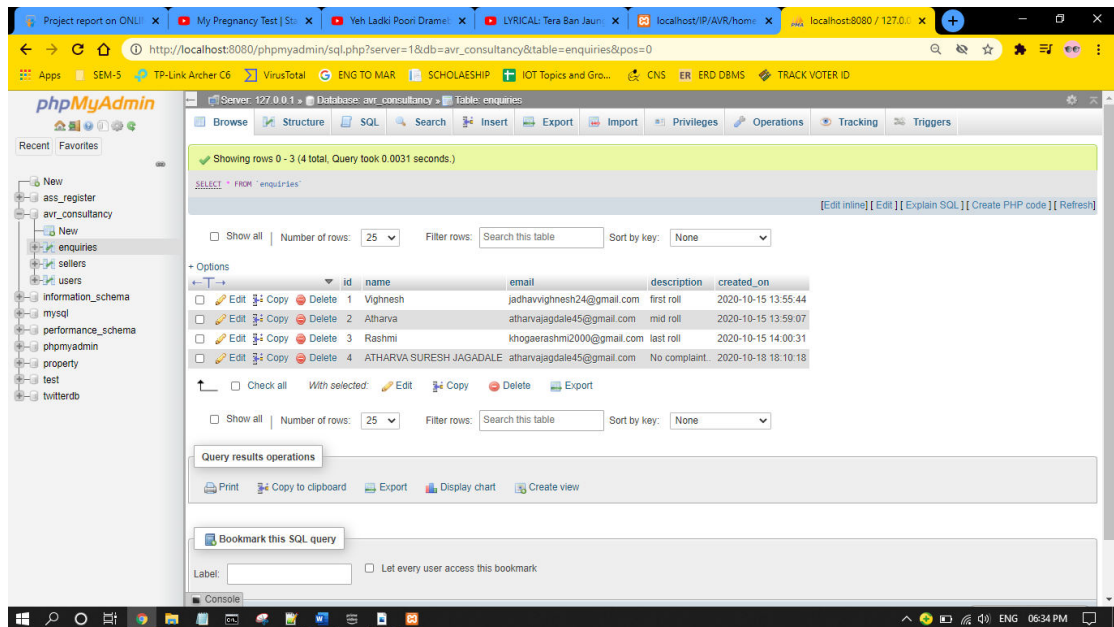
```
                <label for="exampleFormControlTextarea1">How Can we help you(description):
</label>
                <textarea class="form-control" id="exampleFormControlTextarea1"
rows="3"></textarea>
            </div>
          </form>
        </div>
        <div class="modal-footer">
          <button type="button" class="btn btn-secondary" data-dismiss="modal">Close</button>
          <button type="button" class="btn btn-primary">Save changes</button>
        </div>
      </div>
      </div>
    </div>
  </body>
</html>
```

4.2 Working:

Index.php

Login.php

Home.php

Sell.php

Buy.php

Aboutus.php

Contact us popup

Database connection

Enquiry table

Sellers table

Users table

Testing and Result

5.1 Test Cases:

In this project, we have used "UNIT TESTING". The reason behind that is to test all the workingg of project.

5.1.1 Unit Testing:

Unit tests are typically automated tests written and run by software developers to ensure that a section of an application (known as the "unit") meets its design and behaves as intended. In procedural programming, a unit could be an entire module, but it is more commonly an individual function or procedure. In object-oriented programming, a unit is often an entire interface, such as a class, but could be an individual method. By writing tests first for the smallest testable units, then the compound behaviors between those, one can build up comprehensive tests for complex applications. To isolate issues that may arise, each test case should be tested independently. Substitutes such as method stubs, mock objects, fakes, and test harnesses can be used to assist testing a module in isolation.

During development, a software developer may code criteria, or results that are known to be good, into the test to verify the unit's correctness. During test case execution, frameworks log tests that fail any criterion and report them in a summary.

Writing and maintaining unit tests can be made faster by using parameterized tests. These allow the execution of one test multiple times with different input sets, thus reducing test code duplication. Unlike traditional unit tests, which are usually closed methods and test invariant conditions, parameterized tests take any set of parameters. Parameterized tests are supported by TestNG, JUnit and its .Net counterpart, XUnit. Suitable parameters for the unit tests may be supplied manually or in some cases are automatically generated by the test framework. In recent years support was added for writing more powerful (unit) tests, leveraging the concept of theories, test cases that execute the same steps, but using test data generated at runtime, unlike regular parameterized tests that use the same execution steps with input sets that are pre-defined.

5.2 Test Cases:

Unit Testing Results:

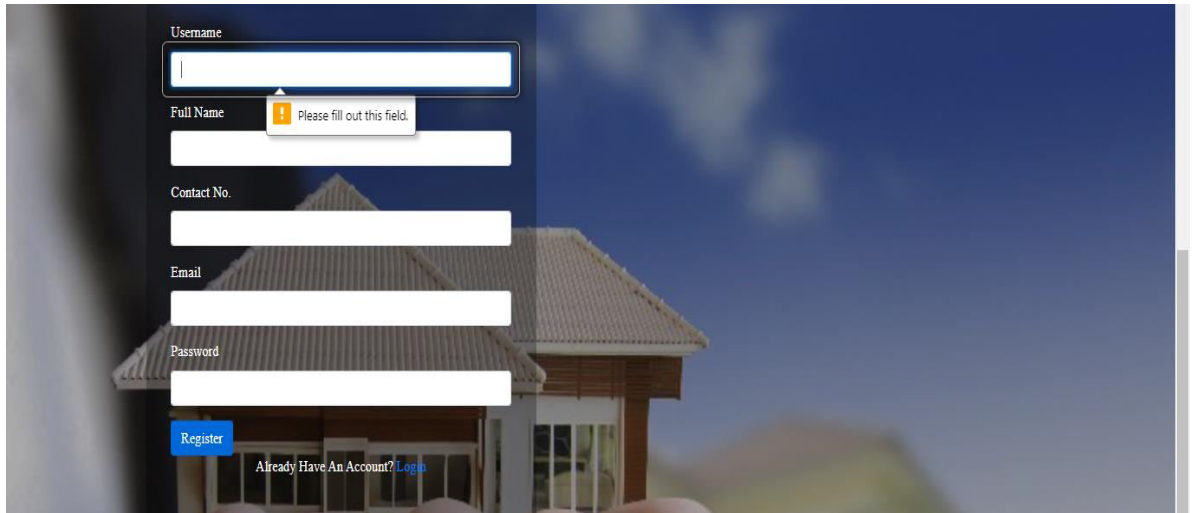| Test Case ID	Test Case Objective	Input Data	Expected Output	Actual Output	Status
TC1	Index.php file opening	Localhost with file path	Index.php file should open with register page	Index.php file is opened with register page	Pass
TC2	Login Form	Clicking on login button	It should open login page	Login page opened successfully	Pass
TC3	Registering account	Filling required details and click on register button	It should accept and save al details and create account	Account created successfully	Pass
TC4	Null details	Clicking on register or login button without fillung any details	It shoukd not open anything rather display message to fill details	Displayed message to fill details first after clicking directly	Pass
TC5	Storing data	Registering or uploading detials	It should save data for verification in xampp server	Data is saved successfully	Pass

| TC6	Logout button	Clicking on logout button	User should log off from site and display home page	User logged off successfully	Pass
TC7	Contact us filed	Clicking on contact us button	It should pop up contact us page / popup	Contact us pop up opened successfully	Pass
TC8	Links field in footer	Clicking on required link	It should open given named page	Given name page opened successfully	Pass
TC9	Social media field	Clicking on any given button	It should redirect on that media page or website	Redirected successfully on clicked media page	Pass
TC10	Responsive check	Minimizing or maximizing window	It should appear as per window size	Pages opened as per window size successfully	Pass

5.3 Test Case Results:

TC4: Null Details:

TC6: Logout button:
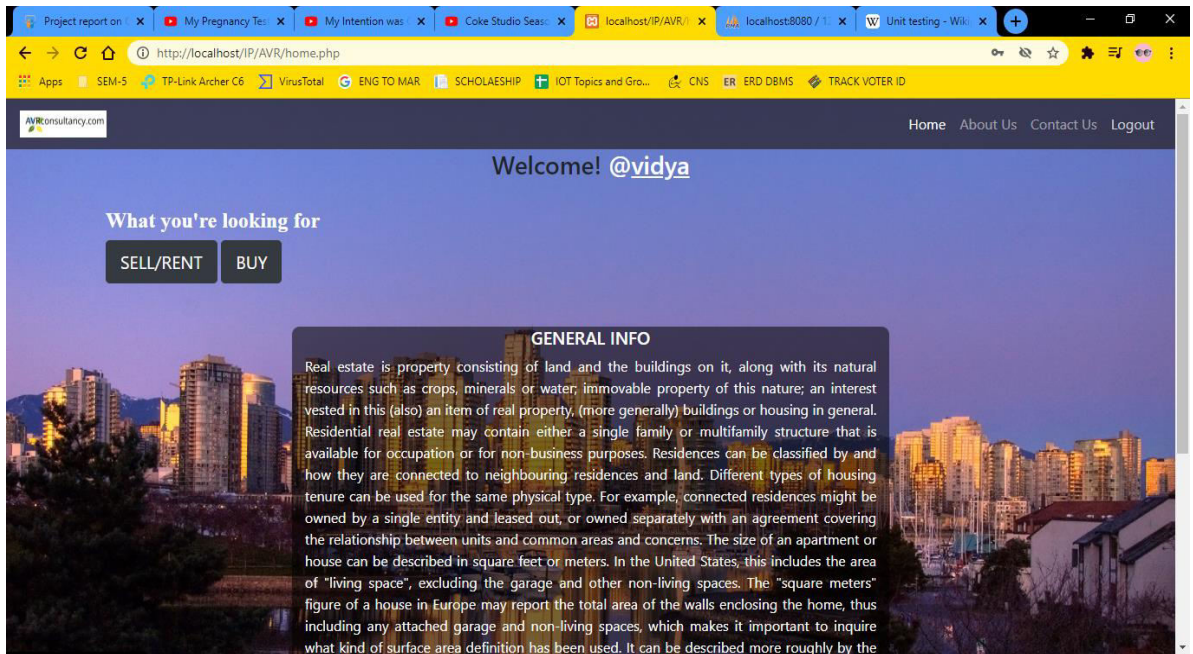
TC9: Social media filed:
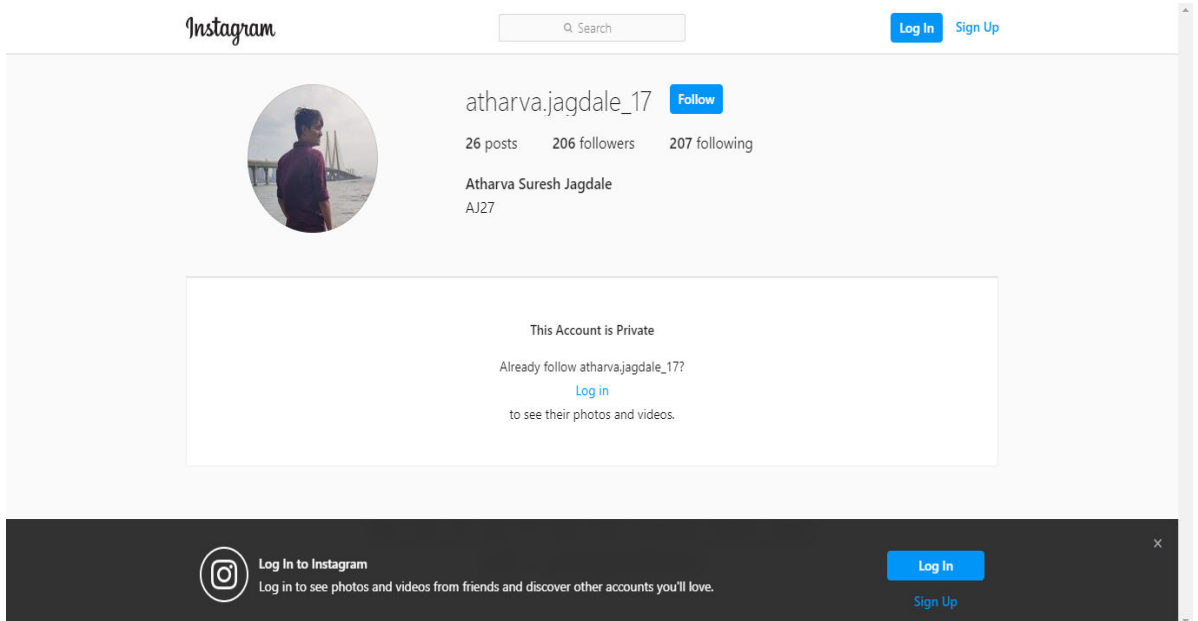
TC10: Responsive field:
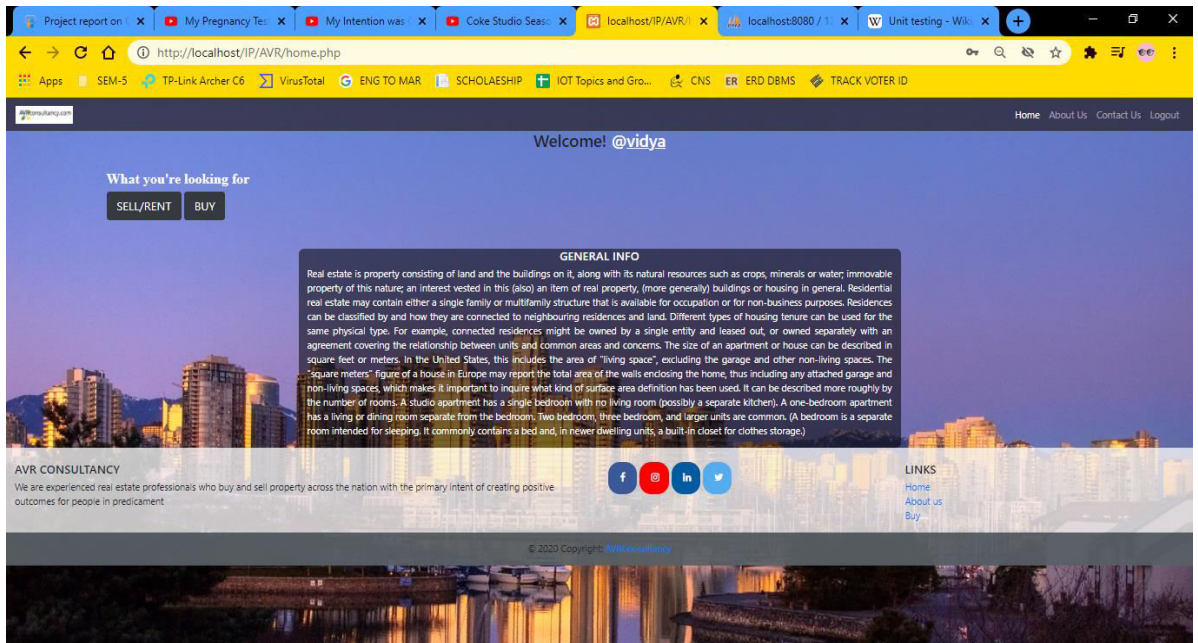
Pros and Cons

6.1 Pros

- Responsive.

- Cheap in cost.

- Easy to use.

- Reliable.

- Available anytime and anywhere.

- Requires less maintenance.

6.2 Cons

- If internet lost, then we can't use.

Application

7. Applications

- Real estate with more benefits and brokers.

Future Development

8. Future scope:

Due to the limitations of the scope of this project, there were a number of aspects of the design and realization of the prototype that we believe could be improved given additional time and resources. The following are our recommendations for anyone who is considering revisiting this design in the future.

- Inventory listing of flats and shops.

- Contracting procedures.

- Agency policies.

- Legal verification for every user.

- Furniture and interior work.

- Loan procedure formats and other payment information.

Conclusion

9. Conclusion

The website is to bring the real estate industry online and enabling real estate industry participants to benefit from the Internet. Site acts as an interface between Individuals, brokers and realtors. Here the user can advertise his property for buying or for selling. Loan option brings this website into the light as it allows the user apply loan online and does not have to worry about financial problems. Another feature is the official documentation which is used as means to certify the property is verified by the government.

The Commercial Real Estate Investment Market is a complex system of firms based in different sectors of the industry. The future of companies in this sector are most directly affected and tied to changes in global economic conditions. Depending on what the firms focus on, from Land and Development, Retail Shopping Centers, Industry/Office Space, or Apartments and Multi-family homes, there are many factors affecting their strategy, overall performance, and future.

References

10. References

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