HOUSE HUNT INDIA

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Project Report

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Contents

1 Website Details

1.1 Project Overview

This website, titled **HOUSE HUNT INDIA**, is a real estate platform that facilitates connections between property buyers, renters, and sellers. Users can search for properties, filter listings, view properties, and connect with property owners.

1.2 Technologies Used

- **Frontend**: HTML, CSS, JavaScript
- **Backend**: PHP and Swagger for API documentation
- **Database**: MySQL
- **Prototyping Tool**: Figma

1.3 Server and Database

- **Server**: Localhost (XAMPP server used for development)
- **Database**: MySQL, connected to the backend for persistent data storage

1.3.1 How to Run the Project from XAMPP

1. **Install XAMPP**:
   - Download the latest version of XAMPP from the official website: `https://www.apachefriends.org/index.html`.
   - Run the installer and follow the instructions to complete the installation.
   - Once installed, open the XAMPP Control Panel and start the `Apache` server (for running PHP) and `MySQL` (for database management).
2. **Place Your Project Folder in the XAMPP Directory**:
   - Navigate to the XAMPP installation folder (usually located in `C:\xampp\htdocs`).
   - Create a new folder named `project` (or any name you prefer) inside the `htdocs` directory.
   - Copy your project files (PHP files, assets, etc.) into this `project` folder.
3. **Run the Project Locally**:
   - Open a web browser and go to `http://localhost/project/`.
   - You should see your website running locally. If not, check the Apache server status in the XAMPP Control Panel and make sure it is running.

1.3.2 How to Install MySQL and Configure the Database

1. **Install MySQL**:

   - MySQL is bundled with XAMPP, so you don't need to install it separately. It is included as part of the XAMPP package.
   - Open the XAMPP Control Panel and start the `MySQL` service. This will start the MySQL database server.
   - Once MySQL is running, you can access it via phpMyAdmin for database management.

2. **Create a Database for the Project**:

   - Open phpMyAdmin by navigating to `http://localhost/phpmyadmin/` in your web browser.
   - In phpMyAdmin, click on the Databases tab.
   - Create a new database by entering a name (e.g., homefind) and clicking on Create.

3. **Import the SQL Database File**:

   - Locate the home_db.sql file (provided with your project).
   - In phpMyAdmin, select the database you just created (e.g., homefind).
   - Click on the Import tab, then select the home_db.sql file from your system.
   - Click Go to import the SQL script. This will create the necessary tables and schema in your MySQL database.

2 Week-wise Distribution of Work

Week 1: Project Idea and Site Map

In Week 1, all three team members contributed equally to brainstorming the project idea and designing the site map and the functionalities of the website.
The site map and the documentation of the idea details is in the following link Week 1 Site Map and the project idea document
Dataset

Week 2: Figma Prototype

Figma is a cloud-based design tool used for creating user interfaces (UI), prototypes, and collaborative design projects. It allows multiple users to work on the same project in real-time, making it ideal for team-based workflows. Figma supports vector graphics, text, images, and interactive elements, enabling designers to build both static designs and interactive prototypes. It also offers features like design systems, version control, and easy sharing, making it popular for UI/UX design, web, and mobile app development.
A click-through prototype of our website was created in Figma.
Click here to visit the figma prototype

Week 3: API Design

TIn one week, we (Venkatesh, Yogesh, and Tanish) successfully developed an **API** for the **HouseHunt India** website. The API enables users to create and manage profiles, properties, appointments, and notifications. They also designed and implemented a **database structure** to support the application.

- **API Endpoints:**
  - **User Management**: APIs to create new users, retrieve user details, and manage login functionality.
  - **Property Management**: APIs to create new properties, retrieve property details, and list all properties.
  - **Appointments**: APIs to book and cancel appointments between users and property owners.
- **Backend Logic:**
  - **Business Logic**: Handled the creation of users, properties, appointments, and managing the interactions between them (e.g., checking if a property is available for booking).
  - **User Authentication**: Implemented a login system with email and password validation.
- **Database Design:**
  - Created an **ER diagram** to define the relationships between **Users**, **Properties**, **Appointments**, and **Notifications**.

  - Designed and implemented the **database schema** to support the data structure.

In summary, the team completed the core API implementation, ensuring that users could manage their profiles, properties, and appointments efficiently, and also integrated a well-structured database to support the application. For more details and code, please refer to the Week 3 Folder

Work Split

Tanish:

- **Task:** Handled API documentation using Swagger, defining endpoints, parameters, and responses.
- **Importance:** Provides clear, standardized documentation for developers and ensures easier integration and testing.

Yogesh:

- **Task:** Developed backend API logic, including creating users, properties, and appointments.
- **Importance:** Core functionality of the API; ensures proper data handling, validation, and security.

Venkatesh:

- **Task:** Designed the database schema and ER diagram, defining entities like users, properties, and appointments.
- **Importance:** Ensures data integrity, optimization, and scalability for efficient database management.

Week 4: Frontend Development

The frontend of the HouseHunt India website is built using HTML, CSS, and JavaScript to create a responsive and engaging interface. HTML is used for structuring the content, CSS for styling and layout, and JavaScript for adding interactivity. Key features include a property listing page with filters for location, price, and property type, as well as a user profile page where users can manage their information, view saved properties, and schedule appointments. The frontend design focuses on smooth navigation and responsive layouts, providing an easy-to-use experience for users browsing the real estate options. he frontend pages for the HouseHunt India website were created using HTML, CSS, and JavaScript. The work was divided among the three team members as follows:

- **Venkatesh**
  - **Pages:** Home, Property Listings, Search, About Page, Profile
  - **Details:** Created the general browsing and navigation experience, along with key informational and user profile pages.

- **Yogesh**
  - **Pages:** Register, Login, Saved, Post a Property, Update Property
  - **Details:** Developed user account management and property management pages, enabling users to manage properties and account information.
- **Tanish**
  - **Pages:** Admin Registration, Admin Login, Admin Interface, Requests
  - **Details:** Created pages for the admin interface, focusing on admin functions and user requests for property management.

Each member's contributions helped complete a functional and user-friendly interface for the HouseHunt India website.

Week 5 and Week 6: Backend and Frontend Integration and Unit Testing

After integrating the frontend with the backend and the database, the following features were implemented and tested:

- **Tanish**
  - **Tasks:** Implemented login, registration, and profile dashboard functionalities.
  - **Details:** Developed the user authentication and account management features, integrating frontend and backend to allow users to register, log in, and manage their profiles seamlessly.
  - **Testing:** Conducted unit testing for login and registration modules to ensure secure and efficient user handling.
- **Yogesh**
  - **Tasks:** Developed property-related features, including posting a property, saving properties, and appointment booking.
  - **Details:** Integrated the frontend and backend for property management, enabling users to post new properties, save listings, and book appointments with property owners.
  - **Testing:** Performed unit testing on the property-related components to ensure data integrity and proper interaction between users and property listings.
- **Venkatesh**
  - **Tasks:** Created the admin interface, feedback to admin, and managed unit testing for the admin panel.
  - **Details:** Integrated the backend for admin functionalities, enabling admins to monitor user feedback, property listings, and appointments through a dashboard.
  - **Testing:** Conducted unit testing on admin functionalities to validate data handling, feedback mechanisms, and system controls for admin tasks.

Each team member ensured smooth integration between the frontend, backend, and database, along with rigorous testing, to provide a fully functional and reliable **HouseHunt India** website.

3 Conclusion

This documentation provides an overview of the real estate website project. Through collaborative effort and week-by-week goals, we successfully completed our project within time.