

Project Report
On
Construction -Service



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-: Construction Services: -

1. Introduction: -

1. In this fast-growing technology, we still have to take the appointment of person who solve the problems related to construction services like plumbing, Electrical, Interior Design, Construction labour and paint
2. To take the appointment of service provider we have to call him or with the personal meeting we can meet him, and it is not sure that we get the appointment of the service provider at a time because there are many problems occur, like the service provider is busy at somewhere else or he is not present at his office when we go there or he wants heavy cost for fix the problem etc.
3. We are not getting any service on time and also not proper charges of services. It is also not secure in terms of safety concern.
4. Its problematic for customer to find any service in emergency at any time and place in big city.
5. To overcome this type of problem we are going to develop Website where the people get appropriate result.
6. This website is very dynamic and very easy to understand. The interface of the website is very easy and anybody can easily work on it. This website can provide all the description and important information about the problem.
7. The construction service website is also very useful because the customer doesn't have to visit to every service provider's office (like builder, Electric contractor, interior designer, painter) he/she can easily book his/her appointment via this website and he/she can also communicate with the help of website. and also, we provided the billing system (invoices) so misunderstanding or miscommunication between service provider and customer for payment.
8. To make this application work successfully we have used some latest technology such as html, CSS, JavaScript, spring boot and MySQL as the database management environment.
9. The UML diagram has been drawn which is useful to display the flow of the process throughout the system so even an inexperienced people can easily get the idea of the proposed system.

1.1 Purpose: -

The Construction Services it's a Web Application which is main focus on the Service Provider and Consumer which Who construct their new house and renew their house. It's provided the proper communication between consumer and service provider. Our website its help to service provider to connecting to grass level consumer so its business is keep growing and also help to consumer give proper system to build their house.

1.2 Intended Audience and Reading Suggestions: -

Only Certified services provider can register their services so consumer get proper and best level of services and any consumer can see different services and also services provider details like Name, certificate, rating etc so customer can choose their service provider.

1.3 Scope: -

1. The scope of our project is to designing a complete environment to provide a safe and user-friendly environment to for New House Construction and also to help to who want renew their house. The main aim of the project is to provider an easy-to-use web application for services provided for customer.
2. We often get frustrated while taking the appointment of service provider because there the many problems are occur, like the service provider is busy at somewhere else or his not receiving our call or his cost is very high according to problem.

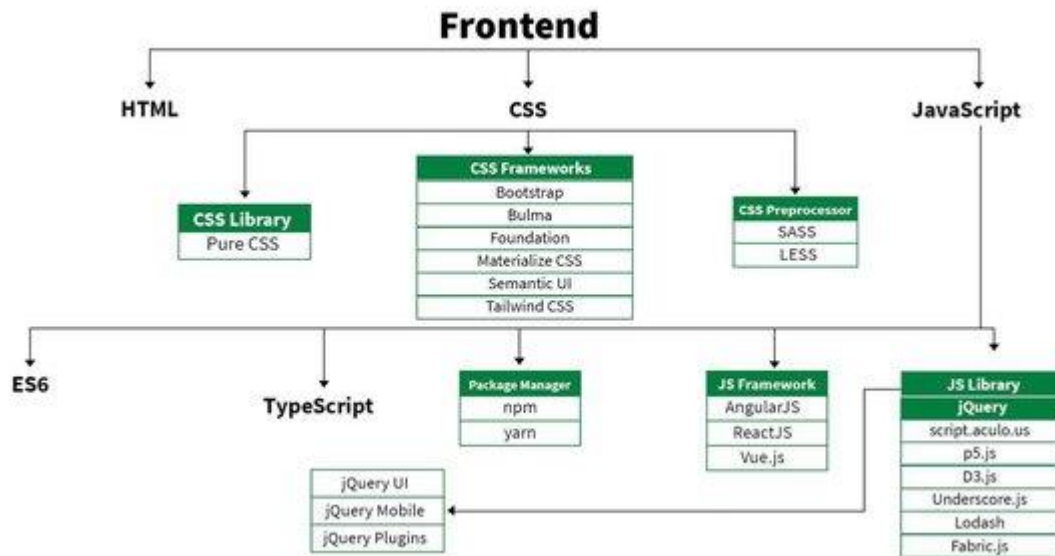
➤ Modules: -

1. Customer details
2. Service provider details (as per the service)
3. Availability of SP
4. Payment (Invoices) Details
5. Agreement details
6. Feedback (Dispute)

1.4 Technologies Used: -

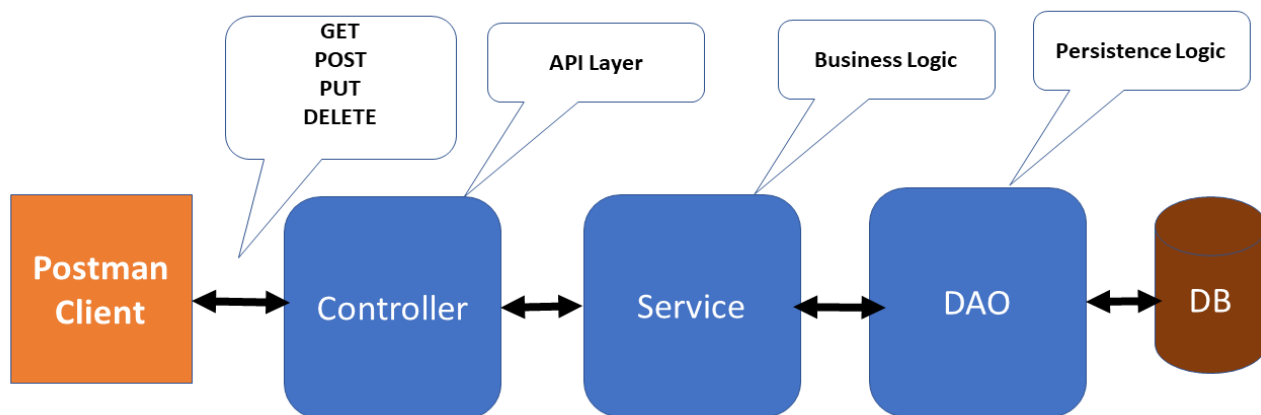
1. Frontend Technologies: -

- HTML
- CSS
- JavaScript
- React



2. Backend Technologies

- Spring Boot
- MySQL
- Core Java



2. Overall Description: -

There are many online Construction Services provider like Shapoor Pallonji & Co Ltd, Mumbai, GMR Group, Mumbai, Hindustan Construction Company (HCC), Mumbai, Afcons Infrastructure Limited, which were designed using Html and CSS for frontend. I want to develop a similar website using Java Spring boot, Hibernate and SQL Server for backend and fronted by using react, HTML and CSS. We Provided these services for small services to keep growing their business with the help of our website and also provided services to related of construction. We provided solution for who want build their new house and also who she/he want to change their interior of home.

Our website customer can find the best solution and trustable service. We find the problem after some work and payment the service provider and coatomers find to difficulties about the services so we can keep agreement between them and we provided their communication.

2.1This project has the following functionalities:

1. A Home page With Services Catalog: -
2. Search Services
3. Check Services Provider Profile
4. Meeting
5. Agreement
6. Billing
7. Admin

2.2Product Features

- User –Friendly

Our website is user friendly we provided simple Interface to user The objective is to help get to what they want faster and without running into unnecessary complexity that can clog up the path to purchase.

- Mobile-Friendly Website

Our website is also Mobile friendly so the consumer and services provider can easily handle their track of services like meeting info, customer info etc. the no of user is more than who visit throw personal computer. and we provide a responsive website content intuitively adapts to whatever device is accessing it to provide the more friendly experience.

2.3 User Classes and Characteristics

- The user should be familiar with the E-commerce web terminology like searching cart/ Checking billing/Transaction, etc.
- The user should be familiar with the Internet

2.4 Operating Environment

The following software are going to work in the following atmosphere:

- -Microsoft stack consisting of, OS – Windows 8.1, XP
- Spring Tool Suite
- Java, Spring Boot, Spring Security, Hibernate

2.5 Design and Implementation Constraints

An Online construction Services is a virtual website on the Internet where customers can browse the services and select services as per requirement. The selected services will be collected in a services cart. At checkout time, the items in the services cart will be presented as a service. At that time more information will be needed to complete the Agreement. Usually, the customer will be asked to fill out or select a billing address, services address and billing information such as credit card number. An Email notification is sent out to the customer as soon as the Agreement is Fixed

2.6 Customers/Service provider Documentation

When customers can register then we check their documentation to clearly verify the wrong information can not fill by customers and we will also check documentation of the service provider who will register on our website. For the customers and builder security we will also provide agreement. And total information is stored in MySQL databases

2.7 Assumption and Dependencies

There are no assumptions consumed

3.System Features: -

This project is aimed at developing online Construction Services that is of significant to those people who use internet. It is an application that can be accessed by all the people and can save their time instead of doing traditional way. Online Construction Services is the process consumers go through web application and select the Services like builder, electrician, plumber, interior designer services over the Internet. Consumers find a Services of interest by visiting the website or do a search across many different vendors using a Services search engine.

There are many features like:

1. Add Service to cart
2. Delete Service from cart
3. Total amount display
4. Bill (invoices) printing
5. payment through credit card or cash payment on delivery options.
6. Meeting arrange by using online meet services (Zoom, Meet etc)

Admin: -

1. Admin will be able to check All services provider are authorised are not He will also check is certified and also document of services provide.
2. Admin can also check anonymous Service provider who will give wrong information and register on website as service provider.
3. Admin can disqualify service provider who will not give proper services to consumer.
4. Admin can check Agreement between Service provider and customers and also possible to check billing
5. Admin can to arranged the meet for communication Between service provider and Customers
6. Admin can set rule or instruction for service provider and customer to maintain relation of them.
7. Admin can Check review and Feedback of Services Provider and also website

Service Provider: -

1. Service provider can check the customers details who will use their services
2. The Services Provider Can Arrangement the meeting for details of work and which type of material he used.
3. The Services Provider can Verify/ Visit the customer address after the fix the services
4. The services provider can Add and Delete Services
5. The Service Provider give the information (track) about his work on the time to time and also his give messages after work Completion
6. Service Provider can also give feedback about customer to admin so admin can easily use for Growing the website.

Customers: -

1. Un register Customers can Visit the Website and also registration on our website to uses to our Services.
2. The Register customers can check the profile of services provider to choose the services.
- 3.
4. The Customers can rise query about getting problem related to services.
5. The Customers can give positive feedback and negative feedback as per services.

4.External Interface Requirements:

4.1 User Interface: -

The Implementation of Online web Application of Construction Services must provide a Eco-friendly and simple user interface that will be accessible through any internet browser, the major ones being Google Chrome and Internet Explorer 12 .

4.2 Hardware Interfaces

The Server can be accessed by the client system. The client system has access to the database in the server

4.3 Software Interfaces: -

- **Back End: -**

Core Java: It is Programming language, use for coding.

Spring Boot: It is a Framework supports in task such as data binding validation, exception handling.

MYSQL: MySQL is a database, widely used for accessing querying, updating, and managing data in Databases.

- **Front End: -**

Html& CS: - It is a Programming language, commonly use in Web browsers.

JavaScript& React: - It is a Programming language, commonly use in Web browsers.

4.4 Communication Interfaces: -

- Should have a proper Internet Connection.
- The Response time for occurs a change will be more than 4 seconds.
- The Response time for access the database will be no more 5 seconds

5. Non-functional Requirement: -

5.1-Security: -

- I. Registered Customer will allow to place a to services as regarding there requirement and also fix appointment on date
- II. System will be accessible using different roles assigned to users and Service Provider (Authorization)
- III. All transaction performed by user will be handled using SSL (Secure Socket Layer).
- IV. System will automatically log of all User after some time due to inactiveness.
- V. Software will internally maintain secure communication channel between Servers (Web Servers, App Servers, database Server)
- VI. Sensitive data will be always encrypted across communication. And User proper firewall to protect servers from outside fishing, virus attacks.

5.2-Reliability: -

- I. The system will backup business data on regular basis and recover in short time duration to keep system operational Continuous updates are maturated, continuous Administration is done to keep system operational.
- II. During peak hours system will maintain same user experience by managing load balancing.

5.3-Availability: -

uptime: 24* 7 available
(99.999%)

5.4-Maintainability: -

- I. A Commercial database software will be used to maintain System data Persistence.
- II. A readymade Web Server will be installed to host online shopping portal (Web Site) to management server

5.5-Capabilities: -

- I. IT operations team will easily monitor and configure System using administrative tools provided by Servers.
- II. Separate environment will be maintained for software for isolation in production, testing, and development.

5.6-Portability: -

- I. OSS will provide portable User Interface using (HTML, CSS, JS). users will be able to access website.
- II. portal using any browser, from any device, using any Operating System.
- III. OSS can be deployed to single server, multi-server, to any OS, Cloud (Azure or AWS or GCP)

5.7-Accessibility: -

- I. Only registered customer will be able to get services and fix appointment after authentication. (Authenticated user)
- II. Management team (Admin) can have rights to reject or approve Any Services of Services provider and also appointment between Customer and Service Provider.
- III. Admin team will be able to view daily, weekly, monthly, annual business data
- IV. Admin team keep track of Agreement of services and track of billing system

5.7-Durability: -

- I. System will retain customer appointment details and Services Cart as early as possible even though customer loose internet connection and join again.
- II. System will maintain Wishlist for customer. customer will be able to add services and add appointment from Wishlist and add to cart whenever needed.
- III. System will implement backup and recovery for retaining stake holders' data, business operation data and business data over time.

5.8-Efficiency: -

- I. System will be able to manage all transactions with isolation when traffic and no of customers is increases.
- II. System will able to regain server as early as possible, any failure occurs at the sever side.

5.9-Modularity: -

- I. System Software will be designed and developed using reusable, independent or dependent business scenarios in the form of modules.
- II. These modules will be loosely coupled and highly cohesive. (Divide and Rule)
- III. System will contain Product CatLog, CRM, Inventory, Service Cart, appointment list, Processing, Payment Processing, Billing, membership and Roles management modules.

5.10-Scalability: -

- I. System will be able to provide consistent user experience to Services provider and admin team as well as Customer visitors irrespective of load.
- II. Visitor Can able to see features of services so more customer can register the website and get proper services

5.11-Safety: -

- I. -System will be secure from malicious attack, fishing. and System functionalities are protected from outside with proper firewall configuration.
- II. Online portal will be always kept updated with latest anti-virus software. Business data will be backed up periodically to ensure safety of data using incremental back up strategy.
- III. Role based security will be applied for Application data and operations accessibility.
- IV. The Agreement and payment related data will also keep Secure

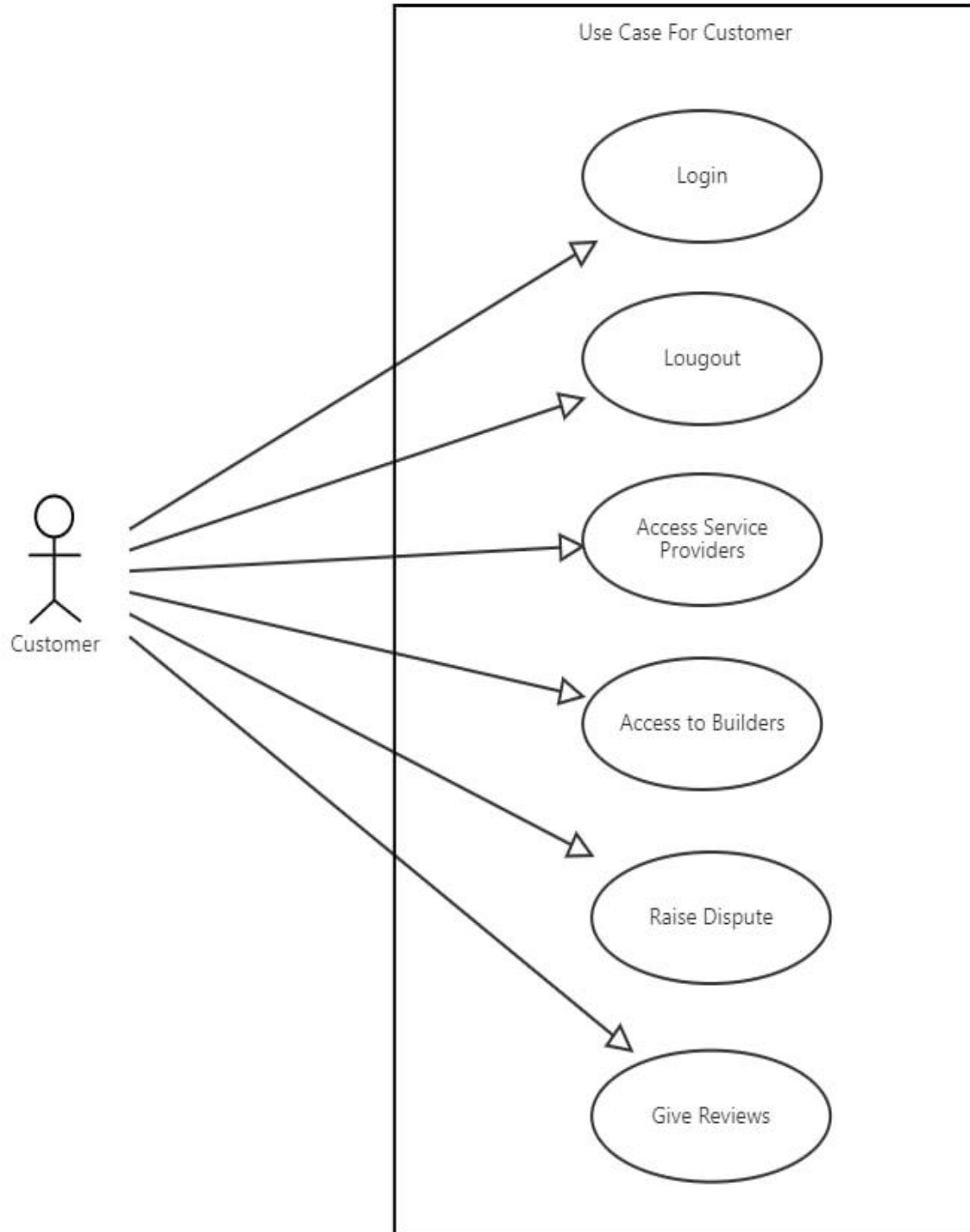
6.Other Requirements: -

A degraded mode of operation should be possible in which each system can operate independently of central scheduling. The software shall have failure and error recognition codesacting as a safety net, thus keeping the software from performing any major catastrophic functions.

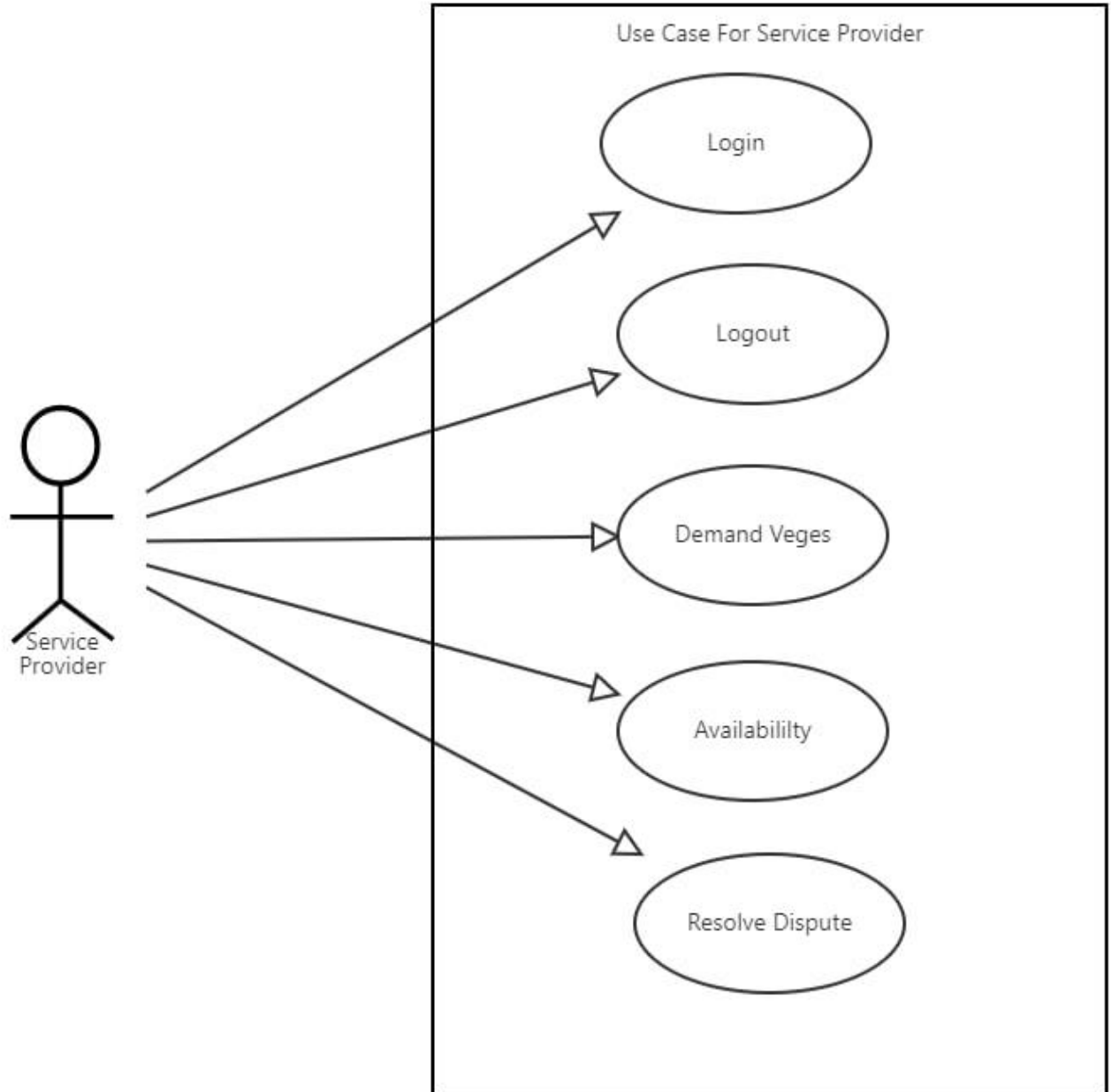
7. Analysis Modelling

7.1 Use Case Diagram

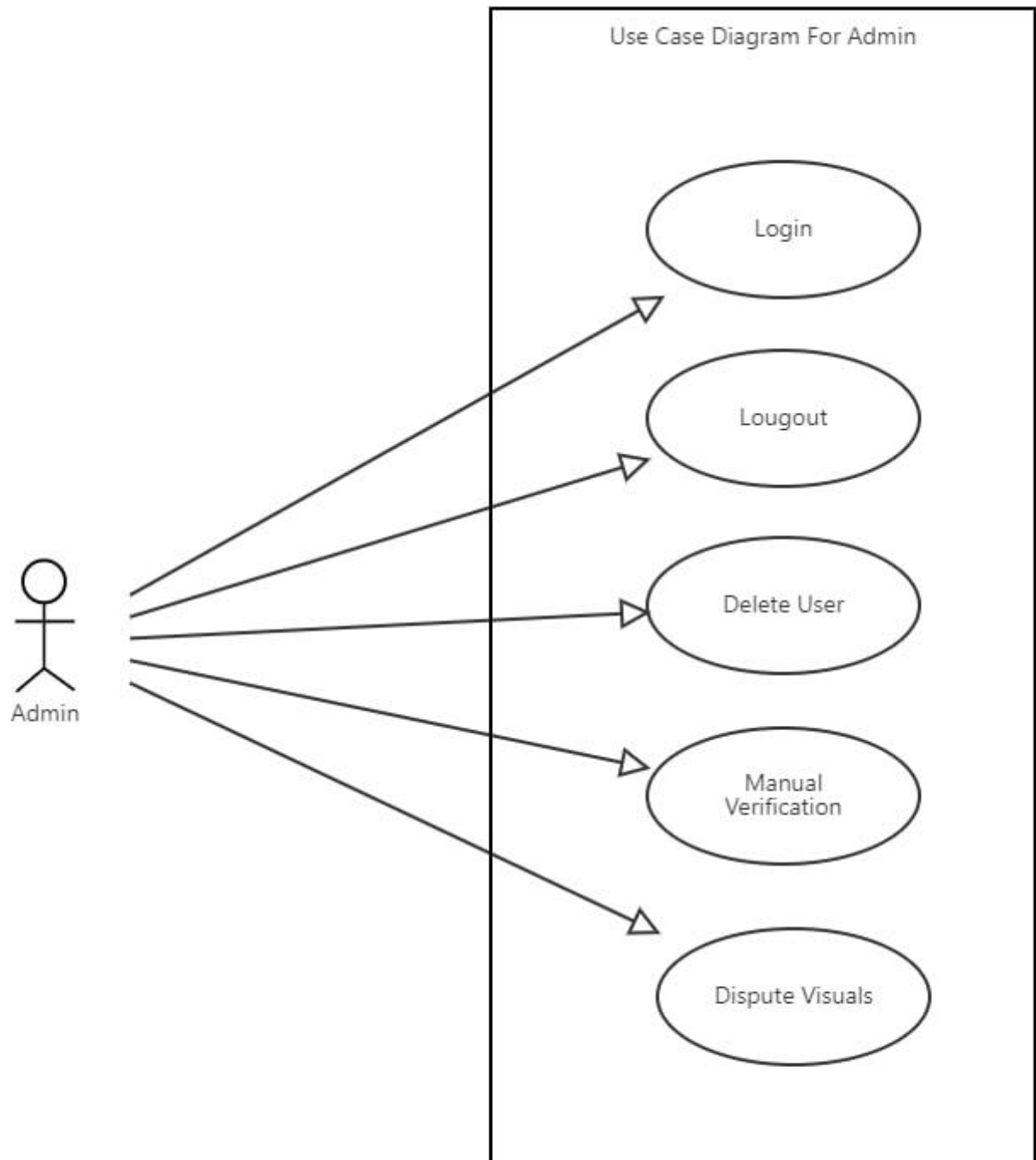
Customer



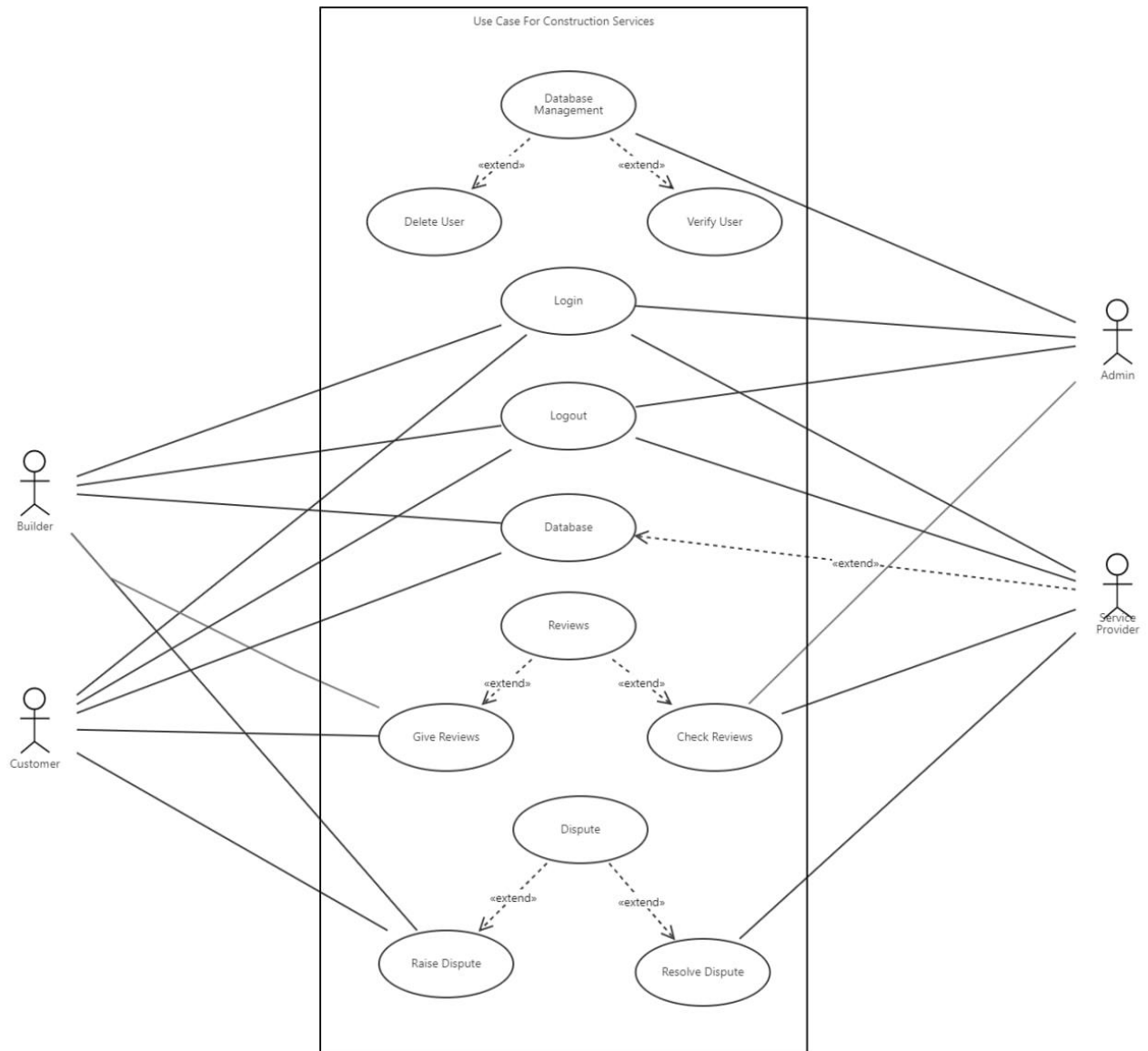
Services Provider



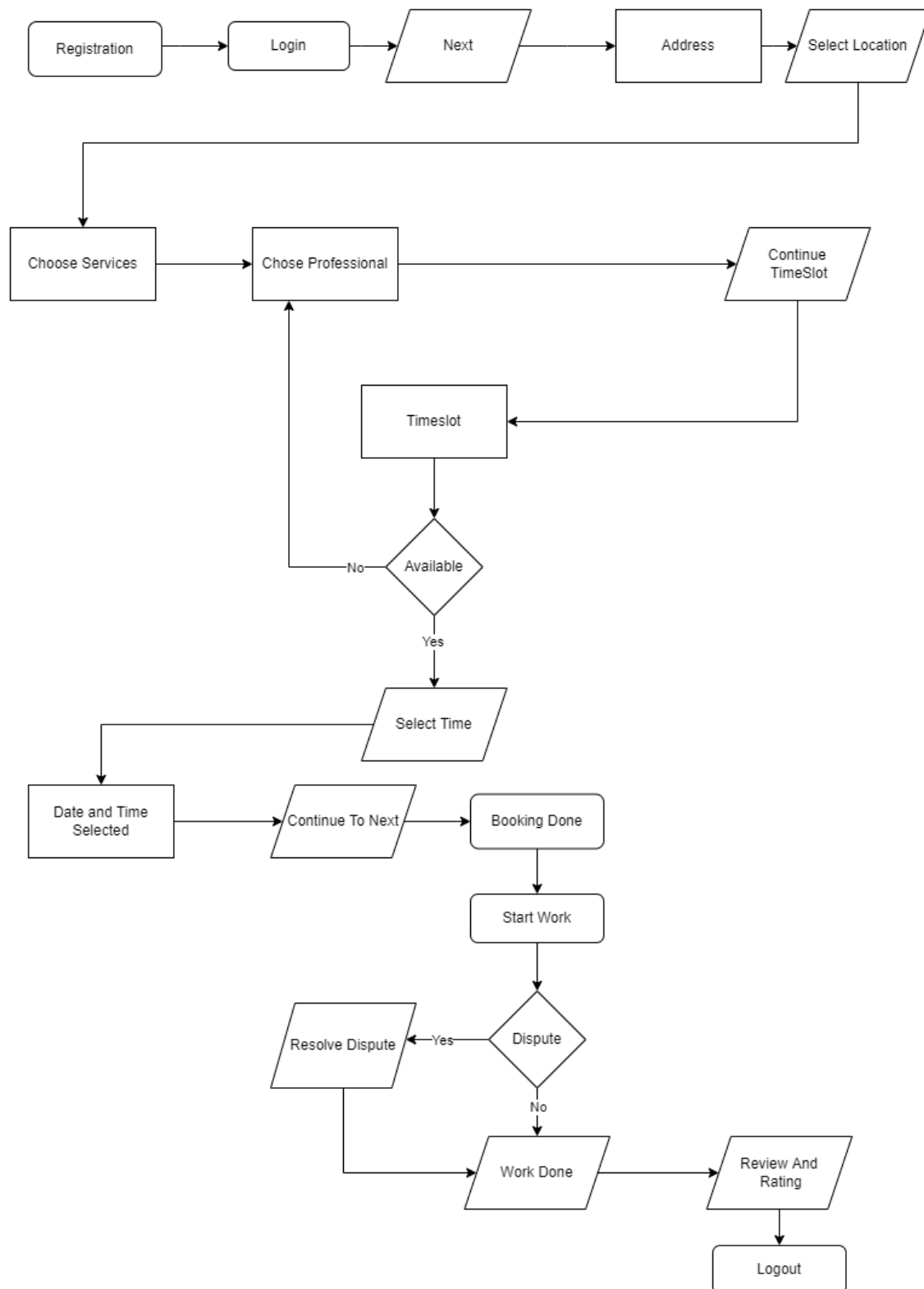
Admin



Construction Services Use Case



7.2 Flow Diagram



ER- Diagram

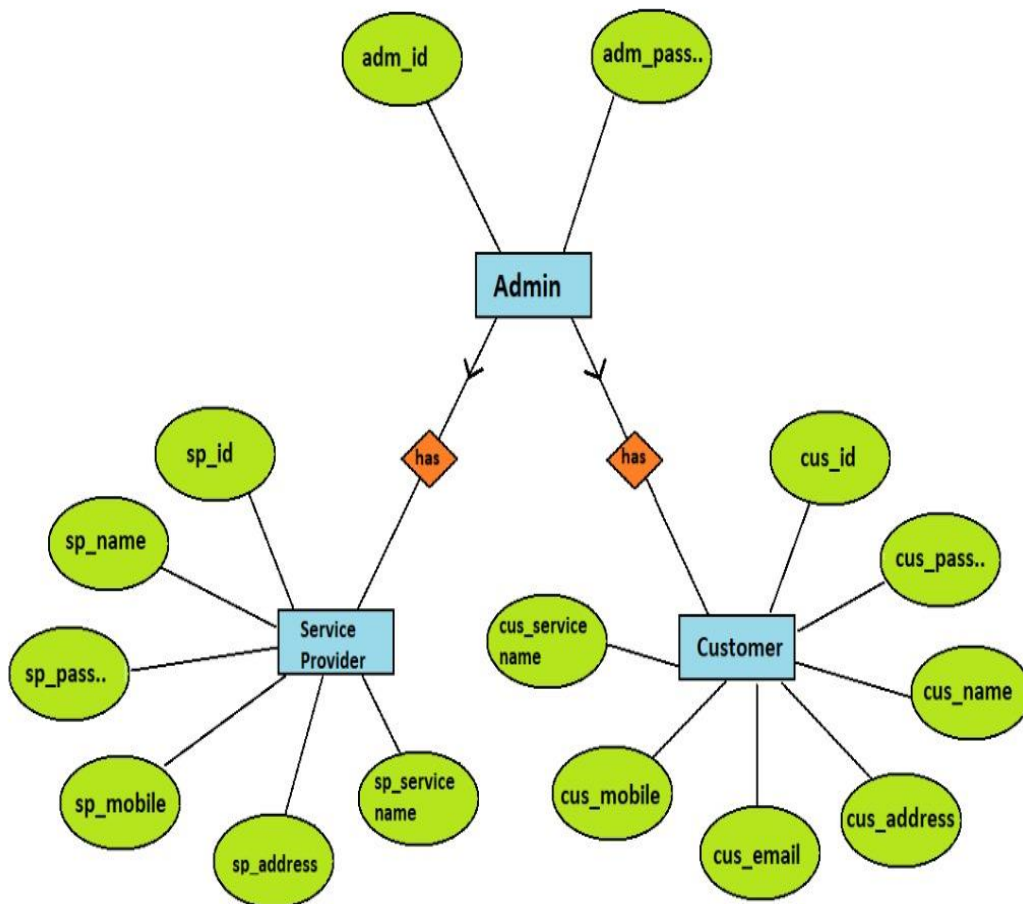
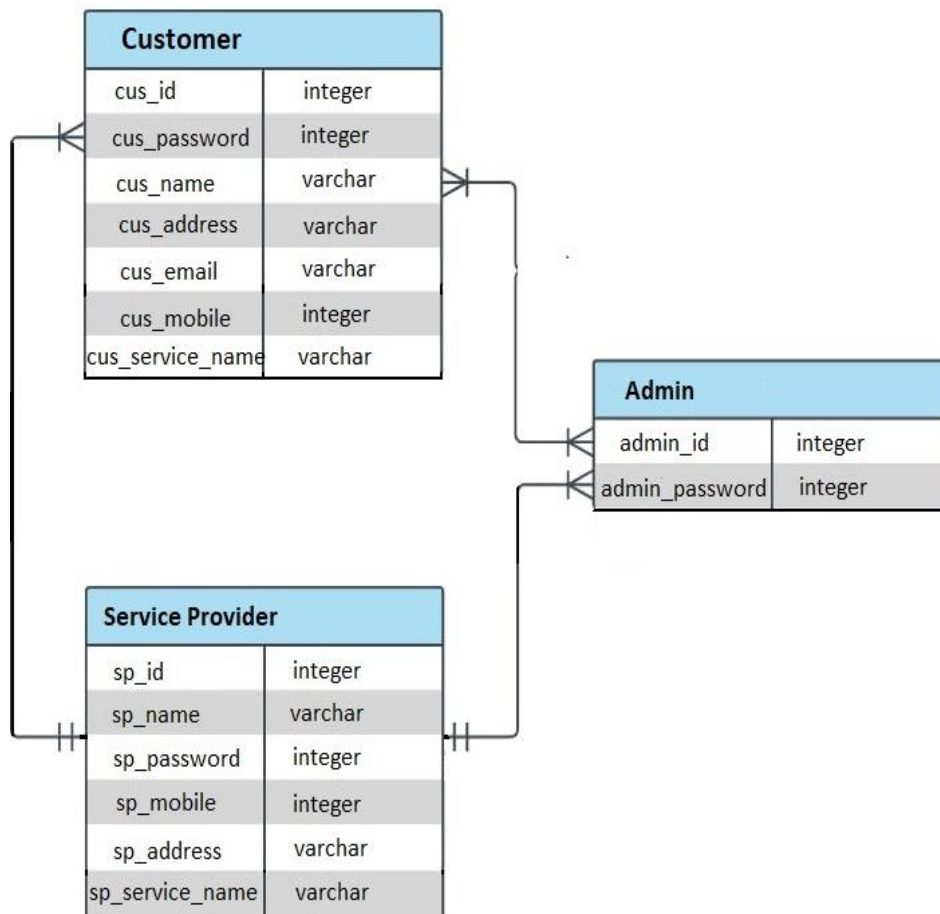


Table Diagram



Main page

[LOGO](#) [Home](#) [About](#) [Registered as Service Provider](#) [Login/Sign Up](#)

<

First slide

>

Welcome To Services

Email address

email@example.com

Password

Password

☐ Remember me

Sign in

New around here? Sign up

Forgot password?

About

Privacy Policy

Terms and Contions

Contact Us

Registration page

Name:	Email address
<input type="text" value="Name"/>	<input type="text" value="email@gmail.com"/>
Address	Pin Code:
<input type="text" value="Address"/>	<input type="text" value="Pin Code"/>
Password	Mobile No:
<input type="text" value="Password"/>	<input type="text" value="Mobile No"/>
Confirm Password	
<input type="text" value="Confirm"/>	
<input type="checkbox"/> Remember me	<input type="button" value="Sign Up"/> <input type="button" value="Cancel"/>

[New around here? Sign up](#)

[Forgot password?](#)