



Indian Institute of Information Technology Guwahati

Software Engineering Lab (CS331): Project

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Title

Electronics Home Service Solutions

Category: Web Application

Purpose:

The purpose of this web application is to connect client and service care through a virtual platform without being present physically.

Our motive is to provide home service solutions to electronics problem 24*7 when clients can't reach out physically, especially in current pandemic scenarios.

Scope:

This platform is to make our lives more fulfilling to solve our electronics problem. It enables users to find any service professional related to electronics problem. Some of them are listed below:

- **Students Accessories**

1. Laptop
2. PC
3. Mobile

- **Daily use Home Appliances**

1. TV
2. Fridge
3. Washing Machine
4. AC

- **Kitchen Appliances**

1. Microwave
2. Mixer
3. Induction

4. Dishwasher

• Home Decoration Items

1. LED Lights
2. Wall Lamps

INTRODUCTION:

It contains the following subcategories.

Existing Systems:

The existing system is manual based which involves customers to physically reach out for query resolution. In the existing system there is no specialised service other than the brand relating to damaged appliances. Customers have to reach out to generalised electronics shops for all types of appliances.

1. There is no unified platform to search for a specific electronic product solution.
2. Response time of the query solution is very hectic and time consuming.
3. The websites are not user friendly.
4. As the competition is very less in the market, the cost of service is very high due to the monopoly of brands.
5. The paperwork creates one more problem of time consumption.
6. There is no proper integration between the online purchased products and offline service care for online products.
7. Local service care solutions usually uses cheap materials to maximise their profits which affects longevity of products.

PROPOSED SYSTEM:

Our Proposed model aims to provides seamless integration between the customers and the specialised service providers. It mutually benefits both clients and service providers.

Detailed components involved in our proposed system are briefly described below.

User Login:

There will be a secured login system to maintain user information.

Service Provider Registration:

There will be a secured registration system for service providers. They will be registered after successful validation which involves government issued guidelines to minimise fraud issues in future.

Admin Access:

Administrator will be able to access/analyse all recorded sessions between customers and service providers to keep them in check.

Authentication:

User authentication provided in this website will help in maintaining the data privacy and security.

Storage:

Keep an eye on the records of transactions, details of service providers and users which will make the job easier.

User-friendly Interface:

Provides a user-friendly interface, by using search-based optimizations.

Advantages:

a. Clients:

These are the following advantages from client perspective:

- i) On Demand Service:** We provide service at your doorsteps with 24X7 availability.

- ii) **Time Saving:** Saves a lot of time by minimising query response time and providing door to door service.
- iii) **Cost Effective:** Existing local service care uses cheap alternatives for repair works but out trusted service providers will be using original repair parts in the same amount of money leading expenditure cost effective for clients.
- iv) **Hassle Free Choice:** Being a comprehensive platform it provides all the facilities in one place thus eliminating users' struggle to find them in various places.

b. Service Care:

These are the following advantages from service care perspective:

- i) **More opportunities:** The service providers will get more clients on one platform.
- ii) **Flexibility:** Working part time is possible because of the flexible nature of the process.
- iii) **Effective Communication:** Having better communication with clients thus coordinating together to decide on a better service plan.

FUNCTIONAL REQUIREMENTS:

- Users must have a valid user id and password to login thus creating individual profiles.
- Users can choose from a variety of service providers based on various quality thresholds.

- Quality standards will be defined according to price, availability, ratings etc.
- Administrators can register new service providers by checking their education details and experience.
- There will be a user feedback system to provide ratings to service providers.
- Users can also get assistance from the specialised service providers.
- Users will have an option to book a particular service provider in specific time slots according to their availability.
- Warranty of products is also concerned in the website.
- It will have FAQs options so that users can post their queries regarding service providers, appliances etc.
- It has direct mail to mail communication.
- Video Calling feature is enabled for better consultation.
- Website contains blog page which provides latest news about company.

NON-FUNCTIONAL REQUIREMENTS:

- Secure access of confidential data (user's details).
- Maximum time availability.
- Service provider registration can only be accessed by administrators only.
- Time to time update of website for smooth service of users.
- Maintainability, Manageability, Reliability, Usability.

SOFTWARE TOOLS:

- **Database Server:** MongoDB

- **Client:** Any web browser
- **Development Tools:** Microsoft VS Code, Sublime Text
- **Programming Language:** HTML, CSS, JS, NodeJS, React, Express

DEPLOYMENT:

- **Operating System Server:** Window 7/8/10/11, Linux, UNIX

HARDWARE SPECIFICATION:

- **Processor:** Intel Core i7 (8th Generation)
- **RAM:** 8GB
- **Hard Disk:** 1TB