Software Requirement and Design Specifications

Matlabe

Matlabe is an online platform that helps you find local service providers. The platform helps you find service providers based on your location thus more effective. Services can be of any type, we haven’t bounded them to category. Service Provider have the ease to sell anything as long as it pays and its legal. And they have the advantage to easily connect to them as local clients attract to them.

Table of Contents

1. Introduction

1.1. Purpose of Document

The purpose of this document is to completely design the software and define its each and every component so a better understanding of the system can be created

1.2. Intended Audience

Clients – people who are seeking different kind of services

Service Providers – those people that are selling their services in return for payment e.g. tutor, electrician, artists

1.3 Definition of Terms, Acronyms and Abbreviations

None

1.4 Document Convention

Font - Gill Sans MT

2. Overall System Description

2.1. Project Background

Much like many freelancing websites out there that focus on digital services, our approach was to focus on services based on their locality

2.2. Project Scope

There are a ton of things that can be implemented on this project once implemented in practical life but for a project scope we kept things simple. All the main functionalities of our idea is covered in this project

2.3. Not in This Scope

Several factors such as location precision, elaborated service information’s and a modern search engine etc. are out of scope

2.4. Project Objectives

- Help people to quickly find the services they are looking for and vice versa to get clients
- Gaining maximum efficiency using technology to connect to the sellers and buyers
- Making sure the buyer connects to the just right person for him
- People should be able to buy and sell local services in the same fashion as physical goods on an e-commerce platform
- For clients to connect to seller on basis of their location for local service

2.5. Stakeholders

- Client
- Service providers
- Any future employee
- Possible investors
- Owners

2.6. Operating Environment

Web browsers

2.7. System Constraints

- A standard level of literacy rate is required to be able to sell services
- The services would be location-bounded

2.8. Assumptions & Dependencies

- None

3. External Interface Requirements

[This section is intended to specify any requirements that ensure that the new system will connect properly to external components. Place a context diagram showing the external interfaces at a high level of abstraction.]

3.1. Hardware Interfaces

Inconsiderable

3.2. Software Interfaces

OS – windows 10,mac OS, Linux

Back-end Technologies – Django Frame work on Python + SQLite
Front-end technologies – React - Js

3.3. Communications Interfaces

Web browser

4. Functional Requirements

4.1. Functional Hierarchy

USE CASE - login
ACTORS – client, service providers

USE CASE - sing up
ACTORS - client, service providers

USE CASE - search services
ACTORS - client

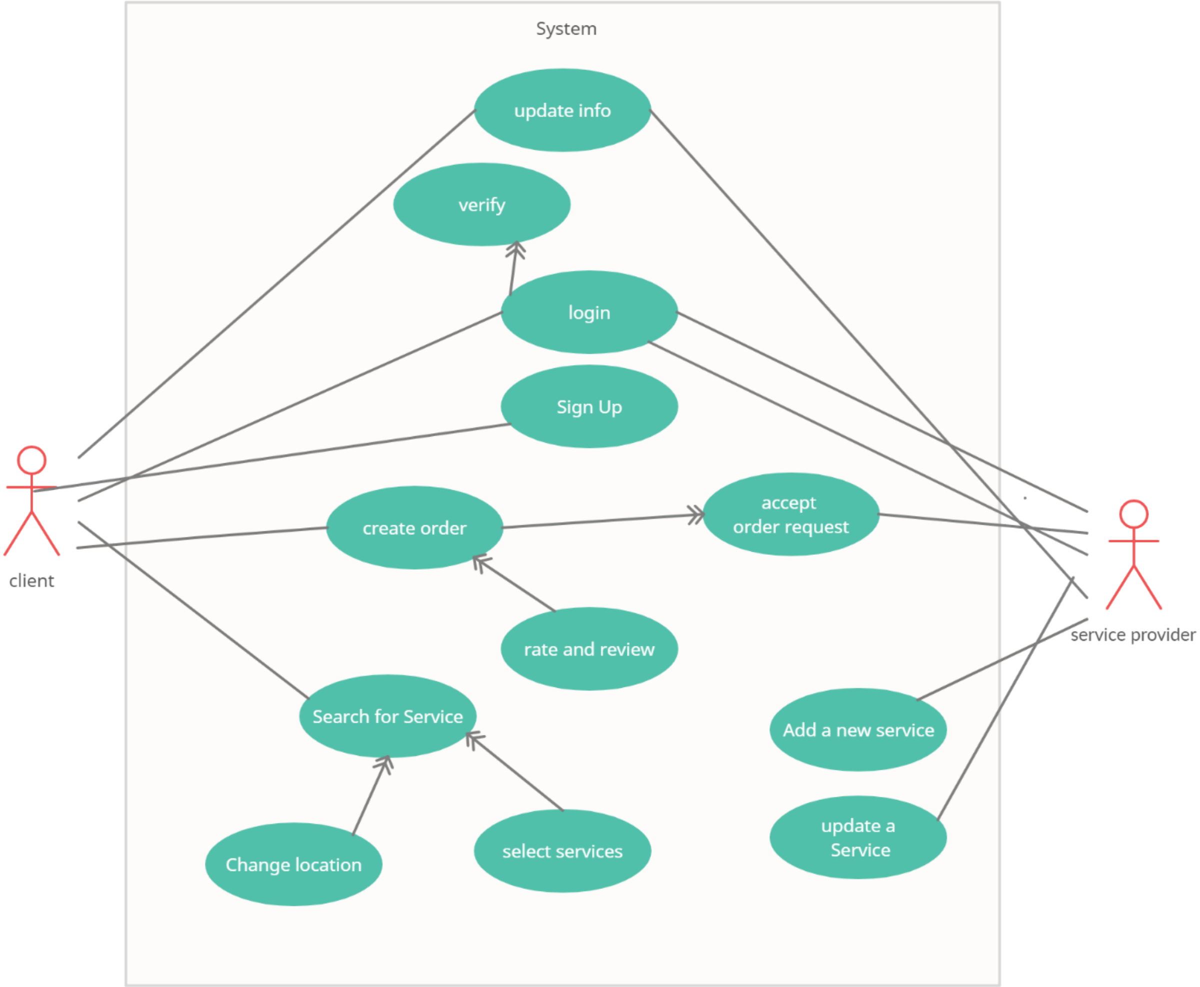
USE CASE - view/select services
ACTORS – client

USE CASE - update info
ACTORS – client, service providers

USE CASE - create order
ACTORS – client

USE CASE - accept order
ACTORS - service providers

4.2. Use Cases


System
update info
verify
login
Sign Up
create order
accept
order request
rate and review
Search for Service
Add a new service
update a
Service
Change location
select services
client
service provider

5. Non-functional Requirements

5.1. Performance Requirements

A medium spec-ed hardware is supporting a web browser is sufficient to run the program

5.2. Safety Requirements

Our platform provides an option if he client wishes to procced to the service by the service providers through our platform via order or independently. If incase a client proceeds independently, we shall not be liable of any act of fraud committed by the service provider

5.3. Security Requirements

To consciously provide your personal information such as phone no and address

5.4. User Documentation

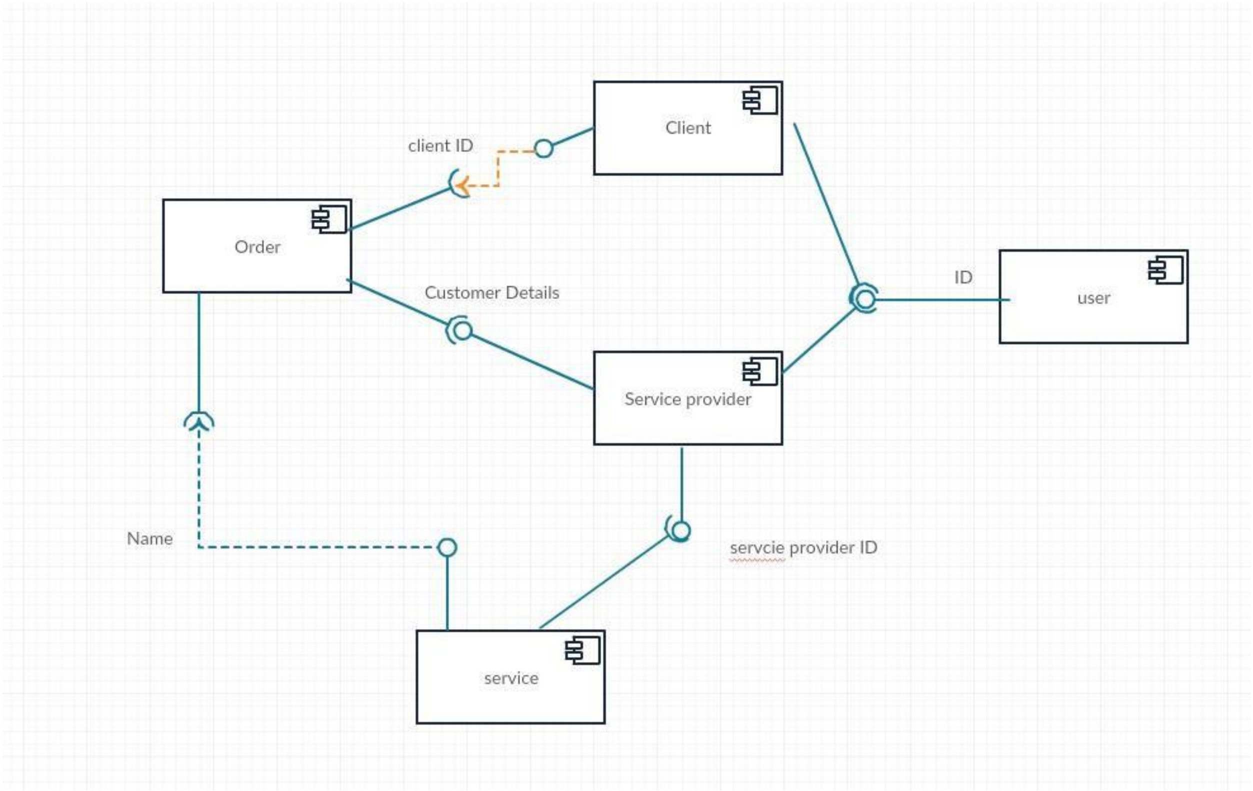
None, the program would be easy to use and user friendly

SDS

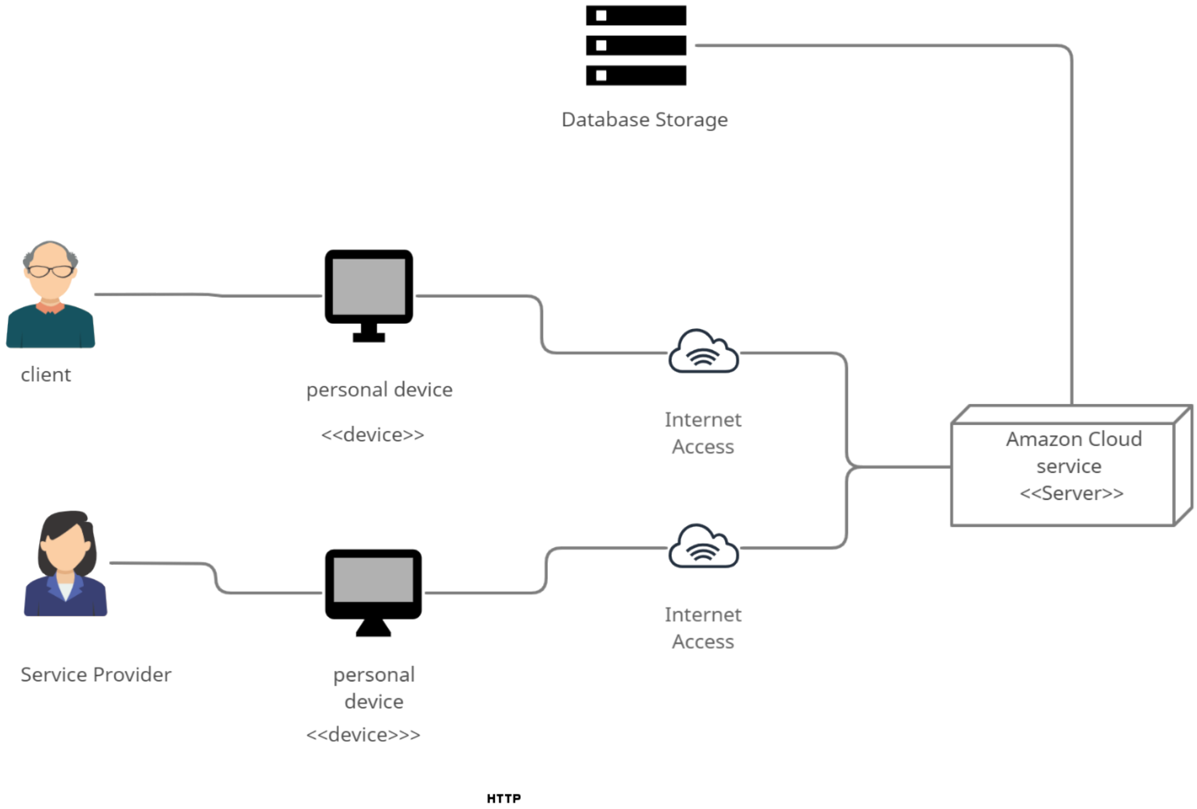
6. System Architecture

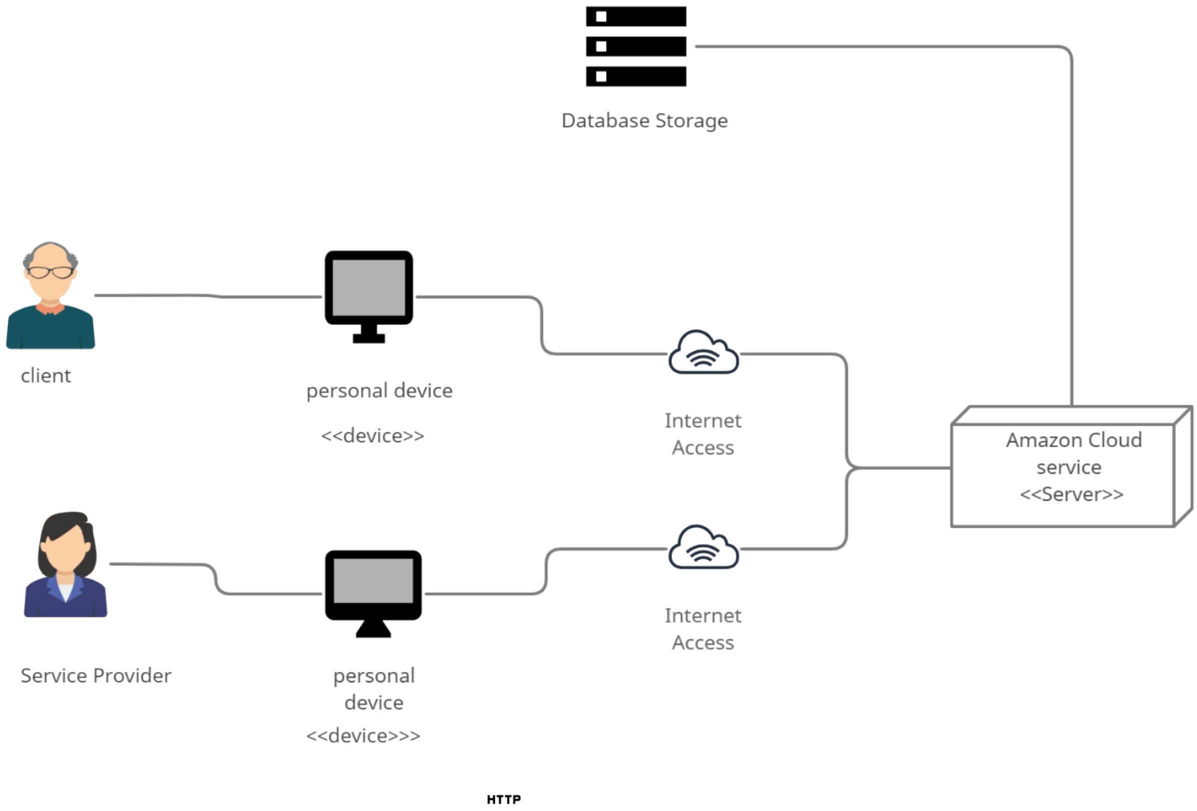
6.1. System Level Architecture

Component diagram



Deployment Diagram:





7. Design Strategy

- This project could be extended to a global scale much like Uber
- This system has infinite reusability
- Generic Interface Paradigms
- Applying Data science on user Data to re-design the business strategy for the porduct

Detailed System Design

8.1. Database Design

User

User will be any person that has signed up on our site and will be using our online platform for their benefits. A user can join in as client, as a service provider or both. The user would be required to input his name and will be uniquely identified by his email

Service Provider Portal

User as a service provider is given a unique id. A service provider would would be required to enter his location from where he is selling his services so local clients will be attracted to him, he would need to input his phone number so clients can contact him and lastly he would be needing to enter his information in about section so clients can get to know about him and his work. He also has the option to select out of office mode through which clients won't be able to find his services

- Service provider can create and sell services

Client Portal

Matlabe user as a client is also given a unique id which uniquely distinguishes him. He would be required to enter his home address or to the place from where he frequently orders those services.

- A client can order services

Services

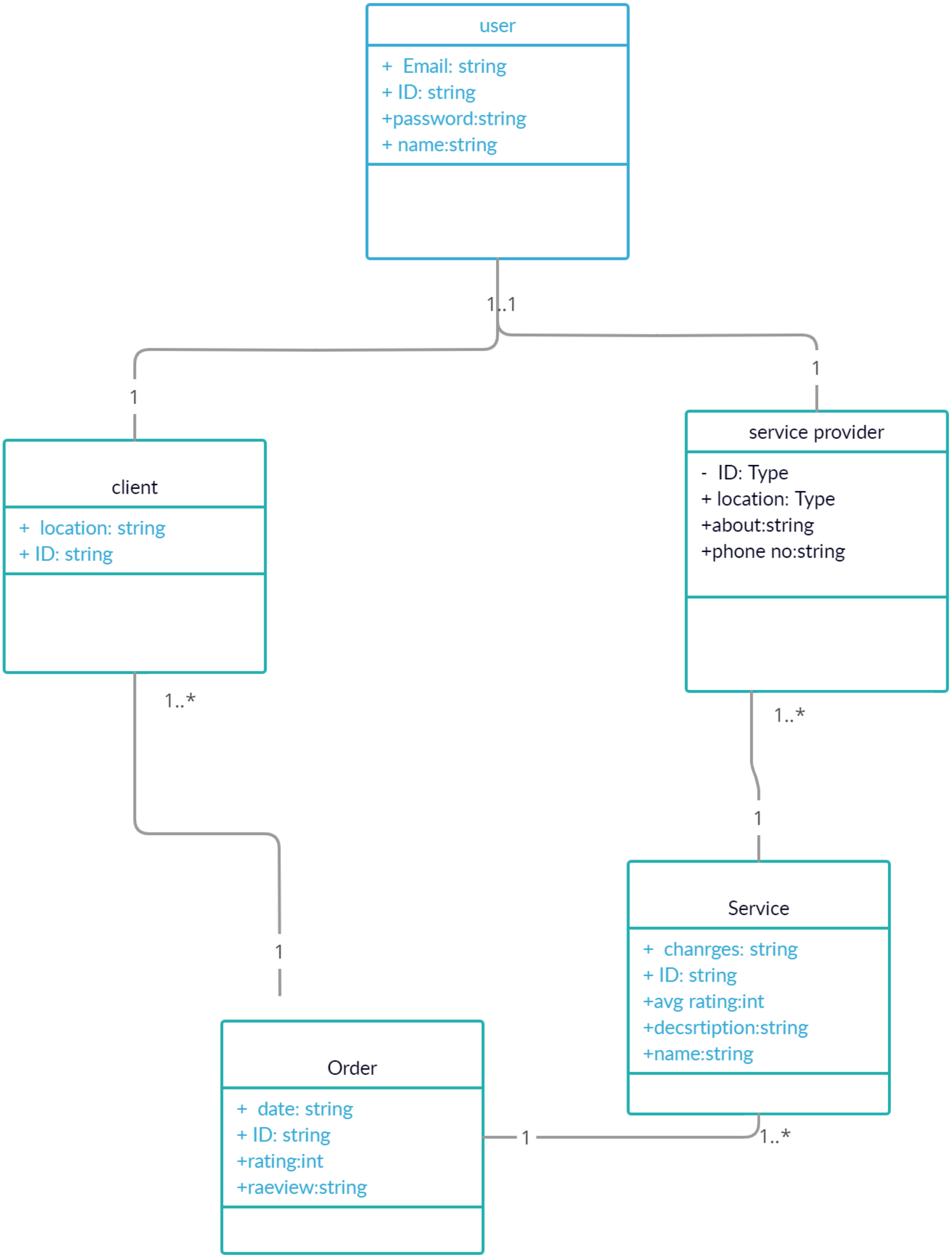
Service can be described as any sort of work or suppliance which in return can pay. Service can be of any sort from plumbing, tutoring, catering or even painting for someone. A service is uniquely identified by the service name+ the person that is providing the service. The client is required to provide the info about the service such as the basic description his charges information for the services. A count of number of people that have viewed the service and amount of time the service has appeared on the search result is kept

- A client can order the service if he wishes to and in return, he should give the rating + review for the service. Average rating is also recorded

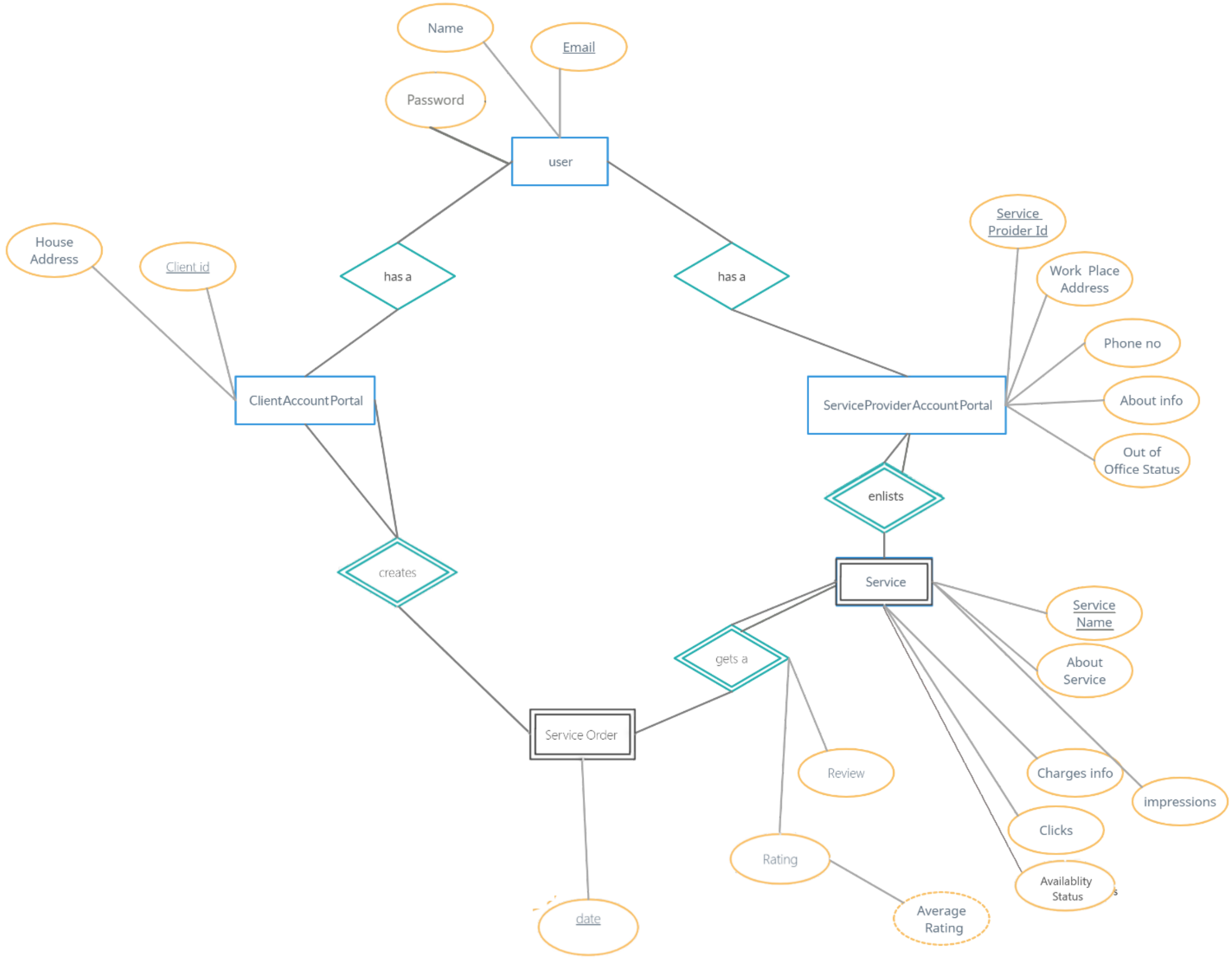
Order

We have provided the option for a client to order the service via our platform. If he wishes to choose that we will take the assurance of the work and he will be able to rate and review. For this case we keep track of the records which are distinguished by the date of the order, the service id and the id of the client that orders the service

Class diagram

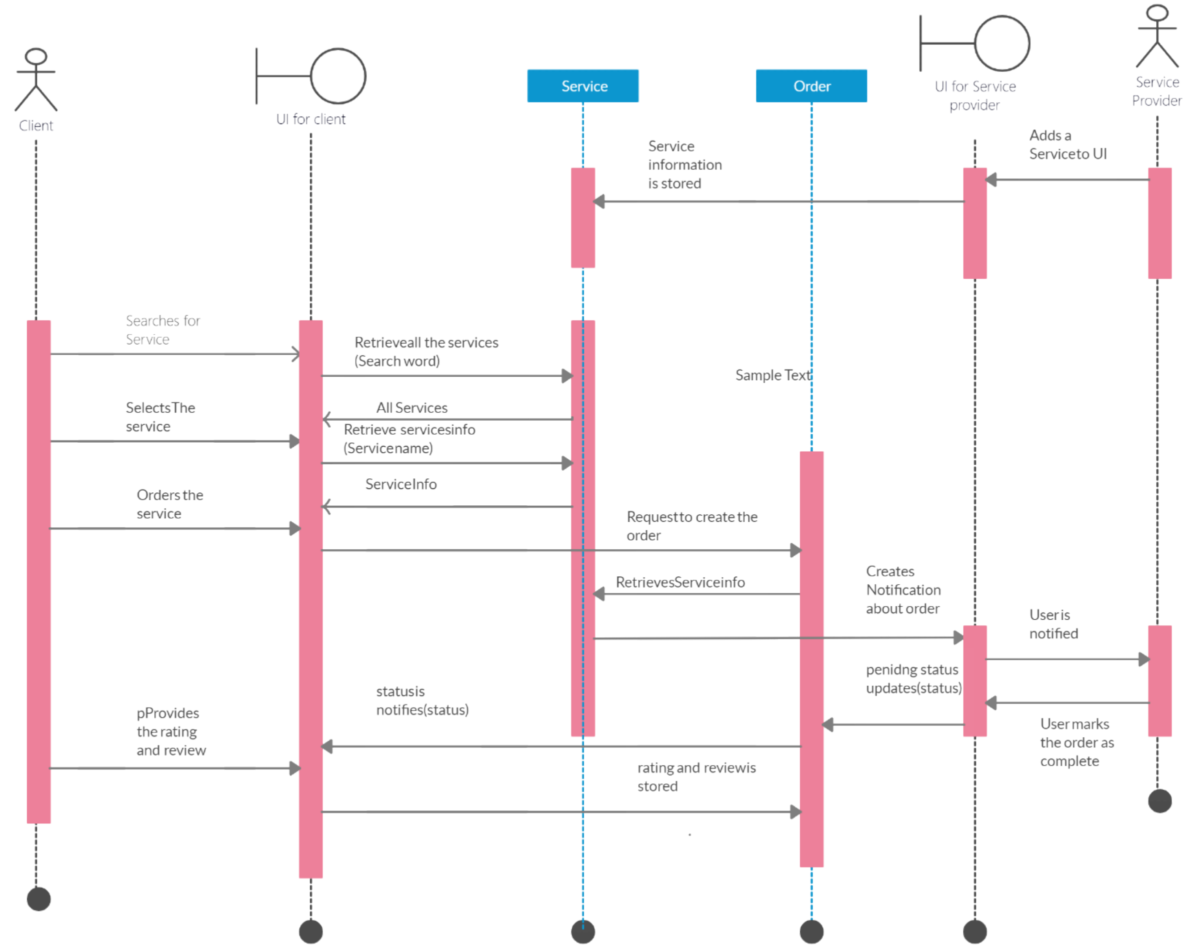

user
+ Email: string
+ ID: string
+password:string
+ name:string
1..1
1
1
client
+ location: string
+ ID: string
service provider
- ID: Type
+ location: Type
+about:string
+phone no:string
1..*
1..*
1
1
Service
+ chanrges: string
+ ID: string
+avg rating:int
+decsrtiption:string
+name:string
Order
+ date: string
+ ID: string
+rating:int
+raeview:string
1
1..*

ER Diagram

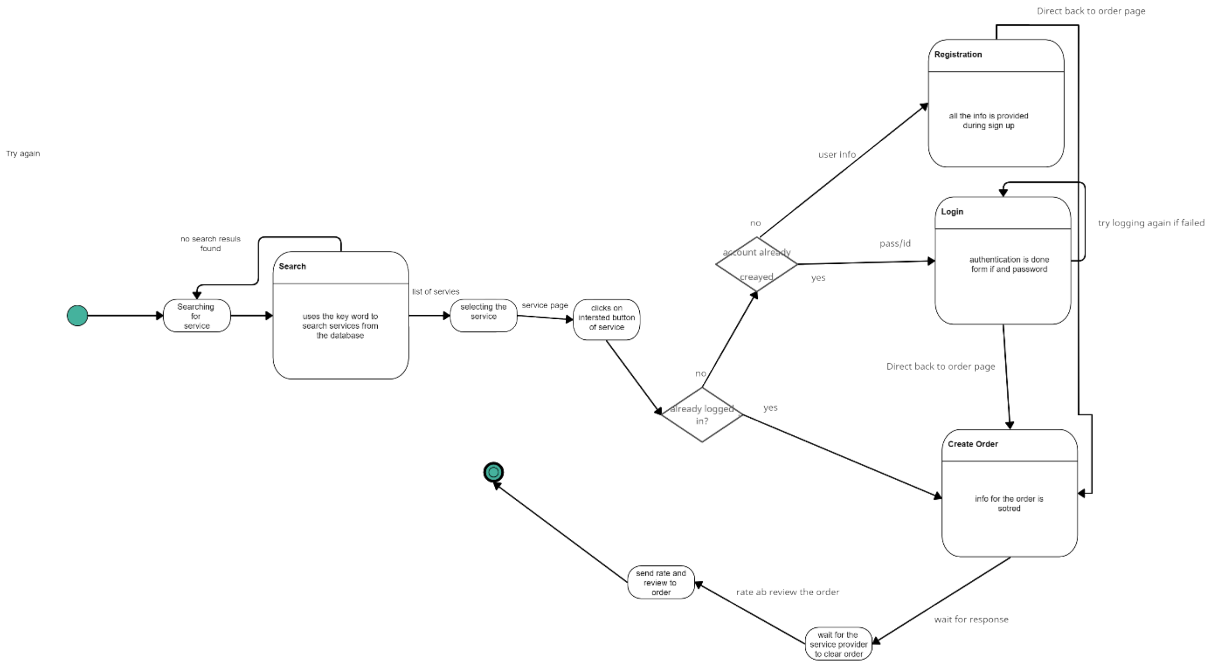

Name
Email
Password
user
has a
has a
House Address
Client id
ClientAccountPortal
Service Proider Id
Work Place Address
Phone no
About info
Out of Office Status
ServiceProviderAccountPortal
enlists
creates
Service
Service Name
About Service
gets a
Service Order
Review
Charges info
impressions
Clicks
Availablity Status
Rating
Average Rating
date

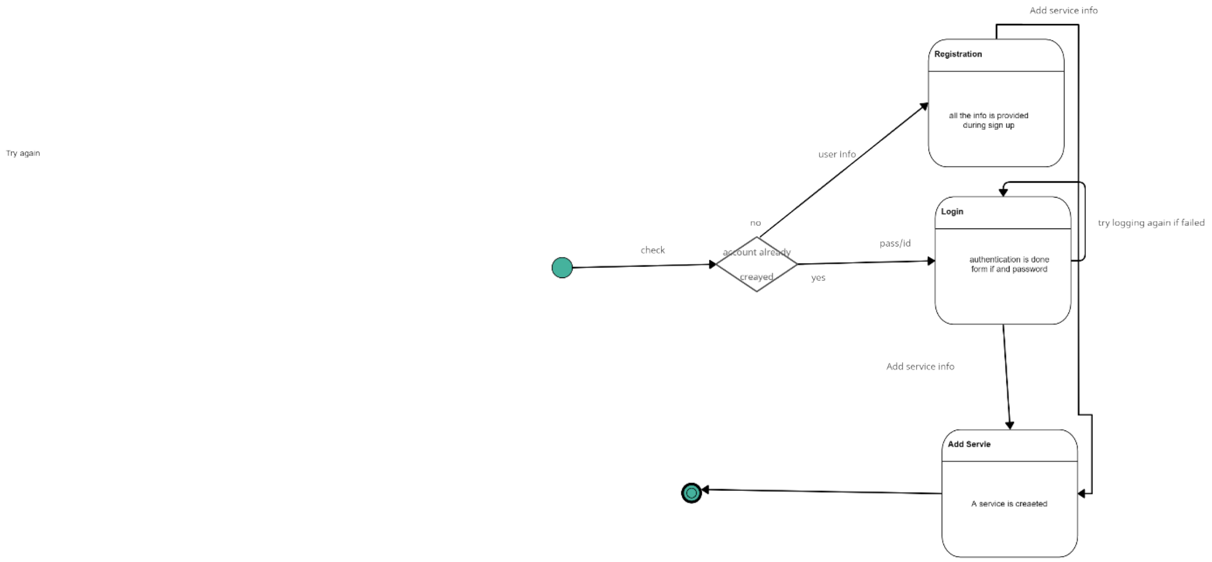
8.2. Application Design

8.2.1 Sequence Diagram

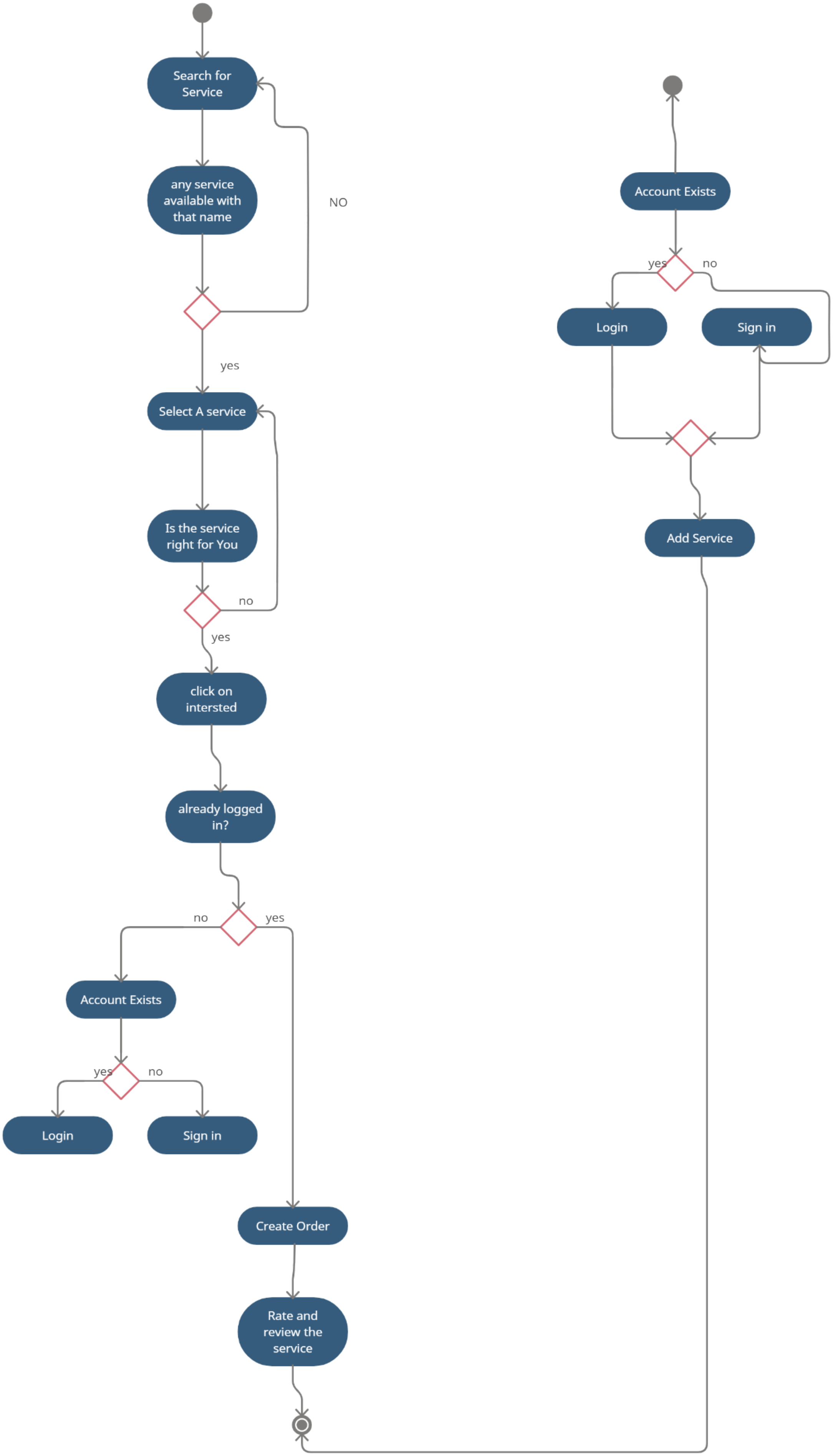

Client
UI for client
Service
Order
UI for Service provider
Service Provider
Adds a Serviceto UI
Service information is stored
Searches for Service
Retrieveall the services (Search word)
Sample Text
SelectsThe service
All Services
Retrieve servicesinfo (Servicename)
Orders the service
ServiceInfo
Requestto create the order
RetrievesServiceinfo
Creates Notification about order
Useris notified
penidng status updates(status)
statusis notifies(status)
pProvides the rating and review
User marks the order as complete
rating and reviewis stored

8.2.2 State Diagram


Direct back to order page
Registration
all the info is provided during sign up
Try again
user info
Login
try logging again if failed
no
no search resuls found
account already creayed
pass/id
authentication is done form if and password
Search
yes
list of servies
Searching for service
uses the key word to search services from the database
selecting the service
service page
clicks on intersted button of service
Direct back to order page
no
already logged in?
yes
Create Order
info for the order is sotred
send rate and review to order
rate ab review the order
wait for response
wait for the service provider to clear order



8.2.3 Activity Diagram


Search for Service
any service available with that name
NO
yes
Select A service
Is the service right for You
no
yes
click on intersted
already logged in?
no
yes
Account Exists
yes
no
Login
Sign in
Create Order
Rate and review the service
Account Exists
yes
no
Login
Sign in
Add Service

9. References

https://www.djangoproject.com/

10. Appendices

None