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**2 Overall Description**

**2.1 Product Perspective**

This project is focused on how on-demand apps have disrupted majority of traditional industries. From the way we travel, eat, shop, and even date, all has undergone a tremendous change. So, why not our household chores and errands? After all we all need an Irona in our lives who can complete our household chores and run our errands in a jiffy. Before we understand the nitty gritty of on-demand home services apps, let us start from the basic at what exact services that it provides. As the name suggests it serves as a platform where you can hire professionals for all your household chores at your fingertips. Like all other on-Demands it is inbuilt with all the essential functionality. Got a leakage issue at home, hire a plumber near your locality who will fix it in no time. Got issues with your AC, call an air conditioning expert who will fix your AC in just a matter of few minutes. Similarly, these apps help in fixing problems of carpentry, house cleanliness, home appliances, and all other household problems. The home service marketing niche in India is still in the nascent stage. With Indian cities seeing a significant growth.

Service Provider System is a generic and open source web based software and this not dependent any kind of product this product is totally independent and self-contained. Without any hustle customer can choose the service according to his convenience. This product needs to store the data. For that, a database will be used. The web portal will communicate with a database. The web portal will add and modify data. All of the database communication will go over the Internet.

This software provides a holistic view of the processes involved in delivery of input followed by different customer with respect to the different service of various service provider managed by the administrator of the system for a better decision making and delivery.

**2.1.1 System Interfaces**

The Service Provider System has three active actors and one co-operating system. The Customer, Service provider, Help Desk and System Administrator and Payment Service Provider are connected with the online system through the internet.

**2.1.2 User Interfaces**

1. UI for default home screen with many options
2. UI for browsing service
3. UI for new registration
4. UI for login authentication
5. UI for add /update Service info
6. UI for add /update profile info
7. UI for book a service
8. UI for book a tender
9. UI for payment purpose
10. UI for refund claim purpose
11. UI for feedback purpose
12. UI for asking support/help
13. Chatting window for user with support team members

**2.1.3 Hardware Interfaces**

The system must run over the internet, all the hardware are required to connect internet, will be hardware interface for the system. As for e.g. Modem, WAN-LAN, Ethernet Cross-Cable. Suitable for devices with screen width greater than 720px. Landscape Layout Mode is used to develop the page. Minimum requirements for smooth functioning will be a Dual Core processor with 512MB of RAM.

**2.1.4 Software Interfaces**

The system is on server so it requires the any scripting language like PHP, HTML, CSS, JavaScript etc. The system require Data Base also for the store the any transaction of the system like MYSQL, Firebase etc. system also require DNS(domain name space) for the naming on the internet. At the last user need web browser for interact with the system.

ES5 and above Compatible Browsers :

Microsoft Edge 18 and above, Mozilla Firefox 67 and above, Google Chrome 75 and above, Opera 62 and above, Safari 12.1 and above, Not compatible with Internet Explorer.

**2.1.5 Communication Interfaces**

NIL

**2.1.6 Memory Interfaces**

Memory constraints are Minimum because it’s a web based application. Maximum 10MB of free space for cached data storage by browser in Secondary Memory.

**2.1.7 Operation Interfaces**

The proposed system consists of actors consisting of a worker and a client. The administrator has initial rights to access and modify the website, where it needs to login to do so. Then the administrator comes to the customer who wants to take advantage of our services, it has to be before the registration and login process. A client can upload some data describing the services if necessary. Once a request is made, it can forward it to the payment process and rate the customer service to confirm the service once the service is over. And in the worst case if customers are not satisfied with the service they can proceed with the return policy process. Finally a service provider that provides a service where they should also go through the registration and login process and proceed with the uploaded files and inform them to provide the service once the service is confirmed. Is done and when done after service.



Figure represents architectural design of the system where the mobile application which is connected to the server and further connected to the database via mobile internet connection. Here the user initiated operations are:

1. User can browse insurance.
2. Existing users can login onto the system.
3. New user can register into the system.
4. A logged in user can book any service and tender.
5. A logged in user can cancel any booked service.
6. User can add/update their info and also can upload necessary documents.
7. User can make payment of the required amount through this portal.
8. User can ask for help from the support team.
9. User can claim refund if booking is cancelled.

Periods of interactive operations are:

A. User can browse any time, it doesn’t depend whether the user is logged on or not.

B. There is no limitation on how much time a user can spent on this system.

C. There is a specific time allotted for filling up the new registration form, if a user cannot fill the form under the specific time instance he/she have to fill the form again.

D. In the time of booking a service user must have to give location and description at that time for proceed.

E. If a user ask for the support to the support team after granting the support the user must have to respond between 2-3 days, otherwise the request will be cancelled automatically.

F. If a user claim for his/her refund then within 48 hours the help desk will contact with the customer directly. Here the system is not responsible for any decision.

Backup and recovery operations are:

A. In case any user forgets his/her password in the time of sign in, after the user request for change his/her password. System will send a OTP on his/her registered e-mail address, by providing the particular OTP he/she can set new password for sign in.

B. The system will backup users order details in the cloud database at the time of booking with the help of users registered email. So that in case the customer lost his/her order details the system can recover the important data from database.

**2.2 Product Functions**

❖ **Login**

❖ **Registration**

❖ **Update Profile**

❖ **View services**

❖ **Search services**

❖**Filter**

❖ **Book a service**

❖ **Call for a tender**

❖**Cancel order**

❖ **Payment**

❖**Update service details**

❖**Bid for Tender**

❖**Get payment**

❖**Refund**

❖**Provide cost and work location**

❖**User Authentication**

❖**Update service list**

❖**Produce report**

❖**Manage user**

❖**Manage customer & service provider**

❖**Manage System**

❖ **Log out**

❖ **Rating**

**2.3 User Characteristics**

Customer need to have a minimum computer knowledge to operate system. do payments online and knowledge of insurance domain.

The support team members also need to know about the company policies in details, and they must be computer literate to access the system otherwise they will not be able to help the customers to solve their problems.

The administrator/s have to be very efficient of using computer and internet to control whole system, the administrator should have a very clear understanding of the database because he has to manage every customer’s order and take care of the system. The administrator/s also have to manage the support team and observe their activity strictly so the support team members do their work systematically. The administrator/s will be efficient enough to recover the system in case any emergency situation like “system collapse”. It is the duty of the administrators to gather many service providers to the system. The administrators would know everything about all the details of policies and the design of the entire system.

**2.4 Constraints**

A. As the system is a web-based system. The users need a high speed or Moderate Internet speed-up is needed to access the system.

B. As the system is dependent on the banking system to purchase service. When the banking system fails then users cannot purchase any policy.

F. For security purpose the users have to login using their specific email address and password. After 5 wrong try a user will be blocked for 30 minutes.

G. For safety purpose at the time of user’s new registration OTP will be sent on the registered mobile number and registered email address of the user for proper identification.

H. As the website is HTTPS certified so there is no question of non-reliability appears.

I. The database at the backend of the system is totally reliable.

There is no data redundancy and data inconsistency.

**2.5 Assumptions and Dependencies**

1. This is a modern design to provide services at customer’s doorstep, the system itself working as an agent, system itself providing different service choices to the customer, and system will let the customer to compare between several services of several service providers, then only book a service.
2. Customer can generate password for himself/herself which must contain alphanumeric value of at least eight symbols. There must be one capital case letter, one small case letter, one number and one special symbol. There should not be any space.
3. Every scanned copy uploaded by the service provider must be in pdf format and the size is less than 512kb. If there is any image, then the image must be in jpg format and the size should be less than 512kb.
4. If a customer wants the support of the supporting team he/she must generate a request. After few minutes a chat box will be appeared and the customer can interact with the help desk team through chatting.
5. If the customer wants to make payment through credit card/debit card, then the customer will be redirected to the corresponding bank portal. After making the payment through the banking portal the customer will be redirected to the system portal. If the payment is correctly made the portal will generate a digital receipt which will be sent to the customer or else the payment will be cancelled.
6. Every service provider must provide the Diploma Certificate, Adhaar card number, Pan number, Bank details etc. It is the responsibility of the service provider to provide valid documents else he/she may not be allowed to join the company as a service provider. Now the data provided by the service provider is checked by the company and the company decides whether he/she will be granted or not. The system is not responsible for granting him/her. The company directly interacts with the service provider in this case.
7. The administrator manages which service provider will be assigned for a service requested by the customer and the admin always tries to assign the best service provider available at that time with respect to the rating of service providers.
8. There will be no cash on hand payment between customer and service provider every transaction must be done using the system.
9. The customer must have valid Bank Account and he/she must have Debit card/credit card/UPI/Phone Payee for book a service.
10. Other than browsing and new registration, the user needs to be logged in into the system for Book an order, add/update order, profile information, ask for support or for claim purpose.
11. The major actors (except customer) will have specific and mutually exclusive functions.
12. Only the admin can have access to the accounts report.
13. The customer care executive will, at a regular basis, address the suggestions/complaints from customer’s end and contact them only if requests are authentic.
14. Feedback form details will be handled by the customer care executive and referred to service providers, if required.
15. Care is taken to retrieve entered data of the user in case timer runs out before payment is successful.
16. To discourage malpractices by service providers, registration is to be authorised before providing Login ID.
17. 2 No user, service provider, manager or customer care executive can have duplicate User IDs. This is because the software has a common login window which validates all the 4 major actors. However, they can have the same name, address and contact details while signing up for the first time, to facilitate the manager or customer care executive (or their family members) to be customers as well.
18. A manager/customer care executive should have different User ID and password while acting as a customer.

**2.6 Apportioning of requirements**

In the case that the project is delayed, there are some requirements that could be transferred to the next version of the application.