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Department of Computer Science and Engineering
Program: Bachelor of Science in Computer Science and
Final Project Report

Course No: CSE-3100

Course Title: Software Development – IV

Project Title: Fix It Flnder

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Submitted to

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Title:

FixItFinder : Your Go-To Platform for Home Maintenance and Repair Services.

Introduction:

In today's fast-paced world, managing household maintenance and repairs can be a daunting task. Homeowners often face challenges in finding reliable and skilled professionals to address everyday household issues such as electrical problems, plumbing leaks, and cleaning services. FixItFinder aims to solve this problem by providing a convenient and efficient platform that connects users with trusted service providers. Our goal is to make home maintenance and repair services accessible, reliable, and hassle-free for everyone.

Motivation:

Our motivation behind developing this app stems from a desire to streamline and simplify the process of finding reliable professionals for everyday problems. Whether it's a plumbing issue, electrical work, or general repairs, many people face difficulty in quickly connecting with trustworthy and qualified service providers. Traditional methods, such as word-of-mouth referrals or browsing through multiple websites, can be time-consuming and often unreliable.

Objectives:

- Develop a functional web application with core features to connect users with service providers.
- Implement an intuitive user interface for easy navigation and service requests.
- Ensure basic user authentication and authorization.
- Enable users to submit and manage service requests.
- Allow service providers to view and respond to service requests.

Features:

Given the less and more one-month timeframe and our current skill levels, we will focus on the following core features :

1. User Authentication:

- **User Registration:** Create a secure registration process that captures user details (name, email, password, user role).
- **User Login:** Implement a login system with session management.
- **Password Security:** Ensure passwords are hashed and stored securely.

2. Service Request System:

- **Service Categories:** Provide categorized listings of services (e.g., Electrical, Plumbing, Cleaning) for easy navigation.
- **Request Submission:** Develop a form for users to submit service requests, including fields for service type, description, preferred date, and contact details.
- **Request Management:** Implement a dashboard where users can view and manage their submitted requests, including status updates and history.

3. Service Provider Interaction:

- **Provider Dashboard:** Create a dashboard for service providers to view and respond to service requests.
- **Request Acceptance:** Allow service providers to accept or decline service requests and communicate with users through the platform.
- **Request Status Updates:** Enable providers to update the status of requests (e.g., pending, accepted, completed).

4. Basic User Interface:

- **Home Page:** Design a welcoming home page with navigation to different service categories and a search feature.
- **Responsive Design:** Ensure the platform is mobile-friendly and accessible on various devices using CSS and frameworks like Bootstrap.

5. Administrative Functions:

- **Admin Panel:** Develop a basic admin panel to manage users and service categories.
- **Monitoring and Reports:** Include basic monitoring tools and generate reports for service requests and user activities.

7. Security and Data Protection:

- **Data Validation:** Implement server-side validation for all user inputs to ensure data integrity.
- **Secure Communication:** Use HTTPS to encrypt data transmitted between the client and server.

Challenges:

Platform Design and User Experience: Creating an intuitive and user-friendly interface was challenging. Ensuring that users and professionals could easily navigate the app, post jobs, and respond to offers without confusion required thorough testing and iteration.

Backend Development and Database Management: Setting up the backend infrastructure to handle user posts, professional responses, and transactions required robust database design. Ensuring the system could efficiently store and retrieve data while maintaining performance was a technical challenge.

Time Management: Balancing the different stages of development, from designing the app to testing, bug fixing, and launching, while maintaining deadlines, was a

constant challenge. Prioritizing tasks and managing time efficiently was critical to meet project goals.

Impact:

The app streamlines the process of connecting users with skilled professionals, like plumbers and electricians, making it easier to find help for everyday problems. It boosts accessibility, saves time, and provides transparency by allowing users to compare professionals based on profiles and reviews.

Business Policy:

1. **Advertisement Space:** Allowing businesses to advertise their tools, materials, or services related to home repairs and maintenance on the platform. Charging a fee for ad placement on the app's homepage or within specific service categories.
2. **Premium Subscription:** Offering a premium subscription for professionals that includes benefits such as priority listing, unlimited bids, advanced analytics (e.g., how many times their profile was viewed), and promotional opportunities. This provides ongoing revenue from professionals who want to grow their visibility.
3. **Affiliate Partnerships:** Partnering with companies offering tools, materials, or insurance for home repairs and take a commission for every referral or sale made through the platform.

Contribution:

Ananto Nayan Bala (20210204028) (38%)	Prithwiraj Goswami (20210204050) (38%)	Atik Ahmed (20210204051) (24%)
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1. Create Post 2. Post accept/delete 3. Feed design 4. Linking with notification	1. Profile Works 2. Notifications 3. Customer and provider communication handling 4. Search page 5. Post interaction	1. Login/Sign-up 2. Landing Page 3. Logout
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*Members are sorted in ascending order by ID.

Tools and Technologies:

- **Development Environment:** XAMPP for local server setup.
- **Code Editor:** Visual Studio Code (VS Code).
- **Frontend:** HTML, CSS, Bootstrap.
- **Backend:** PHP.
- **Database:** MySQL

Conclusion :

FixItFinder aims to provide a practical solution for home maintenance and repair needs. By focusing on core functionalities and a user-friendly design, we intend to deliver a functional prototype within the given timeframe. This project will enhance our skills in web development and provide a solid foundation for future improvements.