

*CSE 471*  
*System Analysis & Design*



*Inspiring Excellence*

*Lab Report*

***Project Name : Cleaning Service & Hiring System***

*Group: 6*

*Group Members :*

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*Submitted to :*

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*Date of Submission : 16/12/2022*

## **-Introduction**

Quality cleaning services have never been more important. We are all aware of the value of having a clean, sanitary environment for our health. At The Cleaning Authority, we also know our time is limited. We know how difficult it is to maintain a clean space while managing every other part of our life, from work to children, and everything in between. That's why we offer comprehensive cleaning services that can be fit to your needs. Now, just as every mechanic needs good tools to work, a cleaning service business needs a sound online booking system. Without the appropriate equipment, we will work longer and less efficiently. That is why we do not want it. The main purpose of this project is to make the hiring process easier for the customers. On the other hand, it will make sure that the workers get their desired value. Both of the parties can be benefited as this service assures efficiency.

## **-Motivation**

We truly live in a digital age. People everywhere use phones and computers to communicate, learn, have fun, and do business on a daily basis. Entire industries are leveraging the power of modern technology to streamline their processes, expand their customer base, and improve employee productivity. The cleaning industry is no exception. Having a quality website is an absolute must, because nowadays both the clients who want a maid and also a worker/maid suffers in this process. People have to search over and over from this area to that area for a maid, also if they find a maid they have to bargain for the price of their services. Again,maid/workers also have to search for a job. Sometimes they don't know suddenly where they should go and who needs them right now. Our main motive is to connect these types of workers to the clients or customers so that both of them can have resolution. Also, offering online booking and payment options is considered the norm in the 21st century which is included in our system..

## **-Project Usage**

- Automating repetitive tasks that would otherwise take a long time.
- Helping you optimize your pricing to maximize profitability.
- Making it easy to follow up on sales leads.
- Taking employee efficiency to a higher level.
- Helping you ensure customer satisfaction.
- Making you a part of a community of successful maid service owners.

## System Request

Project Sponsor: Munia Shaheen, Chairperson of AOT Group. Akib Zaved Ifti, CEO of D&P Org.

Business Need: This project has been initiated to make a profit from the customers who need a cleaner or cleaning service. Also, gathering customers and making them dependent on this service to have a housemaid. It will improve access to information and provide security and a secured job for the workers. Moreover, this project provides a solution for the need of a regular house worker than the existing solutions in the market.

Business Requirements:

- Providing user registration, login, and verification process.
- Displaying the customers what service they want
- Customers can generalize the cleaner by viewing their profile.
- Search for areas, from where they need the services.
- Customers can have one free service after they sign in for the first time.
- Multiple paying methods.
- The system will take updated information from the user, whether the cleaner has arrived or not.
- A proper feedback system will be there so that the users can share their thoughts.
- Service information will be provided so that the users can take help and necessary information from the agents.
- The organization will inform cleaners/maids so that they can know about this service and can easily share their requirements for a cleaning job.

Business Values:

### Tangible

→ Approximately ₳75000 can be generated from showing online advertisements (ex. Google AdSense).

→ The service can benefit up to 25% from mobile banking services when transactions are made from this certain source.

→ ₳15000 can be gained from assigning cleaners for the first time to the customers

→ ₳30000 will be earned on a monthly basis by splitting the commission part from the cleaner's salary.

### Intangible

- Improved customer service, saving customers time
  - Faster assigning maids to the customers
  - Reduced dependency on one single maid
  - Maintaining fairness to the cleaners and maids by giving them a day off every week.
  - Fewer in-person activity
  - Households will be cleaned and get guaranteed service
- Works will get a job-like opportunity and benefits

Special Issues or Constraints:

- Create security issues for the users who break the law or send disrespectful behaviors to the agents.
- Due to the rapid increase in enrollment, the project must be completed by the 15th of February 2023.
- The system must be in operation during the holiday seasons.

## Requirement Analysis

### Functional Requirements:

1. Clients can register and enroll in a new account
2. During new account registration, there will be “Enter the password” and “Enter the password again” and both of them will have to match, otherwise registration will not be done.
3. After creating a new account the system will show the users a welcome message.
4. The system will have an authentication system to verify the user's Account.
5. Forgot password option will be available in the system for users.
6. Users are allowed to edit their profiles.
7. The system will verify whether the user provides a complex password or not.
8. Users will be able to log out of the system.

### Clients Account:

9. After logging into the system, clients will be able to see their profiles.
10. Search for the cleaners in their area
11. Request to book a particular cleaner.
12. Request for any cleaner, every cleaner in the client's area will get a request.
13. Rate and comment about a particular cleaner.
14. There will be a complaints option for clients.
15. Search and request cleaners in a particular price range.
16. Based on clients' ratings and points they will get offers occasionally.

### Cleaners account:

17. Cleaners will be able to see their information after logging into the account
18. Cleaners will be able to accept/reject a client's request.
19. Cleaners can rate a client.
20. There will be a form to complain about any client.
21. Based on their working hours and rating they will get a bonus occasionally.

### Payment:

22. There will be a page where clients can choose a particular payment method

### **Non-Functional Requirements:**

#### Operational:

1. The system will work on a mobile, tablet, and pc
2. All browsers must have access to run this system.
3. System will have a friendly user interface, so all types of people can use it easily.

#### Performance:

4. The system will be able to handle at least 3000 users at a time.
5. With an increasing number of users the system must be able to handle that amount of users.
6. The system downloads new status parameters within 5 minutes of a change.
7. The database should be used efficiently.

#### Security:

8. Users' personal information will not be shared with anyone.
9. Complaints about users and cleaners will be kept anonymous.

#### Cultural and politics:

10. No hate or threatening speech will be allowed in the system.
11. Users violating the social rules of the system will be penalized.
12. The system should obey the worker's law for its cleaners.

#### Maintainability:

13. New version of the software will be automatically deployed for the users using automation.

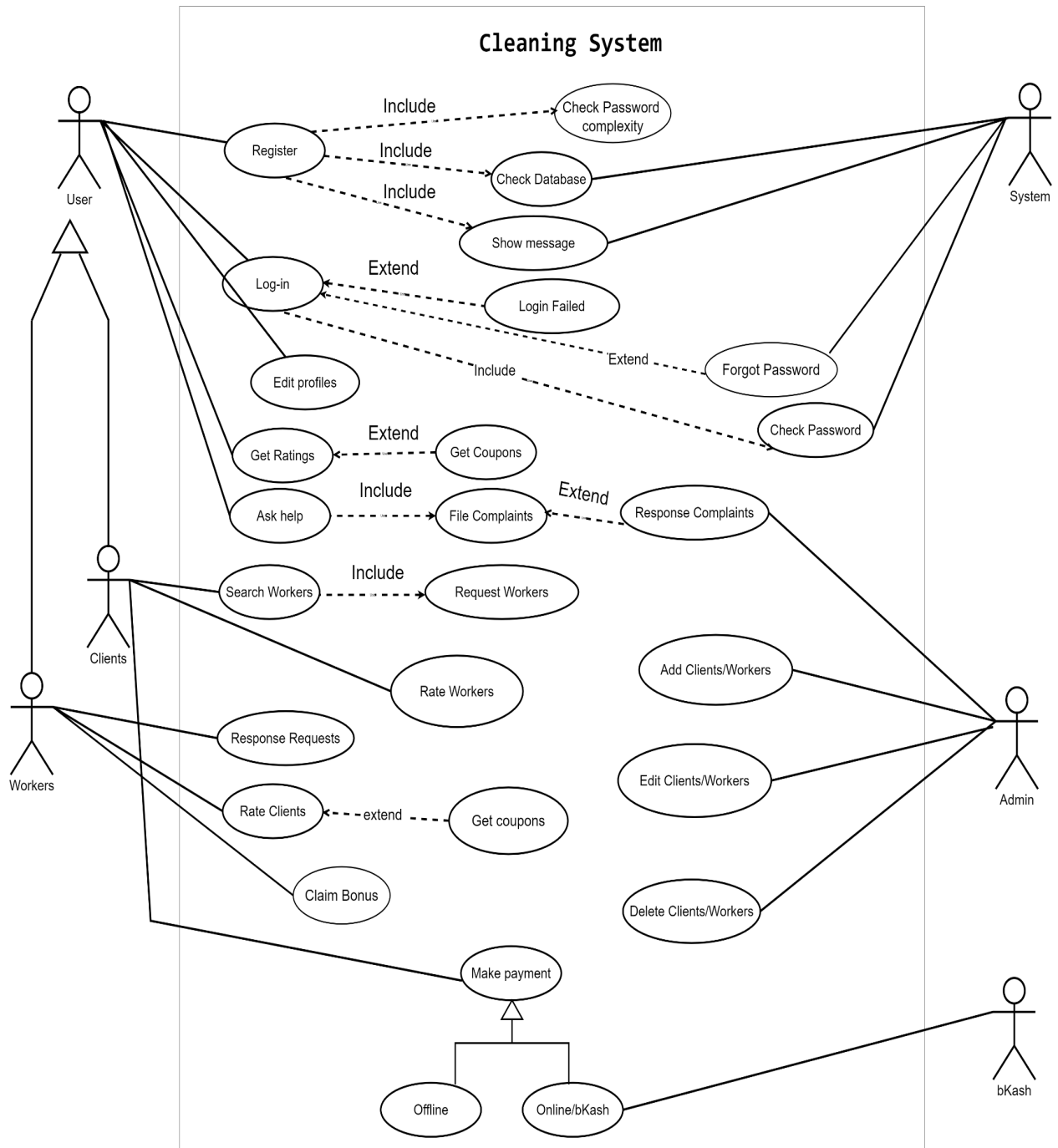
#### Usability:

14. Both Bangla and English language are supported in the system so that everyone can understand.
15. Font size will be maintained for all types of devices

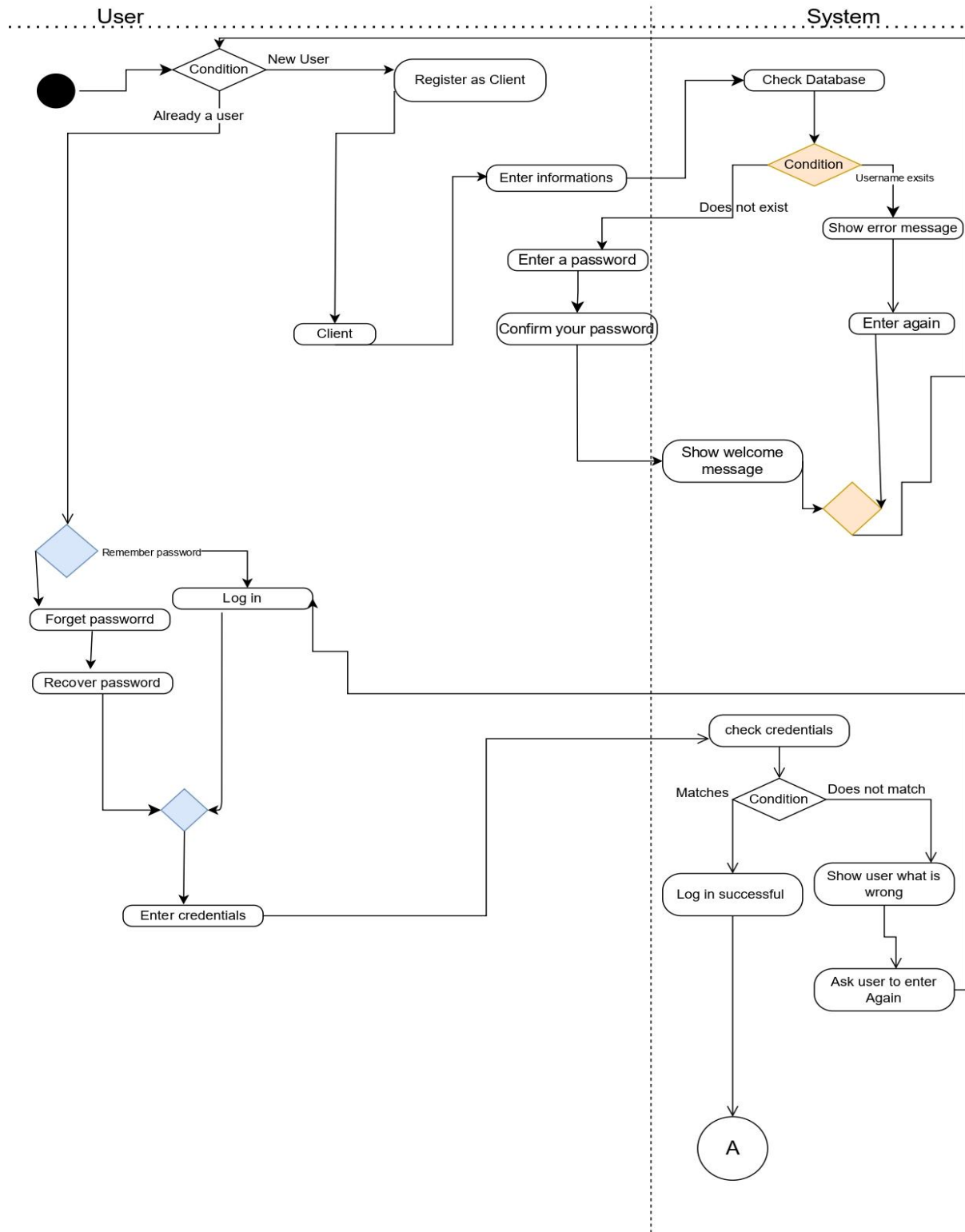
#### Portability:

16. Now the system works on android and windows, but in future it should have access to ios and linux.

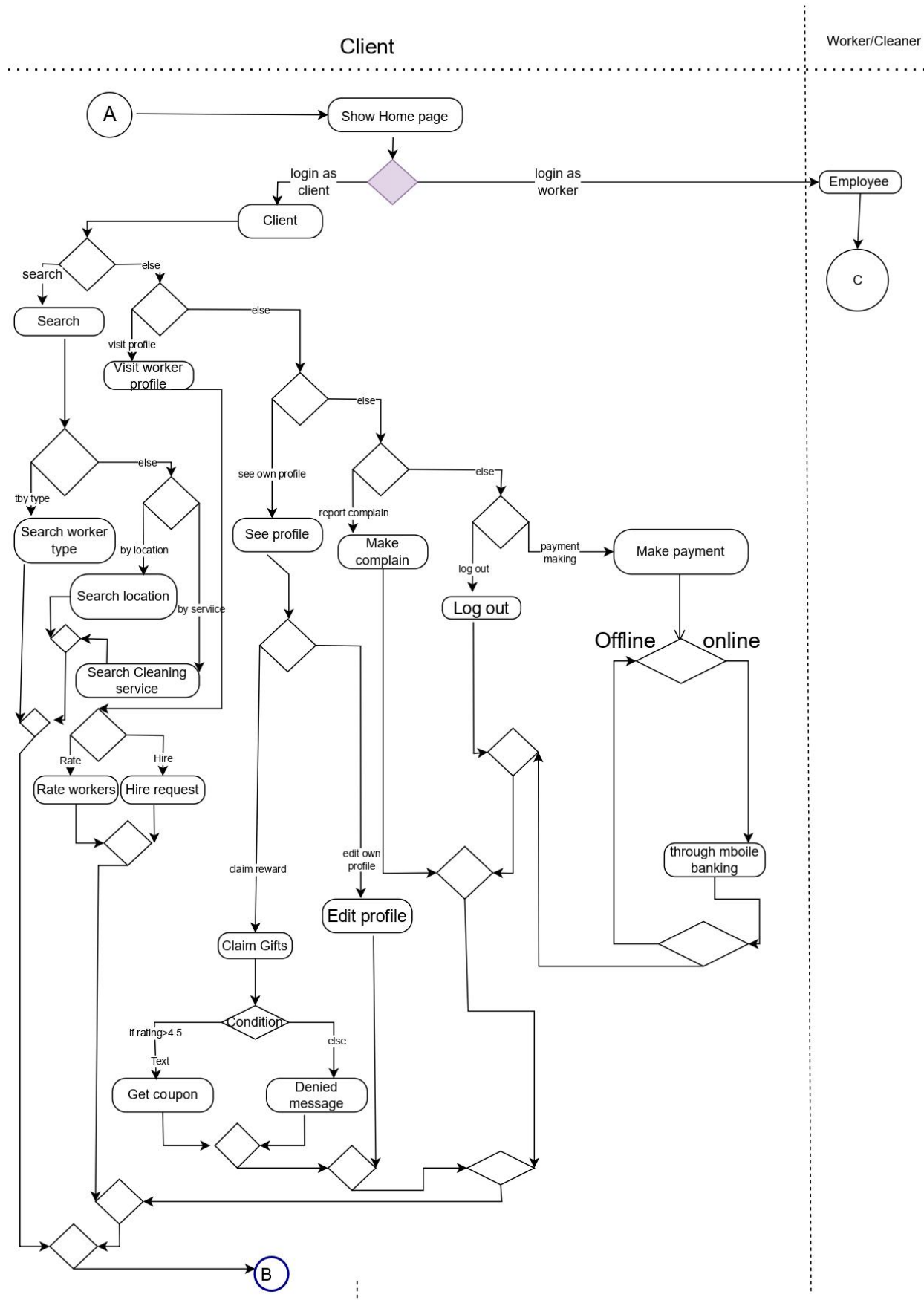
# Use Case Diagram

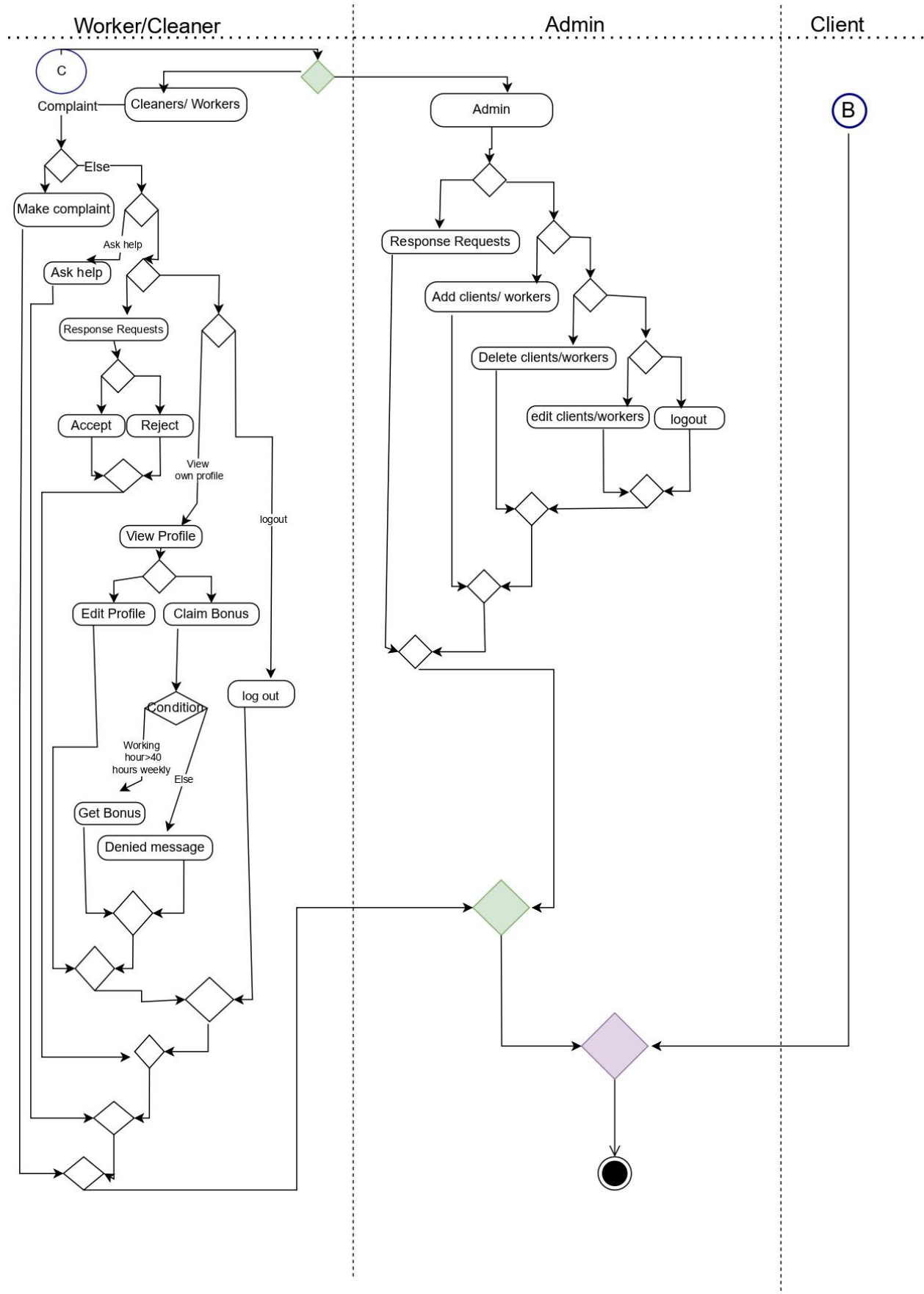


# Activity Diagram

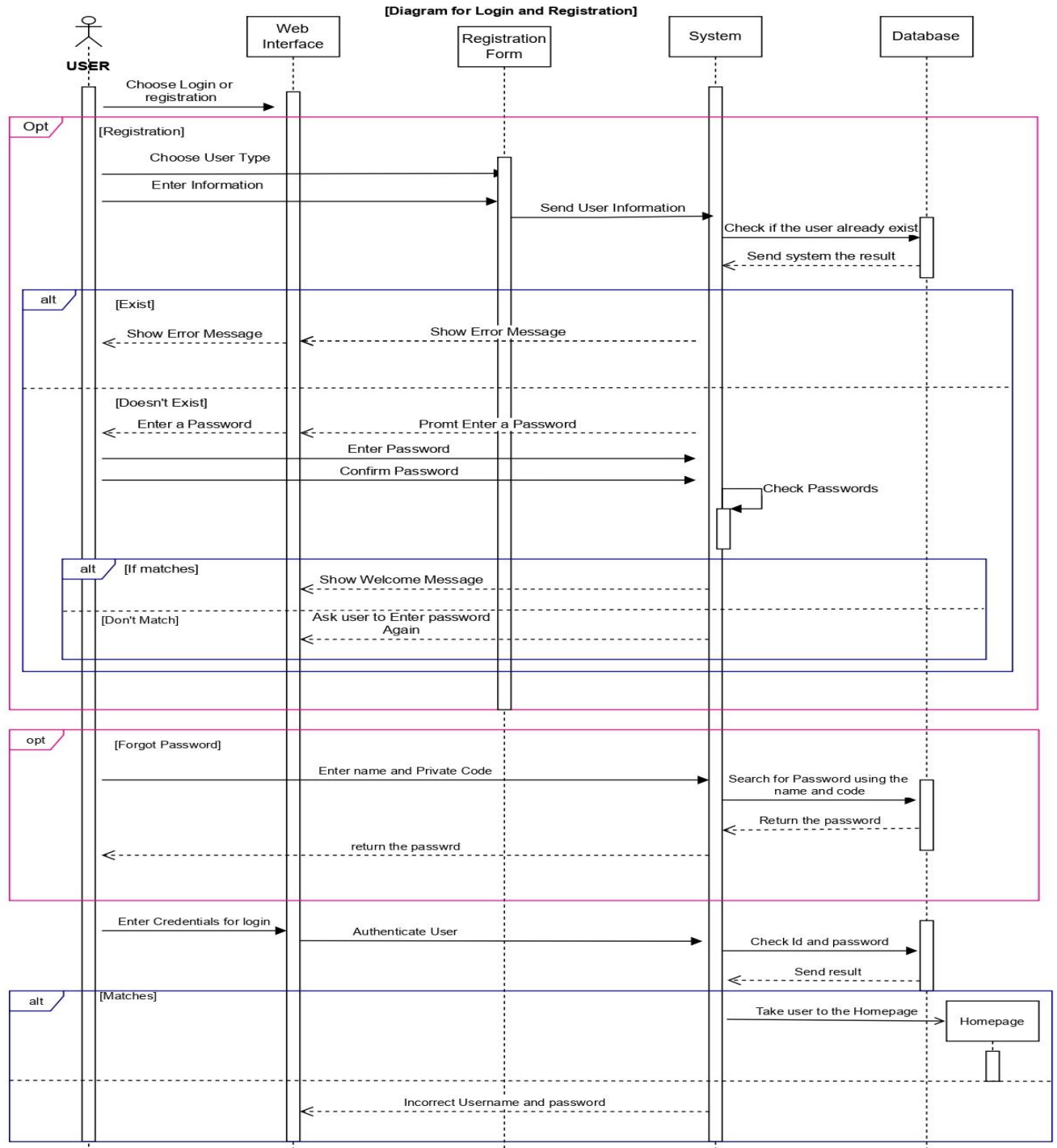








# Sequence Diagram



# [Diagram For workers]

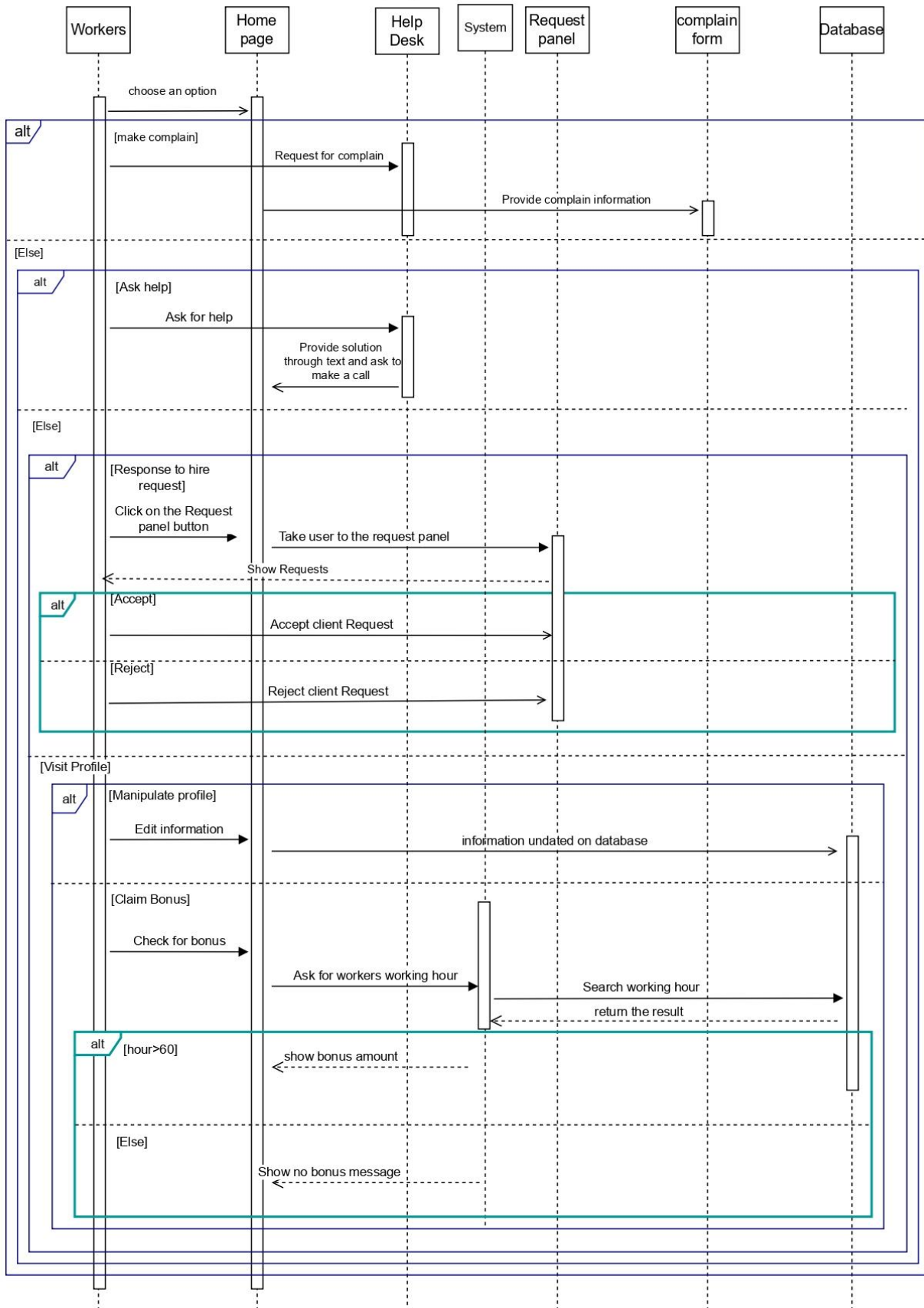


Diagram for Admin

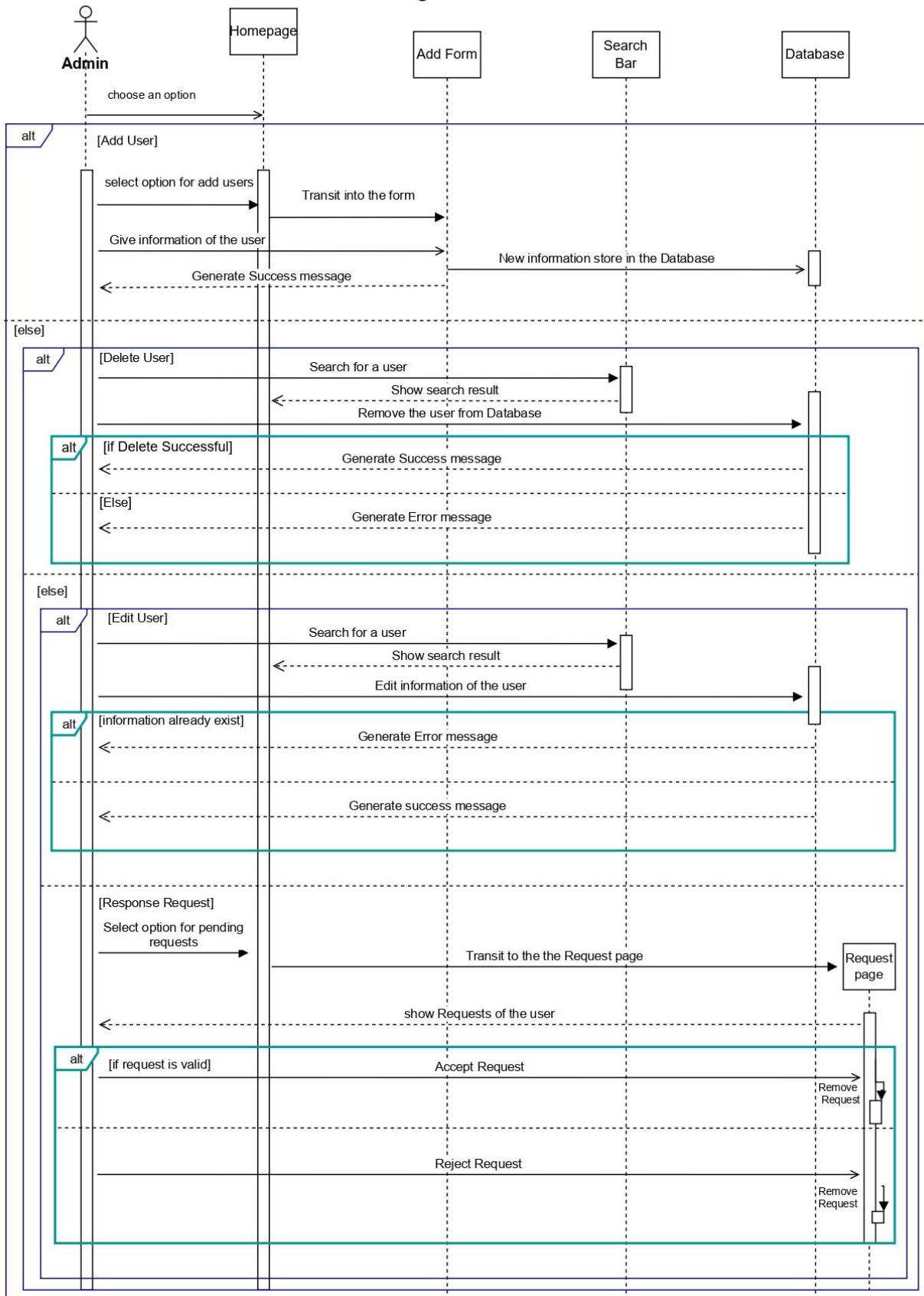
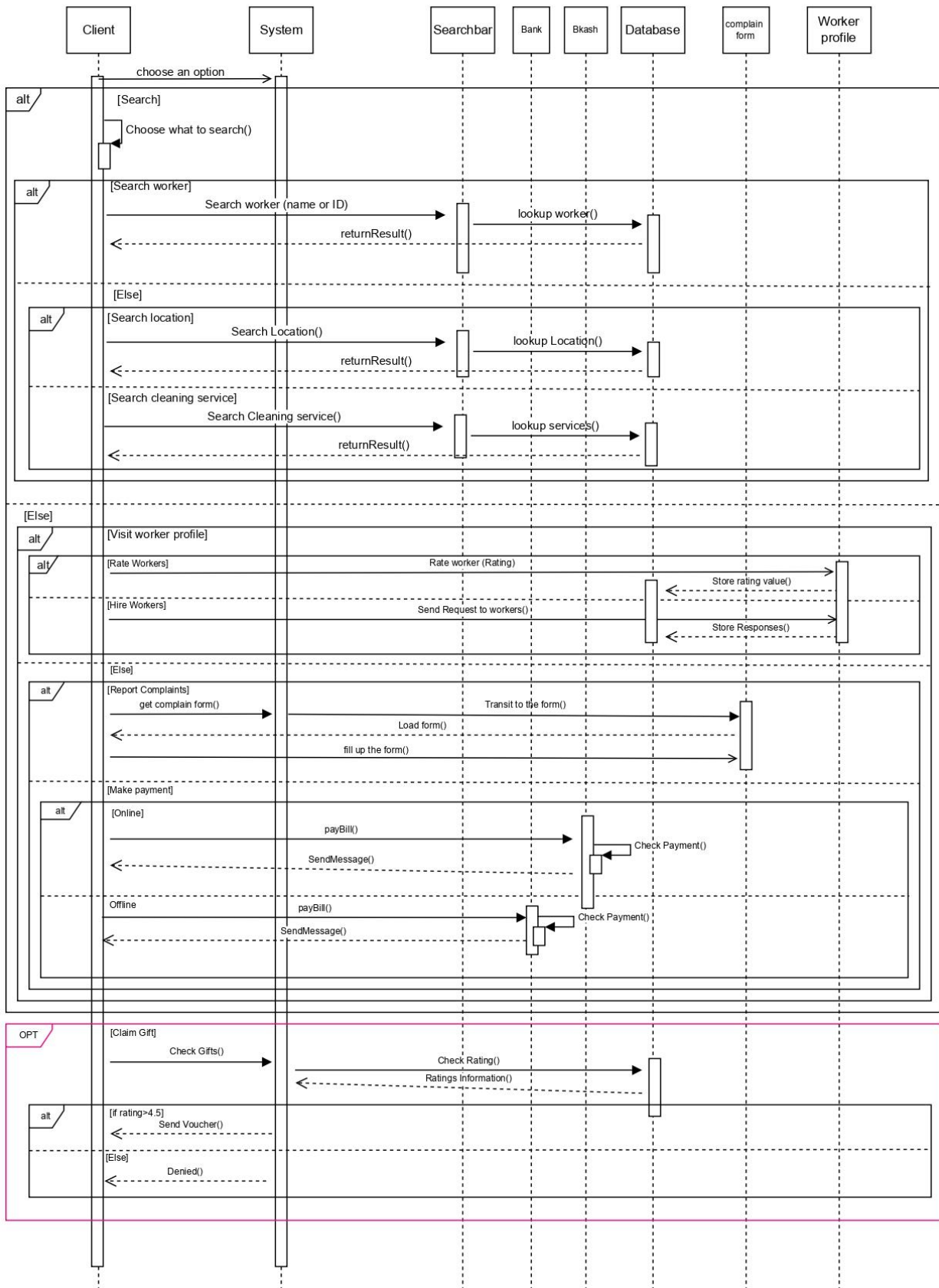


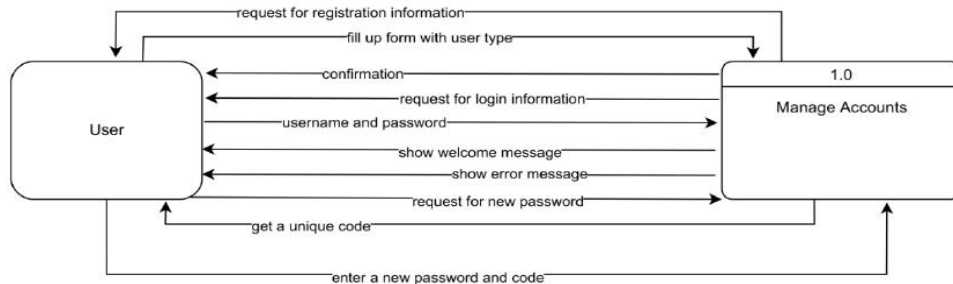
Diagram for Client



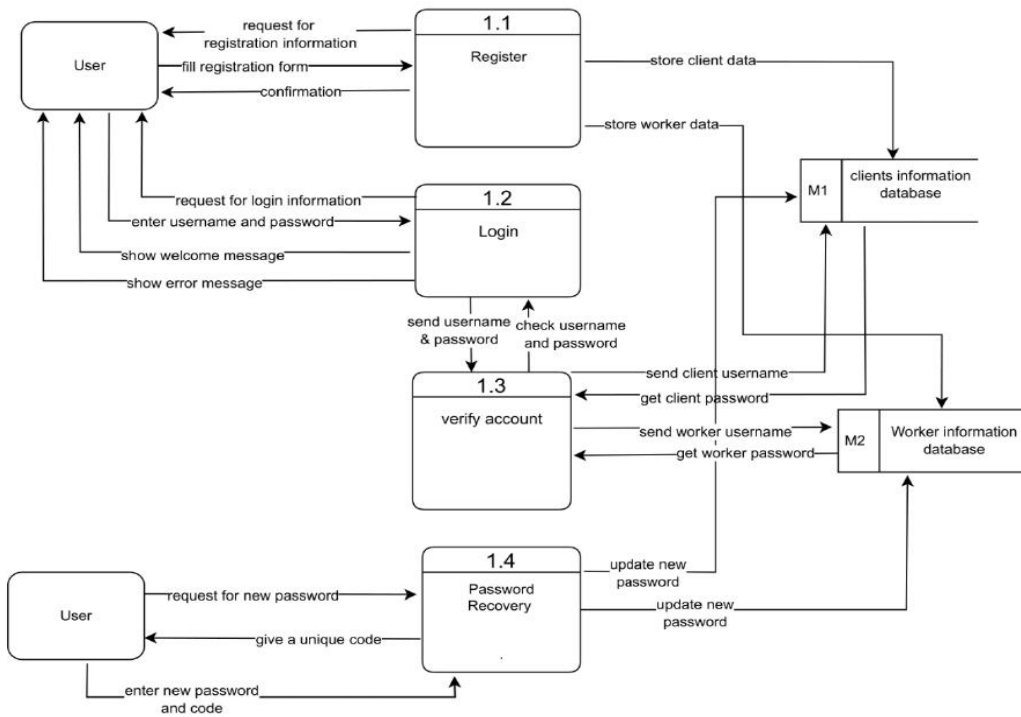
# Data Flow Diagram

## Account management DFD

### Level 0

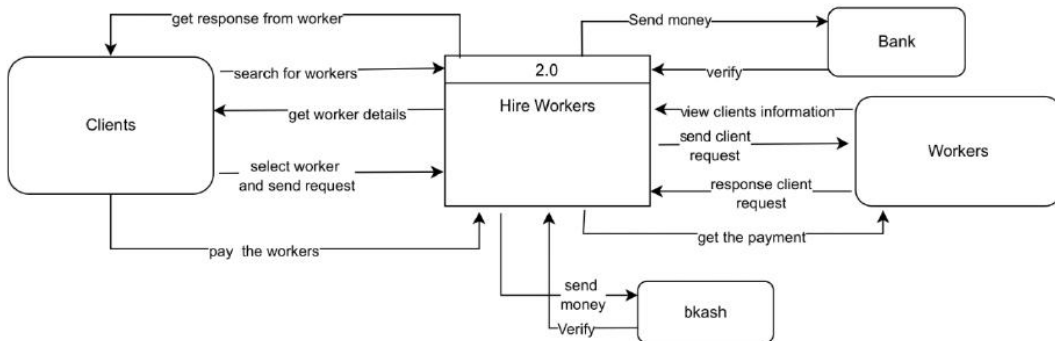


### Level 1

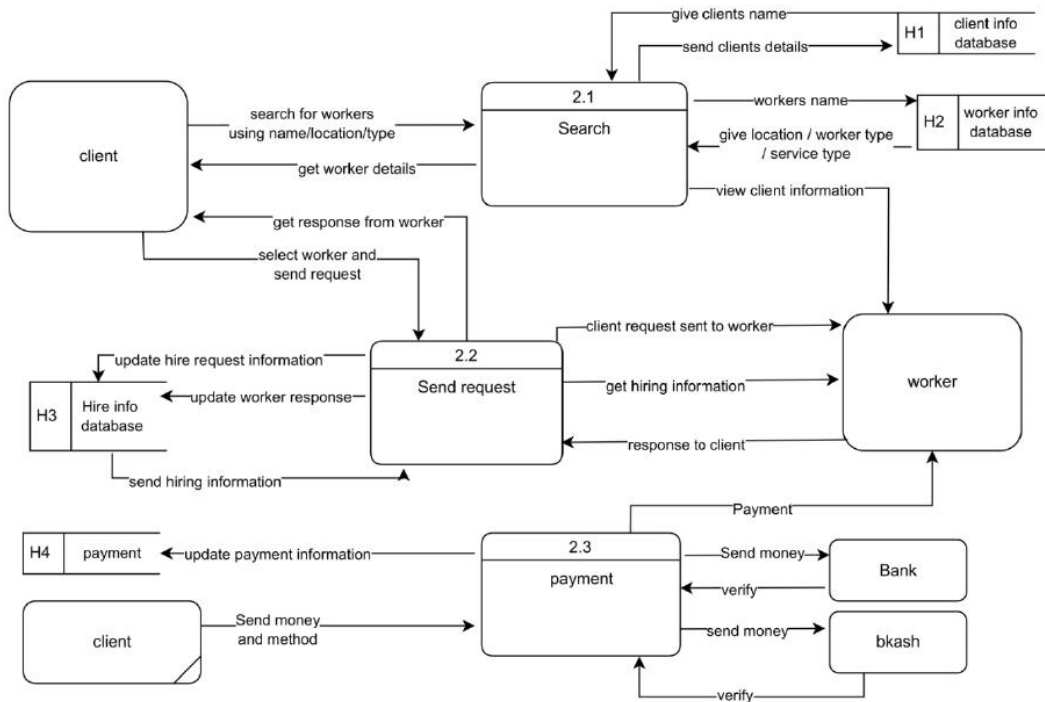


## Hiring DFD

### level 0



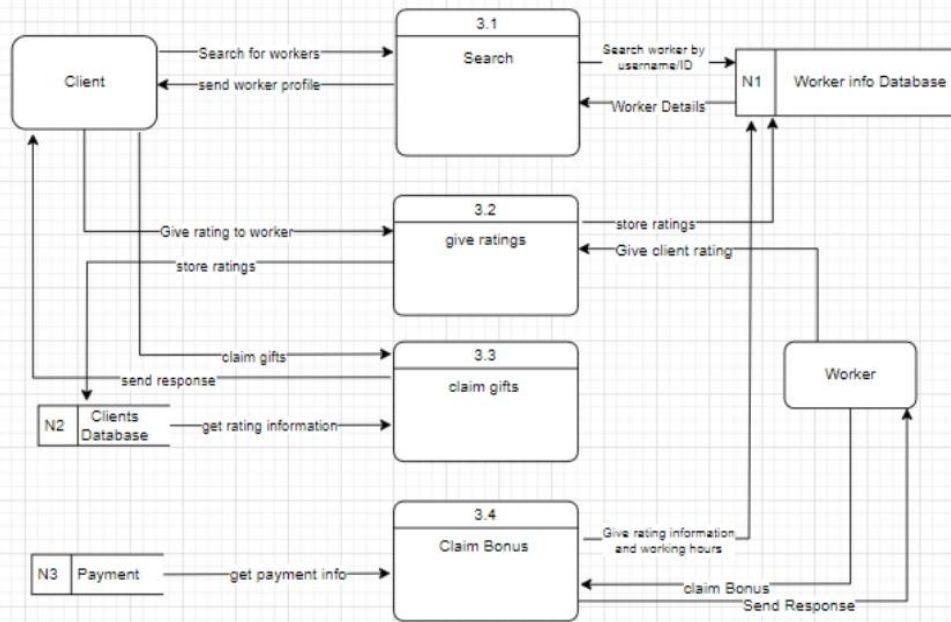
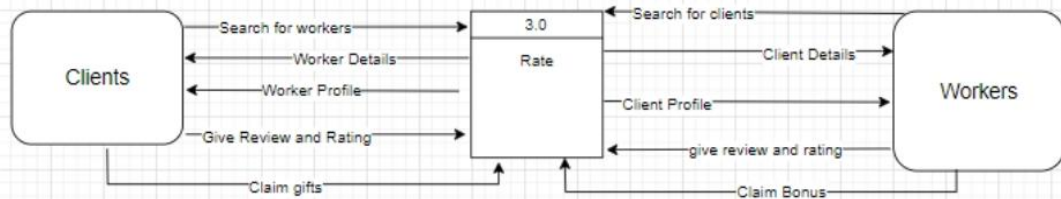
### level 1



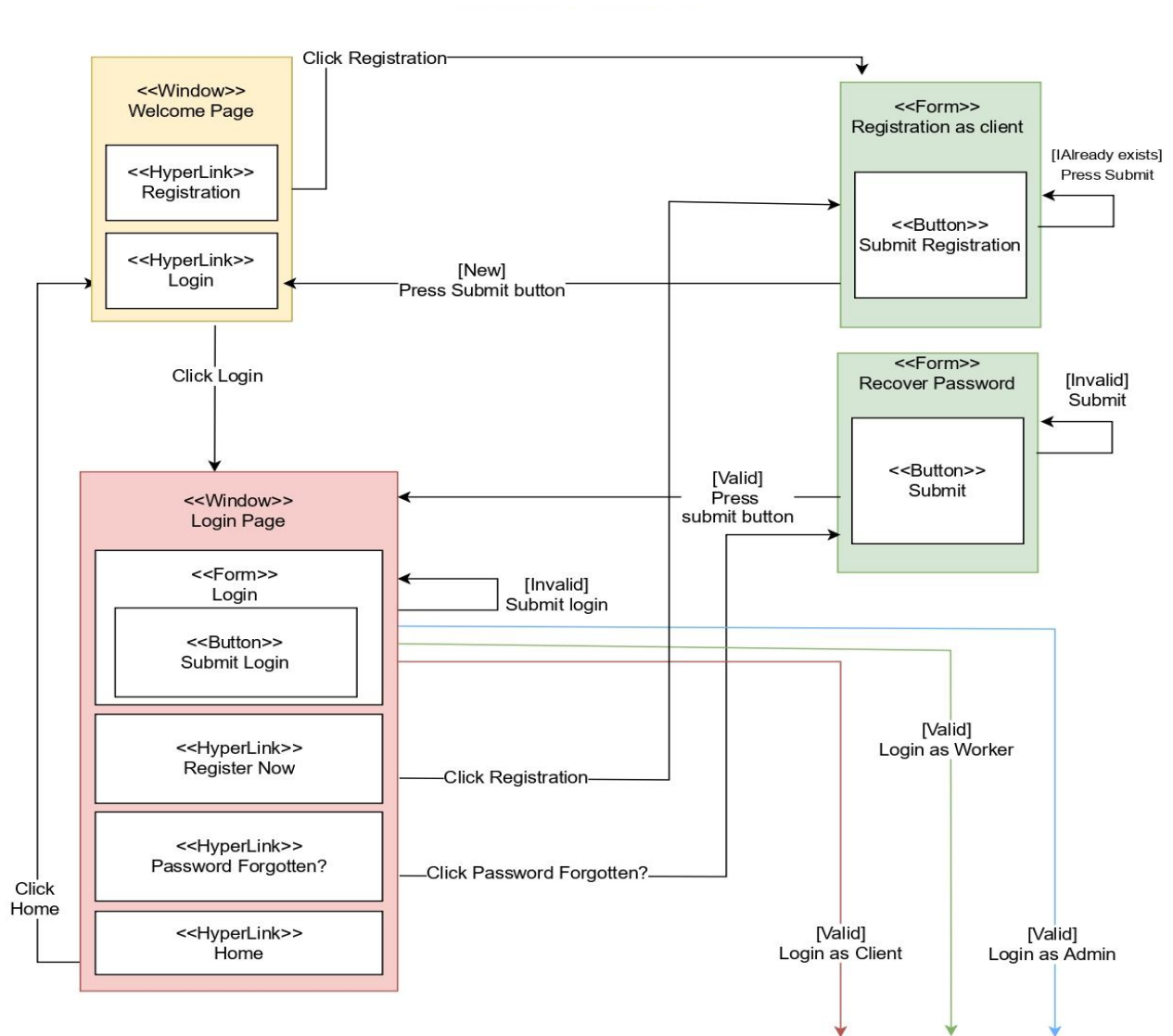


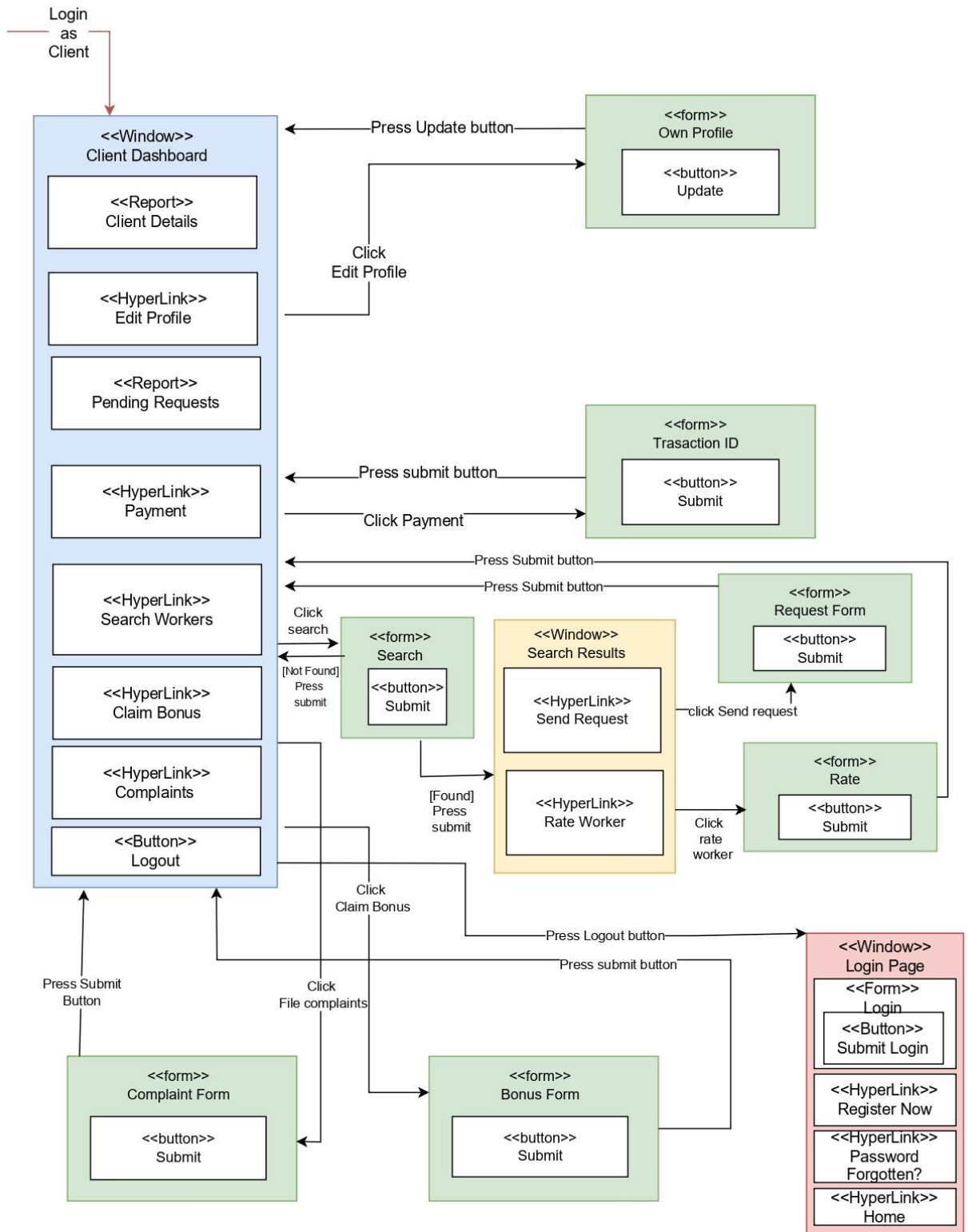
## Rating DFD

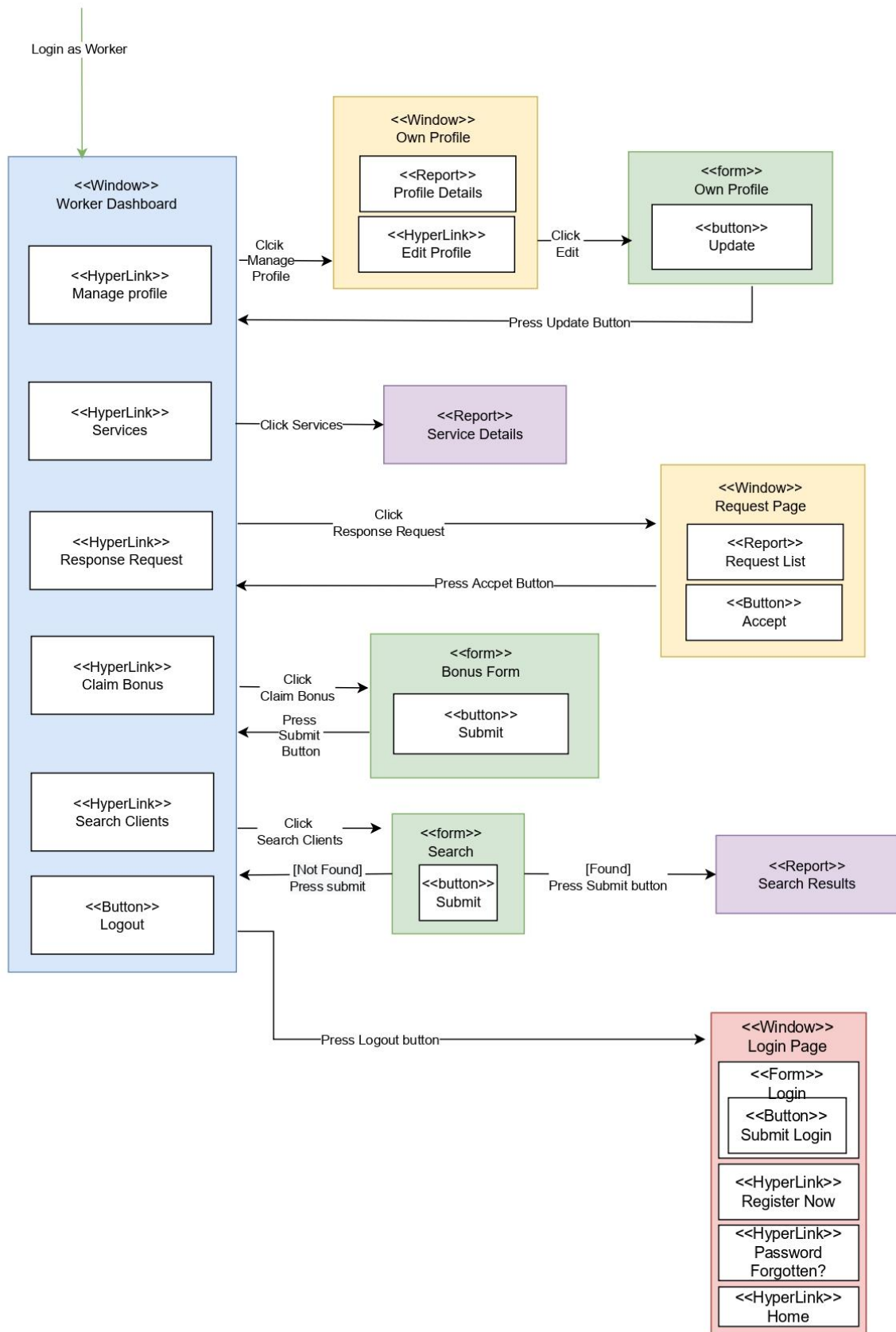
Level : 0

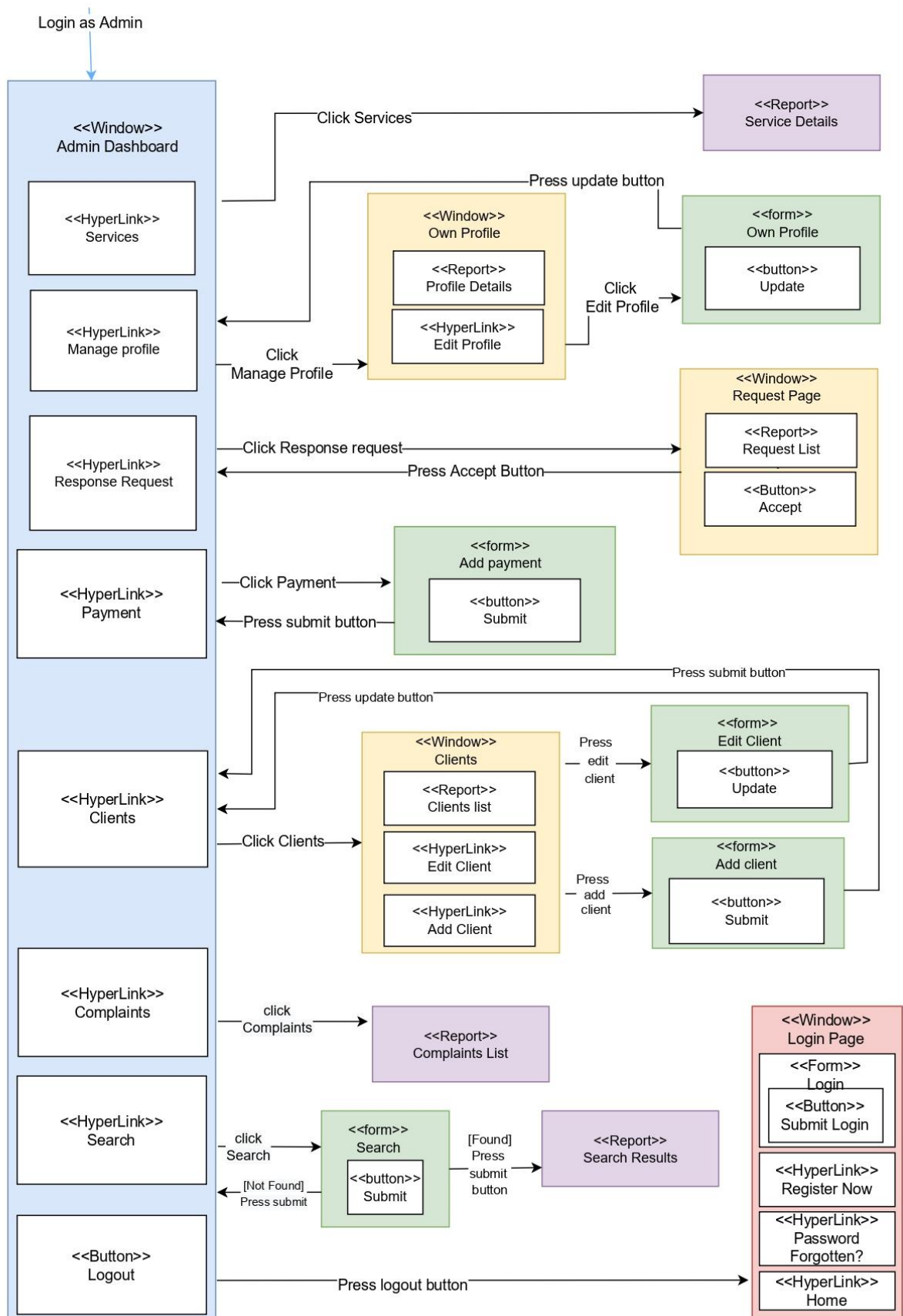


# Windows Navigation Diagram









## Conclusion

As, the cleaning service system and worker hiring system have become necessary in this 21st century as people are put up with this worker hiring. We implemented our system with all the necessary items which can be beneficial to both the workers and clients. Moreover, multiple functional and nonfunctional requirements are summed up for this system. Also, we use diagrams like use case, activity, sequence, data flow, windows navigation to visualize this project.

## Reference

1. Akther, Tabassum, & Zaman. (2022). Web Platform for Social Workers. *Project for CSE471*.