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COLLEGE OF ENGINEERING
(AUTONOMOUS)

MOBICARE

20INMCA509 - Mini Project 2

Scrum Master

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DEPARTMENT OF
COMPUTER APPLICATIONS

ABSTRACT

MobiCare is a comprehensive online platform catering to all your mobile needs, offering a seamless experience for mobile services and purchasing Mobile accessories. With three distinct modules – Admin (shop owner), Client, and Technician– the platform ensures efficient management and communication among all service folks who fix the phone complaints.

The admin module, shop owners can manage their store and add accessories. Clients, represented by users, can easily submit service requests, track repairs, and browse a diverse selection of phone accessories, as well as buy accessories and pay for services. And the user can also sell old phone. Technician, responsible for phone repairs and issue resolution, efficiently handle service requests, ensuring timely solutions. They can also manage sale of old phones.

Key features include a user-friendly interface for submitting service requests, real-time tracking of repair progress, and secure payment options for both services and accessories. The platform facilitates seamless communication between clients and Technician, enhancing customer satisfaction.

With MobiCare, users can conveniently access a wide range of mobile services and accessories, streamline the repair process, and enjoy a hassle-free shopping experience, all from the comfort of their own devices.

Mini project:

MODULES

1. Admin (shop owner)
2. User
3. Technician

1. Admin Module

- Login
- Profile updation
- Manage Accessories: By adding, removing and updating mobile accessories.
- Manage Technician
- View Service Requests
- View Service Payment status
- Manage booking for the accessories

- View Payment status of booked accessories
- Manage Customer Feedback
- Logout

2. **User Module**

- User Registration
- Login
- Profile Updation
- Service Request Submission
- View the status of service request
- View status of repairing the complaints from technician
- View the history of service requests
- View the history of ordered product
- Payment
- Purchase Accessories
- Sell their old phones
- Feedback
- Logout

3. **Technician Module**

- Login
- Profile updation
- Manage the service request
- Schedule the services
- Update the status of repairing the complaints to user
- Manage the sale of old phones
- View the history of services done
- Update the status of payment
- View client Feedback
- Logout

Main Project

Features:

- For analyzing the sale of accessories in a month using ml
- To share the accessories information through social media.
- To give recommendation based on the user service request.
- Voice search

- Use AR for representing the small services (common for all phones) the user can do in their home after buying the accessories.

Technologies Used

- Frontend: HTML, CSS, JS, JQuery
- Backend: Django

FEASIBILITY STUDY

Feasibility is defined as the practical extent to which a project can be performed successfully. To evaluate feasibility, a feasibility study is performed, which determines whether the solution considered to accomplish the requirements is practical and workable in the software. Information such as resource availability, cost estimation for software development, benefits of the software to the organization after it is developed and cost to be incurred on its maintenance are considered during the feasibility study. The results of the feasibility study should be a report that recommends whether or not it is worth carrying on with the requirements engineering and system development process.

MobiCare is a comprehensive online platform designed to cater to all mobile needs, offering a seamless experience for mobile services and purchasing mobile accessories. The platform features three distinct modules: Admin (shop owner), Client, and Technician, each ensuring efficient management and communication among all service participants who handle phone complaints.

- Admin Module: Shop owners can manage their store, add accessories, and oversee sales. They also have access to analytics and reports to monitor business performance.
- Client Module: Users can submit service requests, track repairs, browse and purchase a diverse selection of phone accessories, pay for services, and sell old phones.
- Technician Module: Technicians are responsible for phone repairs and issue resolution. They handle service requests, manage the repair process, and facilitate the sale of old phones.

The objective of the feasibility study is to establish the reasons for developing the software that is acceptable to users, adaptable to change and conformable to established standards.

Based on the feasibility study, the implementation of the MobiCare platform is highly recommended. Without MobiCare, the organization would face inefficiencies, customer dissatisfaction, and potential revenue loss due to manual processes and fragmented systems. The platform addresses these issues by automating service requests, enhancing communication, providing real-time updates, and streamlining inventory and sales management.

MobiCare directly contributes to business objectives by improving operational efficiency, enhancing customer experience, driving revenue growth, and offering valuable data insights. It can integrate with existing systems although it may require new technologies like cloud computing and real-time databases, necessitating training and support. The system must support essential functions like service requests, repair tracking, inventory management, secure payments, and communication, while non-mobile related products and legacy systems need not be prioritized.

Overall, MobiCare promises significant benefits, making it a feasible and valuable investment for the organization.

Types of Feasibility

Various types of feasibility that are commonly considered include technical feasibility, operational feasibility, and economic feasibility.

Technical feasibility assesses the current resources (such as hardware and software) and technology required to accomplish user requirements within the allocated time and budget. For MobiCare, this involves evaluating the capabilities and stability of the technologies needed to support its three modules: Admin (shop owner), Client, and Technician. Each module ensures efficient management and communication among all service participants handling phone complaints.

Evaluation for MobiCare:

- **Resources and Technology:** Assess current hardware and software to ensure they support the development and maintenance of the platform.

Review the current IT infrastructure, including servers, networking equipment, and software systems, to determine if they are capable of supporting the new MobiCare platform. Ensure that the hardware has sufficient capacity to handle the expected load, including the processing of service requests, real-time tracking, and secure transactions.

- **Team Skills:** Evaluate the technical proficiency of the development team in handling the required technologies. These includes skills in web development frameworks, payment gateway integration.

  Training and Development: Address any skill gaps within the team by providing training sessions, online courses, or workshops. Ensure that team members are updated on the latest technologies and development practices.

- **Interoperability:** Confirm that the system can integrate with other existing systems for seamless data transfer.

  Data Migration and Synchronization: Plan for the migration of existing data from legacy systems to the new platform. Implement synchronization mechanisms to maintain data integrity and consistency across different systems, ensuring that all modules (Admin, Client, Technician) operate cohesively.

Conclusion: Technical feasibility is achievable given the stability of the required technologies and the proficiency of the development team.

Operational feasibility assesses the extent to which the required software can solve business problems and meet user requirements. It involves evaluating whether the software will function effectively once developed and be operable upon installation. This feasibility is closely tied to human resources, including the software development team and end-users.

Evaluation for MobiCare:

- **User Requirements:** Identify and prioritize user requirements.

  Easy Submission of Service Requests: Clients need a simple and intuitive interface to submit service requests. This includes features like clear navigation, minimal form fields, and instant feedback to ensure a smooth user experience.

  Purchasing Accessories: The platform should offer a wide selection of phone accessories. Clients should be able to browse products with detailed descriptions, images. A secure and seamless checkout process is crucial.

- **Solution Acceptability:** Validate that the proposed solution (MobiCare platform).

  Meeting User and Organizational Needs: The MobiCare platform should address the needs of both users and the organization. For users, it should provide a convenient way to request services, track repairs, and purchase accessories. For the organization, it should streamline operations, improve inventory management, and enhance customer satisfaction.

  Usability Testing**:** Conduct usability tests to ensure that the platform is intuitive and easy to use. This involves gathering feedback from potential users to identify and resolve any usability issues

- **User Adaptation:** Assess user adaptability to the new platform through feedback.
- **Alternative Solutions:** Explore and compare other potential solutions to ensure the chosen one is optimal.

  Evaluating Other Solutions: Compare MobiCare with other potential solutions available in the market. Assess the features, user experience, and costs associated with each alternative.

  Optimal Choice: Ensure that the chosen solution (MobiCare) offers the best combination of features, user experience, and cost-effectiveness. Consider factors such as ease of implementation, scalability, and long-term benefits.

Conclusion: Operational feasibility is high, given the clear benefits and user-centric design of the platform.

Economic feasibility determines whether the required software is capable of generating financial gains for an organization. It involves assessing various costs, including those for the development team, hardware and software, and ongoing maintenance, alongside potential financial benefits.

Evaluation for MobiCare:

- **Development Costs:** Estimate the total development costs, including hiring and training the development team, purchasing necessary hardware and software, and ongoing maintenance.
- **Financial Gains:** Project potential financial gains from improved efficiency, increased sales of accessories, and enhanced customer satisfaction.
- **Budget Alignment:** Ensure that the project stays within the allocated budget while meeting the objectives.

Conclusion: Economic feasibility is promising, with potential for significant long-term financial benefits and a manageable initial investment. The detailed evaluation of development costs, including hiring, training, hardware, software, and ongoing maintenance, provides a clear picture of the financial requirements. The projected financial gains from improved operational efficiency, increased sales of accessories, and enhanced customer satisfaction indicate strong revenue potential. By ensuring the project stays within the allocated budget through careful cost management and contingency planning, the MobiCare platform is positioned to deliver substantial economic value to the organization. Overall, the economic aspects of the MobiCare project support its feasibility and underscore its potential as a valuable investment.

Based on the feasibility study, the development of the MobiCare platform appears to be practical and workable. The technical, operational, and economic analyses all indicate that the project is feasible.

REQUIREMENT GATHERING

Date: 18-06-2024

1. **Project Overview**:

   MobiCare is an all-in-one online platform designed to address the diverse needs of mobile phone users, encompassing everything from managing phone repairs to purchasing accessories. It is segmented into three main modules: Admin, Client, and Technician, each tailored to facilitate different aspects of mobile service management and customer interaction.

   In the current market, mobile phone users face several challenges when it comes to managing their devices, such as:

   - **Fragmented Services**: Users often need to visit multiple stores or websites to buy accessories, get repairs done, and sell old phones.
   - **Lack of Transparency**: There's often a lack of clarity regarding the status of repair services, leading to customer frustration.
   - **Inefficient Communication**: Poor communication between service providers and customers can result in misunderstandings and delays.
   - **Payment Security Concerns**: Users are often wary of making payments online due to security concerns.

   Main Objectives are listed below:

   - **Centralized Platform**: To create a comprehensive platform where users can access all mobile-related services, from repairs to purchasing accessories, and selling old phones.
   - **Enhanced User Experience**: To provide a user-friendly interface that makes it easy for clients to submit service requests, track repairs, and purchase accessories.
   - **Efficient Service Management**: To enable shop owners (admins) to efficiently manage their inventory, services, and customer interactions.

- **Effective Communication**: To facilitate seamless and effective communication between clients and technicians, ensuring that service requests are handled promptly and satisfactorily.
- **Secure Transactions**: To implement secure payment options for all transactions, ensuring the safety and trust of the users.

2. **System Scope**:

MobiCare is proposed as a full-scale implementation aimed at providing a comprehensive, user-friendly platform for managing mobile phone services and purchasing accessories. The goal is to deliver a complete, ready-to-market solution that can be deployed for actual use by mobile phone users, shop owners, and technicians.

Extent of the System

Full-Scale Implementation:

- Commercial Use: The system is designed to be a fully functional, commercial-grade platform ready for deployment in real-world scenarios.
- End-to-End Solution: It encompasses all necessary features and functionalities for a seamless user experience, from service management to accessory purchasing.
- Scalable Infrastructure: Built to handle a large number of users and transactions, ensuring scalability as the user base grows.

Real-World Application:

- User Engagement: Targeted towards actual mobile phone users who need a reliable platform for repairs and accessory purchases.
- Business Integration: Designed for shop owners to manage their stores efficiently, integrating with existing business processes and enhancing service delivery.
- Technician Utilization: Provides tools and features for technicians to manage repair requests, ensuring timely and effective service.

Comprehensive Features:

- Service Management: A robust system for submitting, tracking, and resolving service requests, ensuring high customer satisfaction.
- Accessory Marketplace: A wide selection of mobile accessories available for purchase, complete with secure payment options.
- Communication Tools: Integrated messaging and notifications to facilitate communication between clients and technicians.
- Administrative Control: Extensive management tools for shop owners to oversee inventory, services, and transactions.

3. **Target Audience**:

MobiCare is designed to cater to a diverse range of users involved in the mobile phone service and accessory market. The main user groups are as follows:

- **Clients (Mobile Phone Users):**
  Individual Users: People who own mobile phones and need services such as repairs, accessory purchases, or want to sell their old phones.
- **Shop Owners (Admins):**
  Mobile Retail Store Owners: Individuals or businesses that own mobile phone stores and need a platform to manage their inventory, services, and customer interactions.
- **Technicians:**
  Repair Technicians: Individuals who perform the actual repair work and need tools to manage their tasks, update repair statuses, and communicate with clients.

4. **Modules**:

There are three modules in this system:

- Admin (shop owner)
- User
- Technician

<u>Admin Module</u>

- Login
- Profile updation

- Manage Accessories: By adding, removing and updating mobile accessories.
- Manage Technician
- View Service Requests
- View Service Payment status
- Manage booking for the accessories
- View Payment status of booked accessories
- Manage Customer Feedback
- Logout

User Module

- User Registration
- Login
- Profile Updation
- Service Request Submission
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- Payment
- Purchase Accessories
- Sell their old phones
- Feedback
- Logout

Technician Module

- Login
- Profile updation
- Manage the service request
- Schedule the services
- Update the status of repairing the complaints to user
- Manage the sale of old phones
- View the history of services done
- Update the status of payment
- View client Feedback
- Logout

5. **User Roles**:

   MobiCare includes several distinct user roles, each with specific permissions and access levels to ensure efficient and secure operation of the platform.

   Admin (Shop Owner)

   Permissions and Access Levels:

   - Full Access: Complete control over the platform's administrative functions.
   - Manage Inventory: Add, update, and remove mobile accessories and parts.
   - Service Management: Oversee all service requests.
   - Financial Transactions: View and manage payment transactions and financial reports.

   Client (Mobile Phone User)

   Permissions and Access Levels:

   - Service Requests: Submit requests for phone repairs and track their status.
   - Purchase Accessories: Browse and purchase mobile accessories.
   - Payments: Make secure payments for services and accessories.
   - Sell Old Phones: List old phones for sale and manage listings.
   - Profile Management: Manage personal account details and preferences.

   Technician

   Permissions and Access Levels:

   - Service Management: Access and manage assigned service requests.
   - Update Repair Status: Update the status of ongoing repairs and notify clients.
   - Sell Old Phones: Manage the refurbishment and sale of old phones.
   - Profile Management: Manage personal account details and work schedule.
   - Financial Transactions: View and manage payment transactions and financial reports.

6. **System Ownership**:

MobiCare is owned by an organization. This organization is responsible for the overall management, maintenance, and development of the platform. The ownership structure is designed to ensure the system's continuity, scalability, and support for its users.

7. **Industry/Domain**:

MobiCare is related to the **retail and mobile telecommunications** industry domain. It primarily focuses on providing services related to mobile phone repairs, sales of accessories, and management of old phone sales. This domain involves aspects of e-commerce, customer service and technical support tailored specifically for the mobile phone market. The platform aims to streamline operations for both users and businesses within this industry, offering convenience and efficiency in mobile service management and accessory purchasing.

8. **Data Collection Contacts**:

- Akhil Chandran, Mobile Technician, 7356400811
- Abhikanth M S, Mobile Technician, 9633648535

9. **Questionnaire for Data Collection**:

1. Do **you currently have a website for your phone repair services?**

No, we do not currently have a website dedicated to our phone repair services.

2. **If you were to get a website, what essential features would you like it to have?**

We would prioritize features such as:

a. Service request submission forms with tracking capabilities.
b. Online payment integration for service fees.
c. A mobile-friendly interface.
d. Clear service descriptions and pricing.
e. Delivery services
f. Warranty card details can be provided to the user.

3. What are the main challenges you face without having a dedicated website?

One of the main challenges is the inability to provide detailed information about our services and pricing in a centralized and accessible manner. Managing service requests and appointments can also be more cumbersome without a dedicated online platform.

4. **How do clients usually find and contact you for repair services?**

   Clients typically find us through recommendations from friends or family, or they discover us on social media platforms where we actively post about our services.

5. **What information about your services do you think is most important to display on a website?**

   Key information would include our range of repair services, pricing details, turnaround times, contact information, and customer testimonials.

6. **How important is having a mobile-friendly website for your business?**

   It's crucial because many of our client access information and services through their smartphones. A mobile-friendly website would enhance user experience and accessibility.

7. **Would you like a feature that allows clients to track the status of their repairs online?**

   Yes, integrating a feature for clients to track the status of their repairs online would greatly benefit our business by enhancing transparency, improving customer satisfaction, and boosting operational efficiency. It would provide clients with real-time updates on their repair progress, reducing the need for frequent inquiries and increasing trust.

8. **What types of phones do you primarily service (e.g., brands, models)?**

   We service a variety of mobile phone brands and models, including popular ones like Apple (iPhone series), Samsung (Galaxy series), Huawei, Xiaomi, OnePlus, and others.

9. **What is the average turnaround time for a typical repair?**

   The average turnaround time for a typical repair varies depending on the complexity and nature of the repair. For standard repairs, such as screen

replacements, battery replacements, or software fixes, the turnaround time is generally within a few hours to a couple of days. For more complex repairs or issues that require parts ordering, the turnaround time may extend up to a week or longer.

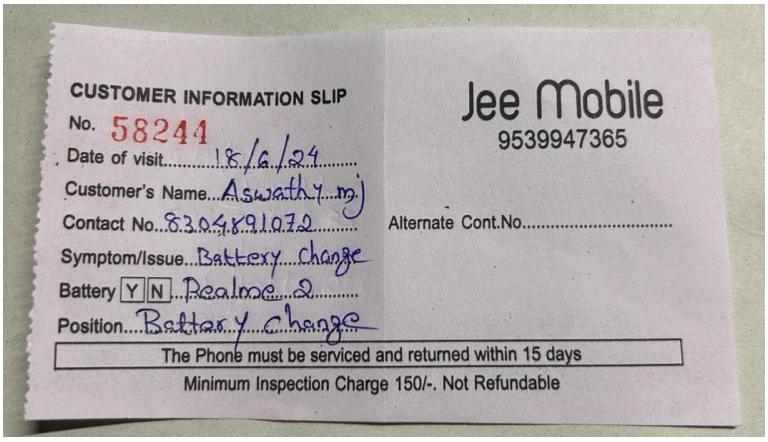
10. **What is your policy on warranty or guarantees for repairs?**
    Warranty is not provided for all services. And for the battery and display services the warranty cards are normally provided. And the validity is about one month.

11. **In this shop any website is used for purchasing accessories and phones?**

    No, there is no website are available for purchasing phones and accessories. Only offline services are available.

12. **If a person did not need the phone after the service has been done then what is the next step you will be taking?**

    When the person gives us the phone for service he should definitely need to agree to the terms and condition. And in the terms and condition it is mentioned that if the user did not buy the phone after service is completed, the phone will be sold after 15 days.


CUSTOMER INFORMATION SLIP

No. 58244

Date of visit 18/6/24

Customer's Name Aswathy mj

Contact No. 8304891072 Alternate Cont.No.

Symptom/Issue Battery change

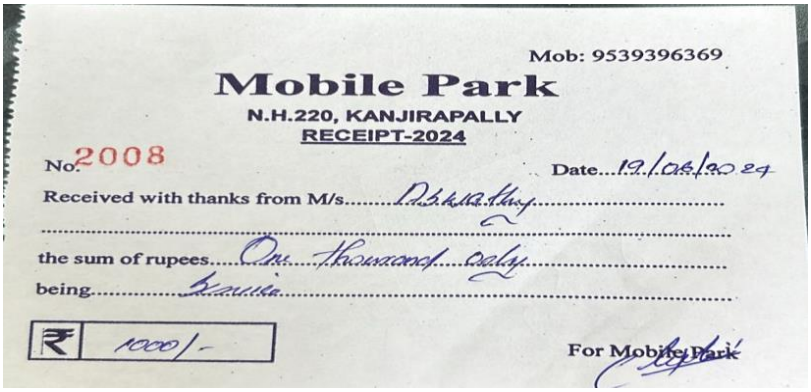
Battery Y N Realme 2

Position Battary change

Jee Mobile
9539947365

The Phone must be serviced and returned within 15 days

Minimum Inspection Charge 150/-. Not Refundable



Mob: 9539396369

Mobile Park

N.H.220, KANJIRAPALLY

RECEIPT-2024

No. 2008 Date... 19/08/2024

Received with thanks from M/s..... Aswathy .....

.....

the sum of rupees..... One thousand only .....

being..... Charge .....

₹ 1000/-

For Mobile Park