

**A
PROJECT REPORT**

ON

Three-C (Connect Contact Conduct)

Submitted in partial fulfillment for the award of
Post Graduate Diploma in Advance Computing

(PG-DAC) from

INSTITUTE OF EMERGING TECHNOLOGIES

Authorized Training Centre



Under the Guidance of

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BY

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CERTIFICATE

This is to certify that the project report entitled **Three-C(Connect Contact Conduct)** is a bonfire work carried out by **Nukalwar Parag Sambaya, Markad Akash Balkrishna, Attar Aijaj Peermohammad, Kadam Babalu Dnyandev** and submitted in partial fulfilment of the requirement for the C-DAC ACTS, DAC course in Institute of Emerging Technology in the batch of Aug 2019.

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External Examiner

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This project **Three-C(Connect Contact Conduct)** was a great learning experience for us and we are submitting this work to Advanced Computing Training School (CDAC).

We are very glad to mention the **Mrs. Prachi Godbole** for her valuable guidance to work on this project. Her guidance and support helped us to overcome various obstacles and intricacies during the course of project work.

Our most heart full thanks goes to **Mr. Sangram Patil (Director ,IET)** who gave all the required support and kind coordination to provide all the necessities like required hardware , internet facility and extra lab hours to complete the project and throughout the course up to the last day here in C-DAC ACTS, Pune.

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Abstract

3C(Connect, Contact, Conduct) is a software to connect “Consumers” and “Service provider” with each other to fulfill the need of the Consumer. It is Consumer flexible software which will allow consumer to post about the problem and the necessary service provider will bid on the post, Consumer will be able to select one bid and the Service Provider of that particular bid will get the job. This system will help the freelancers to grow their business and showcase their skills. From consumer’s point of view it will solve the regular household problems which are important but not feasible for consumer due to lack of required skills. It will also reduce the hassle of searching for services and service provider.

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1 Introduction

3C(Connect, Contact, Conduct) is a software to connect “Consumers” and “Service provider” with each other to fulfill the need of the Consumer. It is Consumer flexible software which will allow consumer to post about the problem and the necessary service provider will bid on the post, Consumer will be able to select one bid and the Service Provider of that particular bid will get the job. This system will help the freelancers to grow their business and showcase their skills. From consumer’s point of view it will solve the regular household problems which are important but not feasible for consumer due to lack of required skills. It will also reduce the hassle of searching for services and service provider.

2 Problem definition and Scope

2.1 Problem Definition

In the fast life of city it is difficult to get the service needed to solve the daily needs of the consumer like plumbing, maid, electric issues etc , especially for the people who are new to the city. Three C caters the gap between Consumer and Service Provider to give a desired service to the consumer based on Post-Bid service.

2.2 Goals and Objectives

3C(Connect, Contact, Conduct) is a software to connect “Consumers” and “Service provider” with each other. It is a platform which will cater to the everyday problems of consumers - Plumbing, Maids, Electrical Repairs etc - which can be outsourced to the professionals. Also, it will create opportunities for freelancers to grow their businesses and skills. The platform will solve everyday household problems which are important but not feasible for consumer due to lack of required skills. Consumer will post about the problem. The Service providers will bid on it and Consumer will select the most convenient amongst all.

3 Software Requirement Specification

The objective of SRS document is to formally describe the system's high level requirement including functional requirement, non-functional requirement.

3.1 Proposed System

The System Three C will cater the bridge between Consumer and Service Provider and the system is designed around Consumer which means Consumer will make a post on the problem and based on the category the Service Provider will make a bid, so it is designed to be a Consumer friendly system.

3.2 Scope

Consumer will have the freedom of selecting a time slot according to his convenience. Service Provider will be able to see all posts related to his/her skills on 3C platform. He can bid on the most economic work-post according to his convenience. It will build trust between the engaging parties. It will be more economic for the parties to carry their business through trusted 3C platform. The platform will secure economic interest of parties without compromising work quality and security.

4 System Modules

Consumer using this software should get registered and provide his details like Name, Phone number and email ID to the system.

Service provider who is willing to sell service should get registered and provide his details like Name, Address, Phone number, Qualification details, Skills and email ID to the system.

Registered Consumer will be able to make a post about his problems(Title, description) based on a particular skills required to solve the problem. Consumer will be able to add date according to his/her convenience and Consumer must specify his locality/Area.

Registered Service provider will be able to see all posts based on his/her skills and would be able to bid on the post but he/she will not be able to see other bids.

When Consumer receives all the bids he will select ONE bid amongst all and the notification of acceptance will be sent to the service provider, after selecting the

bid Consumer can now share all the details (Name, Phone, Postal Address etc) to the service provider.

Once the bid is accepted by Consumer, service provider must do it and if the service provider is willing to cancel it then service provider must pay nominal fine to the system and inform to the system.

5 Performance-Requirements

Security

Registered Consumer will be allowed to post on the platform to seek service.

Each stakeholder will be able to access the system through authentication process.

System will provide access to the content, operations using Role based security (Authorization) (Permissions based on Role)

Using SSL in all transactions which will be performed stakeholder. It would protect confidential information shared by system to

System will automatically log of all stakeholder after some time due to inactiveness.

System will block operations for inactive stakeholder and would redirect for authentication.

System will internally maintain secure communication channel between Servers (Web Servers, App Servers, database Server)

Sensitive data will be always encrypted across communication.

Use proper firewall to protect servers from outside phishing, vulnerable attacks.

Reliability

The system will backup business data on regular basis and recover in short time duration to keep system operational

Continuous updates are maintained, continuous Administration is done to keep system operational.

During peak hours system will maintain same user experience by managing load balancing.

Availability

uptime: 24* 7 available

99.999%

Maintainability:

A Commercial database software will be used to maintain System data Persistence.

A readymade Web Server will be installed to host online site Web Site to management server capabilities.

IT operations team will easily monitor and configure System using Administrative tools provided by Servers.

Separate environment will be maintained for system for isolation in production, testing, and development.

Portability:

PDA: Portable Device Application

System will provide portable User Interface (ReactJS, CSS, JSX) through users will be able to access online freelancing platform.

System can be deployed to single server, multi-server, to any OS, Cloud (AWS)

Accessibility:

Only the registered Users will be able to post or bid on the platform. Admin will be able to see all the posts and bids.

Durability:

System will implement backup and recovery for retaining stake holders data, business operation data and business data over time.

Efficiency:

System will be able to manage all transactions with isolation.

Modularity:

System will be designed and developed using reusable, independent or dependent business scenarios in the form of modules.

These modules will be loosely coupled and highly cohesive.

System will contain the history of the posts, details of bids received, status of the work, payment status.

System will contain the work history of the service provider, personal details , ratings and review details. modules.

Scalability:

System will be able to provide consistent user experience to stake holders as well as visitors irrespective of load.

Safety:

System will be secure from malicious attack, phishing.

System functionalities are protected from outside with proper firewall configuration.

System will be always kept updated with latest antivirus software.
Business data will be backed up periodically to ensure safety of data using incremental back up strategy.

5.1 H/W Requirements & S/W Requirements

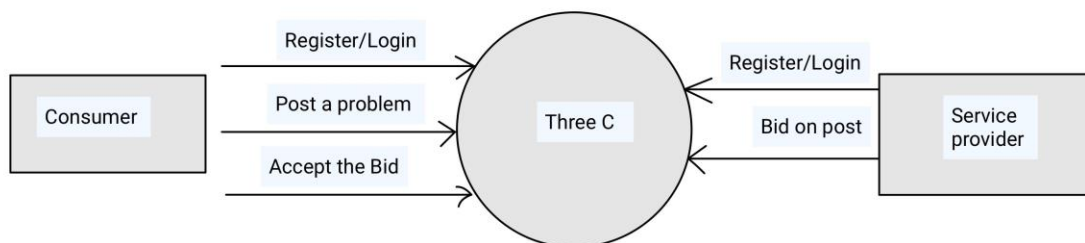
Java (SpringBoot)
Javascript (ReactJS)
Eclipse IDE
Visual Studio Code

6 UML Diagram

6.1 DFD (Data Flow Diagram)

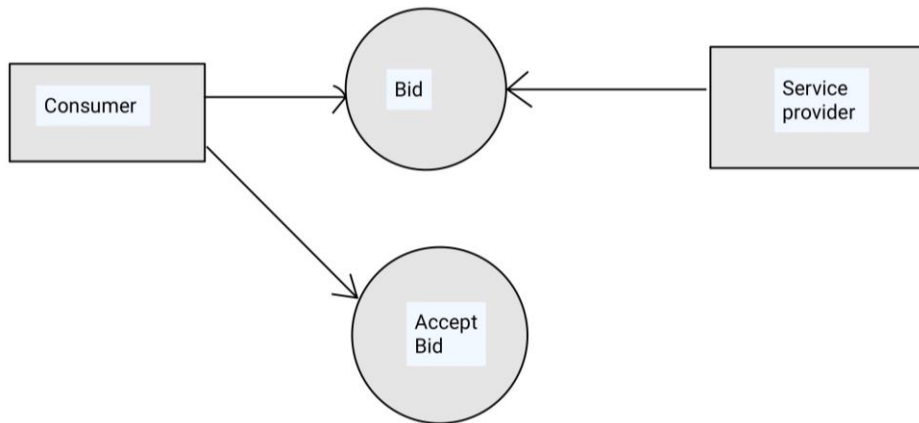
0-level DFD:

It's designed to be an abstraction view, showing the system as a single process with its relationship to external entities. It represents the entire system as a single bubble with input and output data indicated by incoming/outgoing arrows



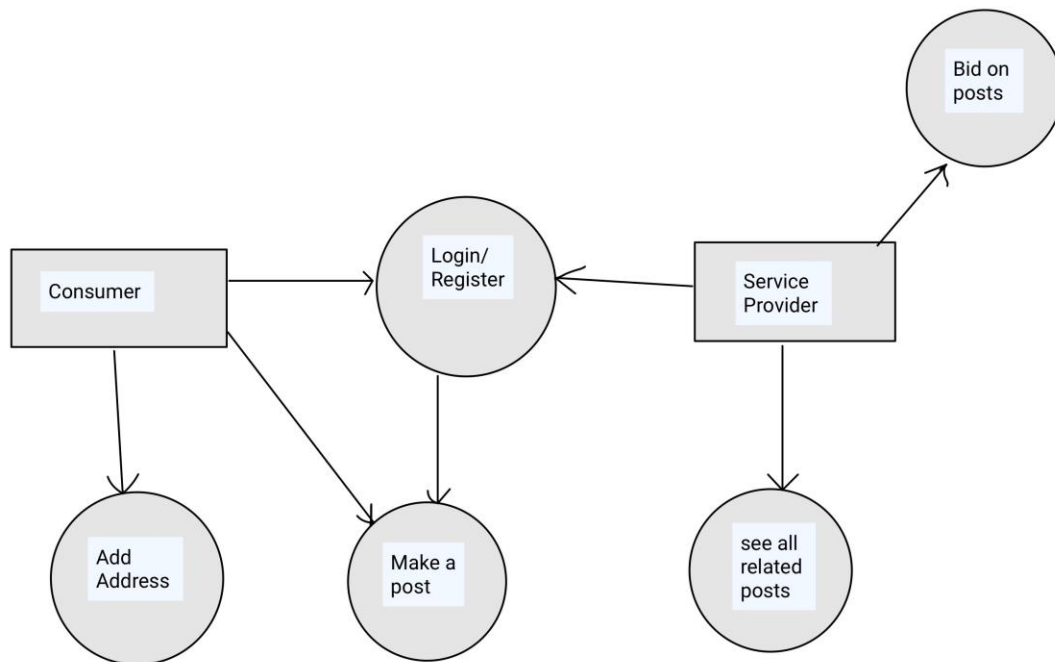
1-level DFD:

In 1-level DFD, the context diagram is decomposed into multiple bubbles/processes. In this level, we highlight the main functions of the system and breakdown the high-level process of 0-level DFD into subprocesses.



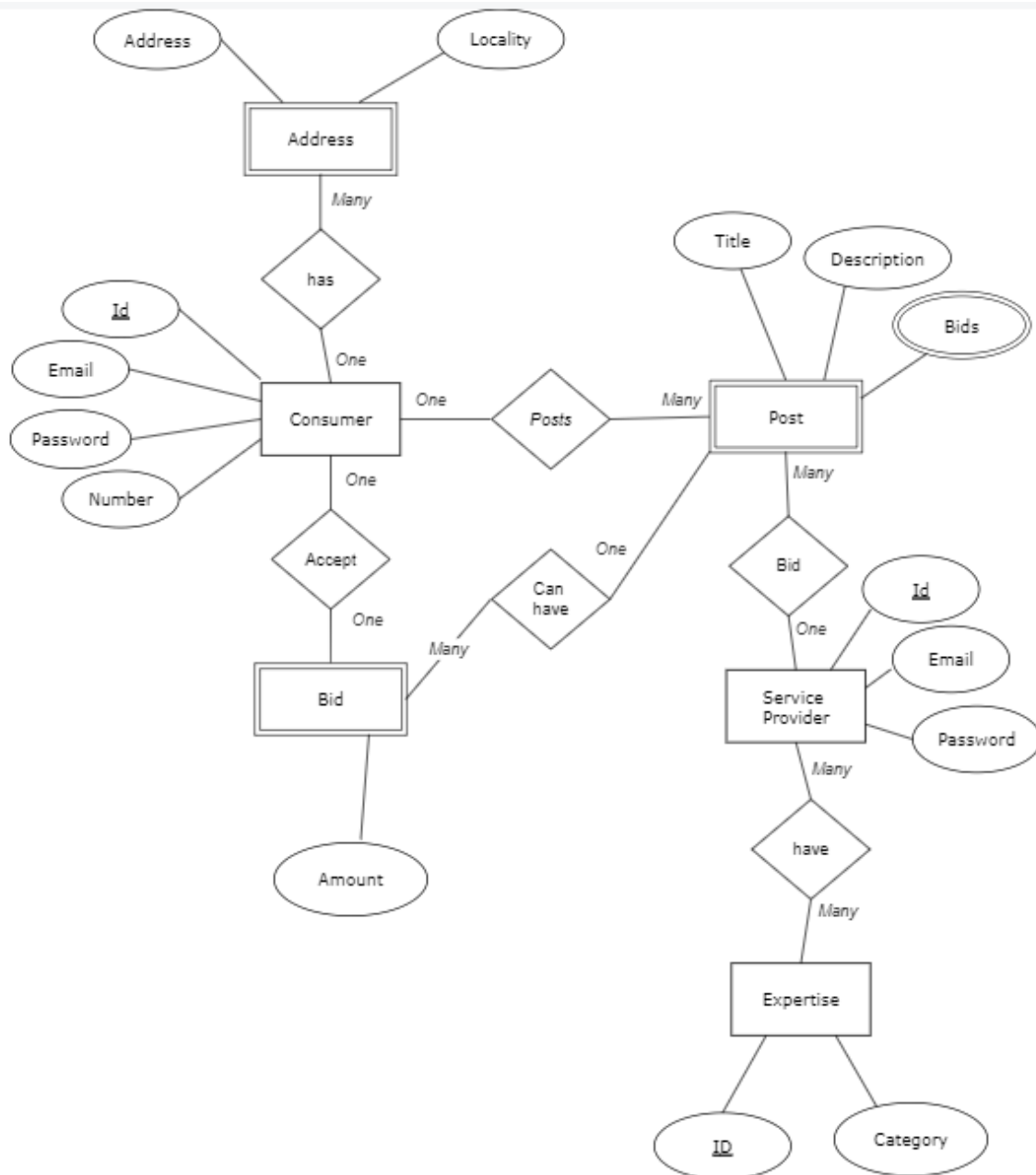
2-level DFD:

2-level DFD goes one step deeper into parts of 1-level DFD. It can be used to plan or record the specific/necessary detail about the system's functioning.



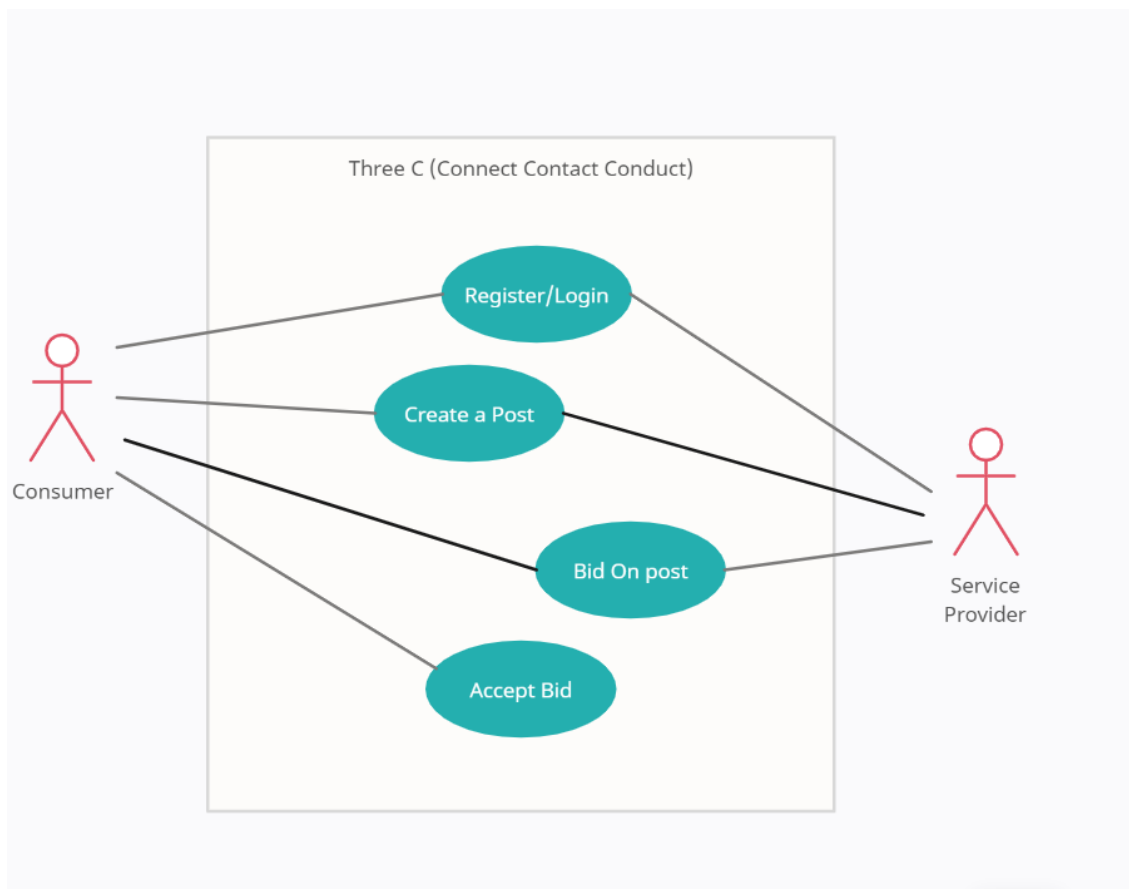
6.2 ERD (Entity Relationship Diagram)

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system.



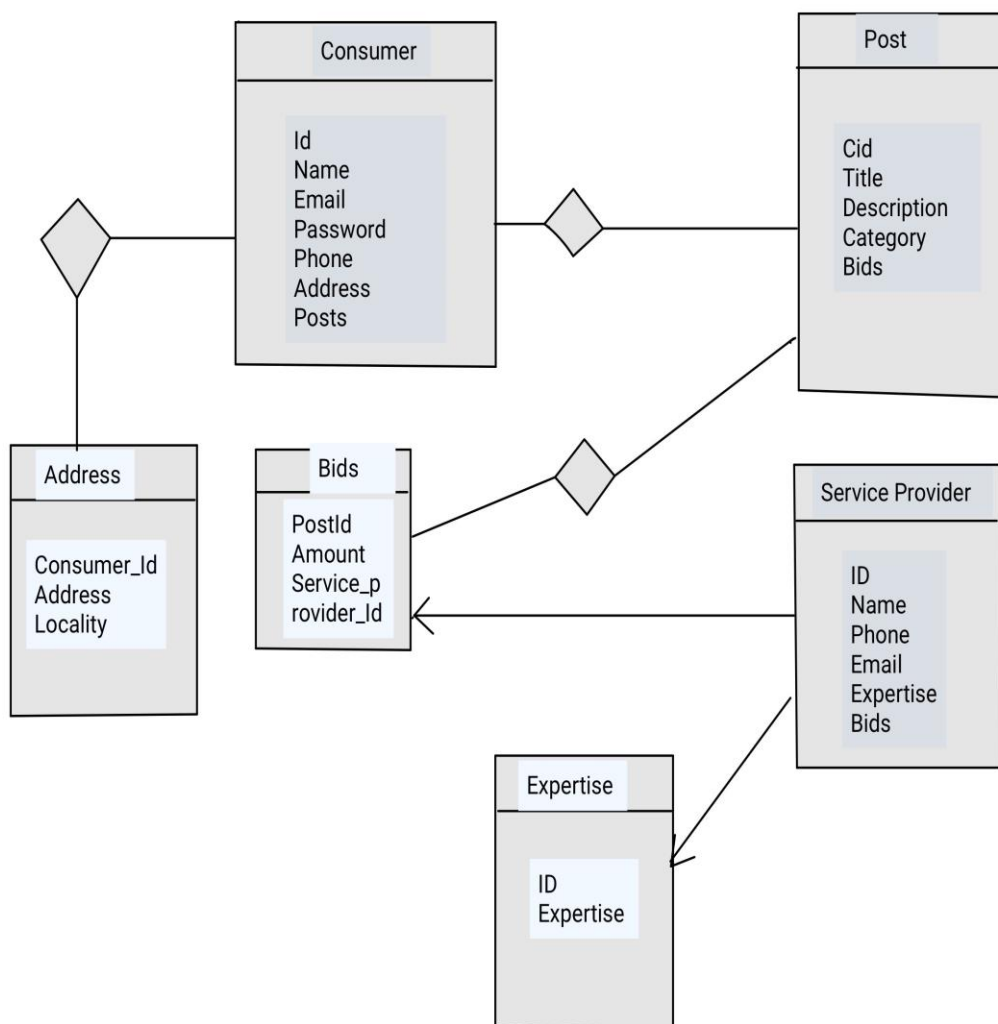
6.3 Use Case Diagram

In the Unified Modeling Language (UML), a use case diagram can summarize the details of your system's users (also known as actors) and their interactions with the system. To build one, you'll use a set of specialized symbols and connectors.



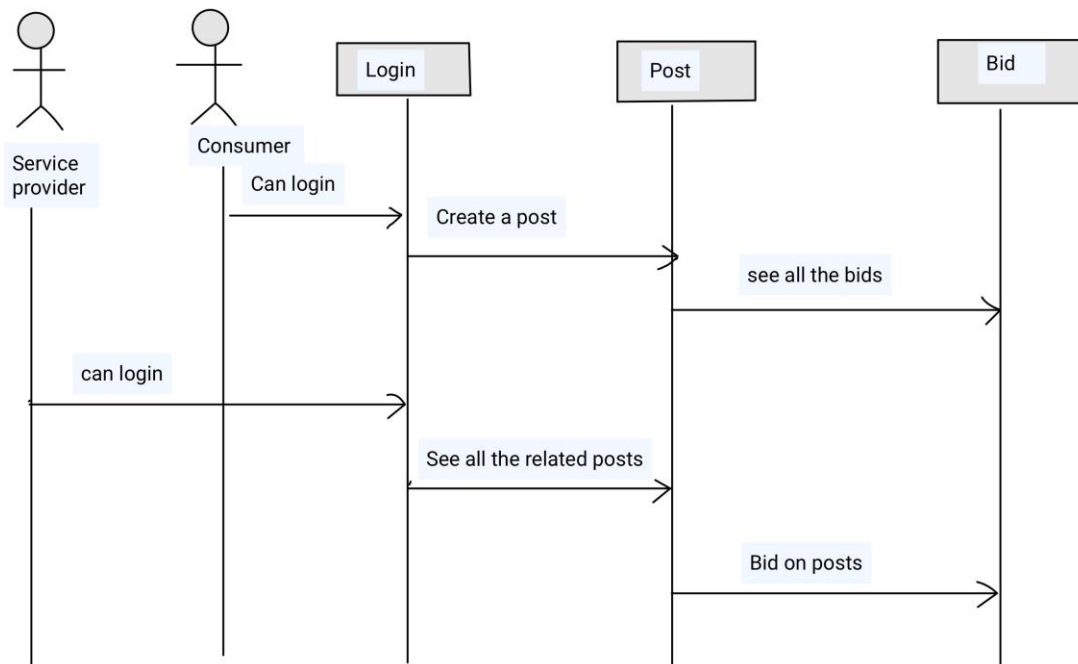
6.4 Class Diagram

Class diagram describes the attributes and operations of a class and also the constraints imposed on the system. The class diagrams are widely used in the modeling of objectoriented systems because they are the only UML diagrams, which can be mapped directly with object-oriented languages.



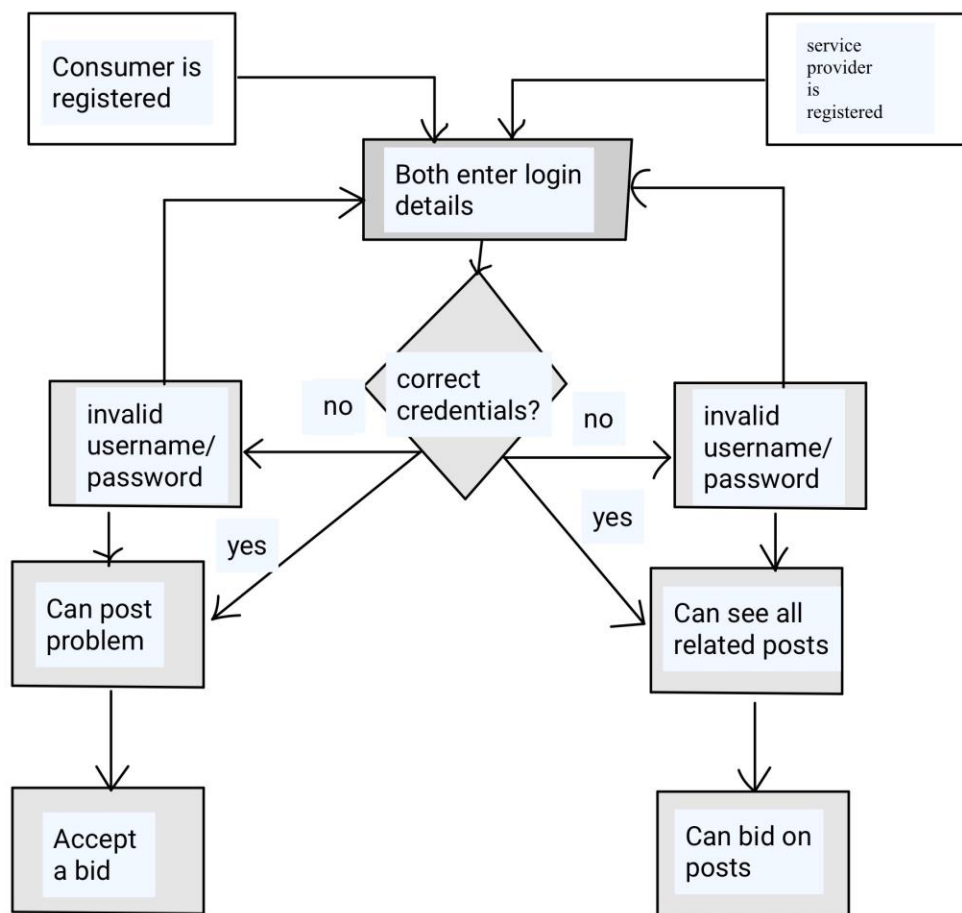
6.5 Sequence Diagram

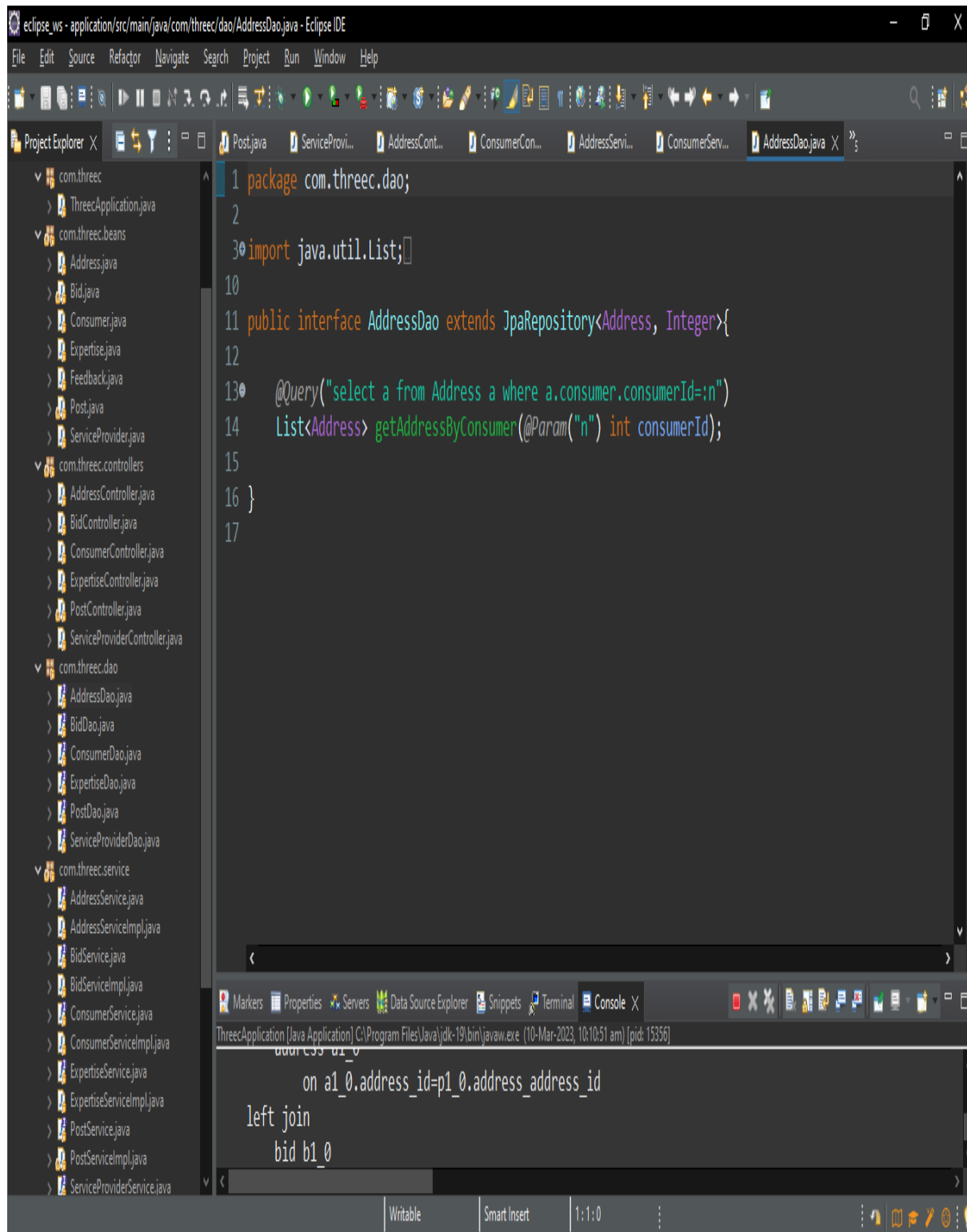
A sequence diagram is a type of interaction diagram because it describes how—and in what order—a group of objects works together. These diagrams are used by software developers and business professionals to understand requirements for a new system or to document an existing process.

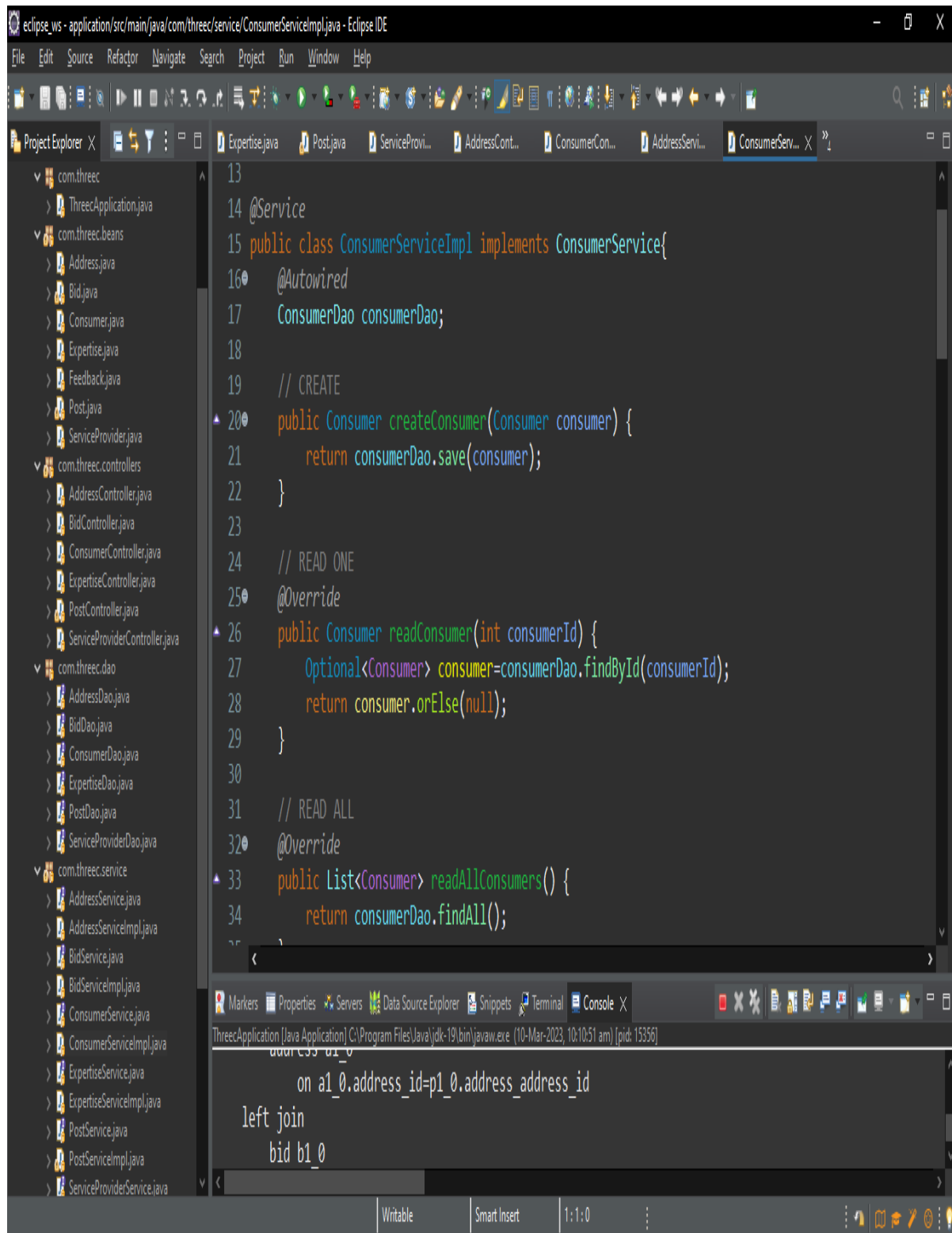


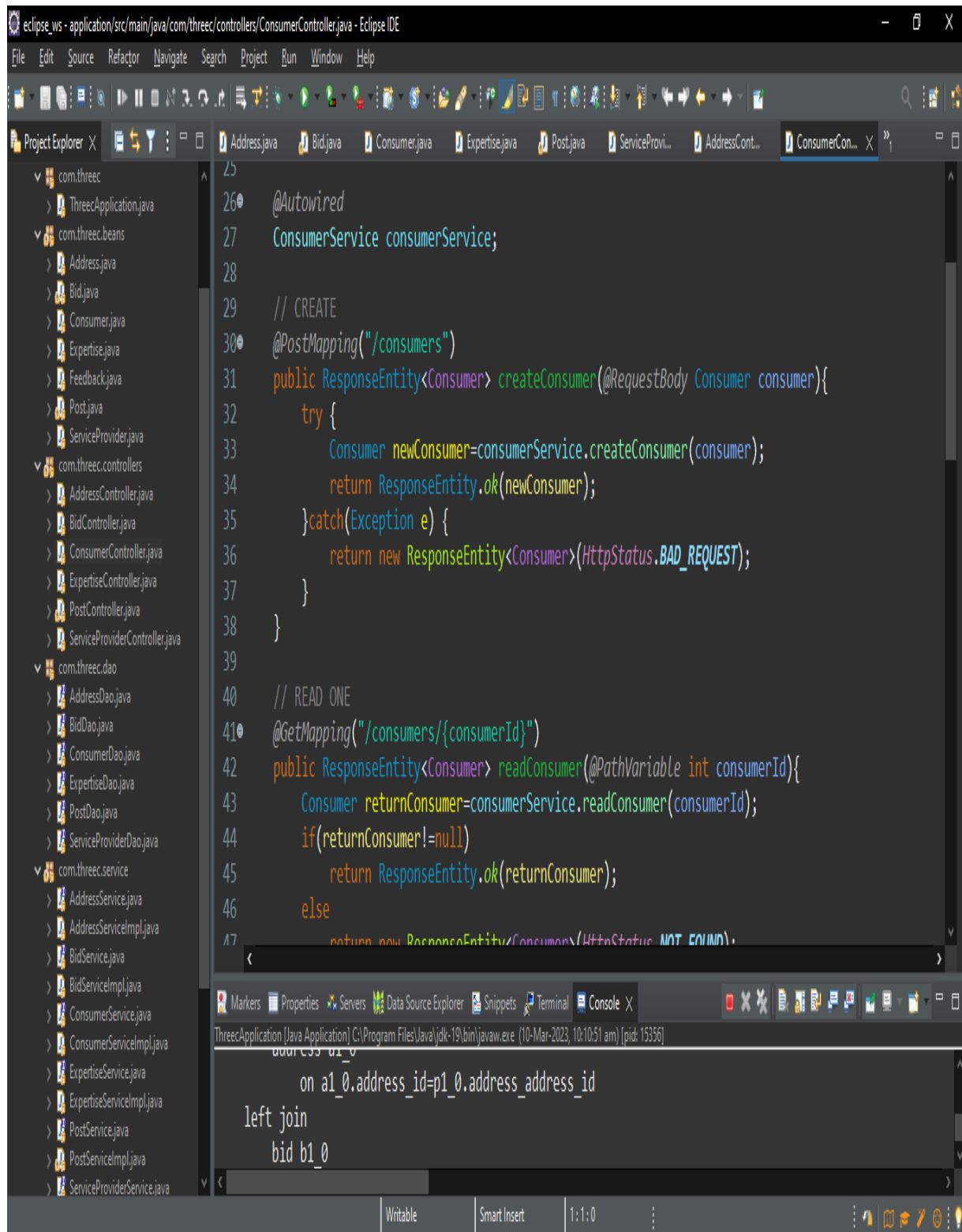
6.6 Activity Diagram

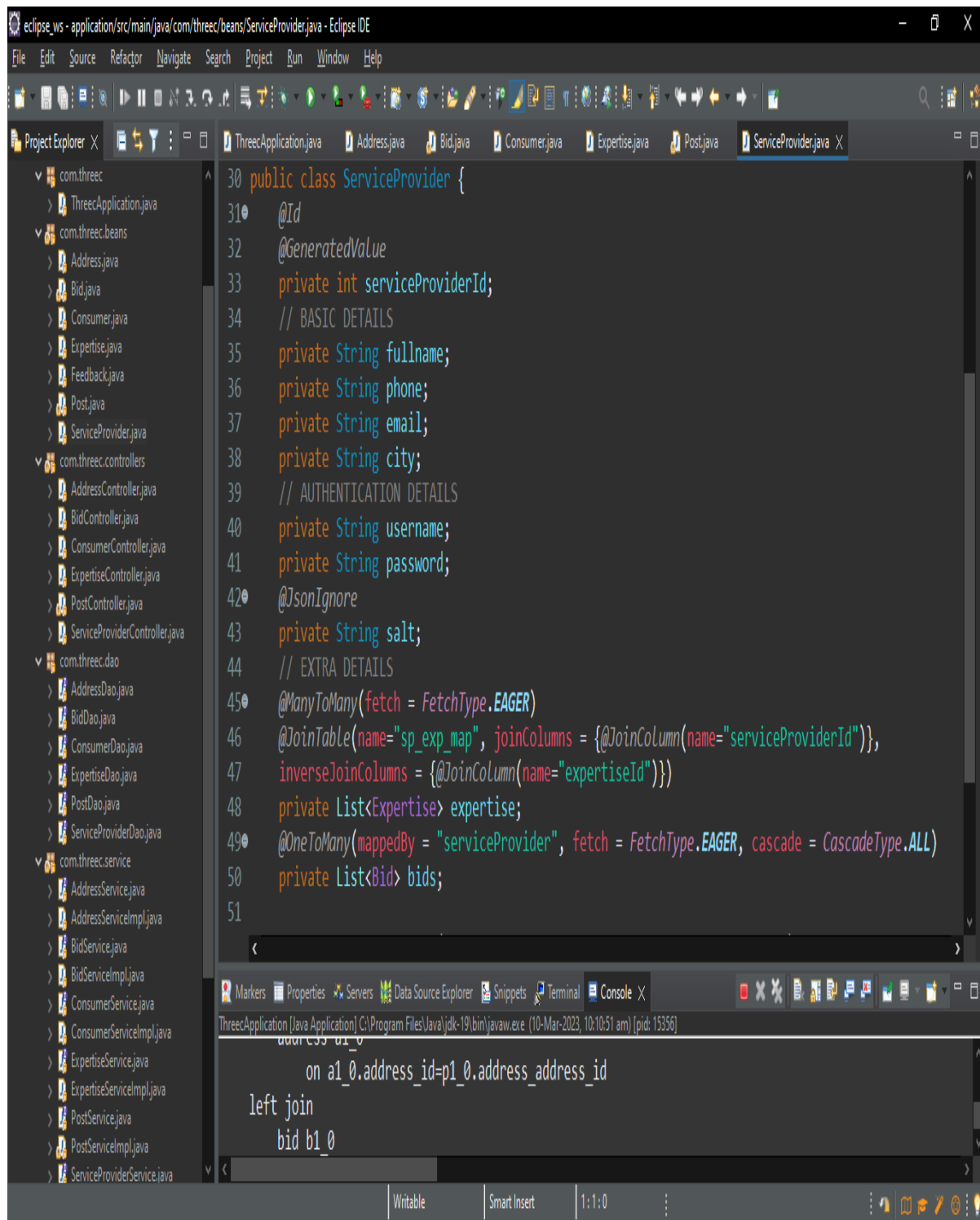
Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system.

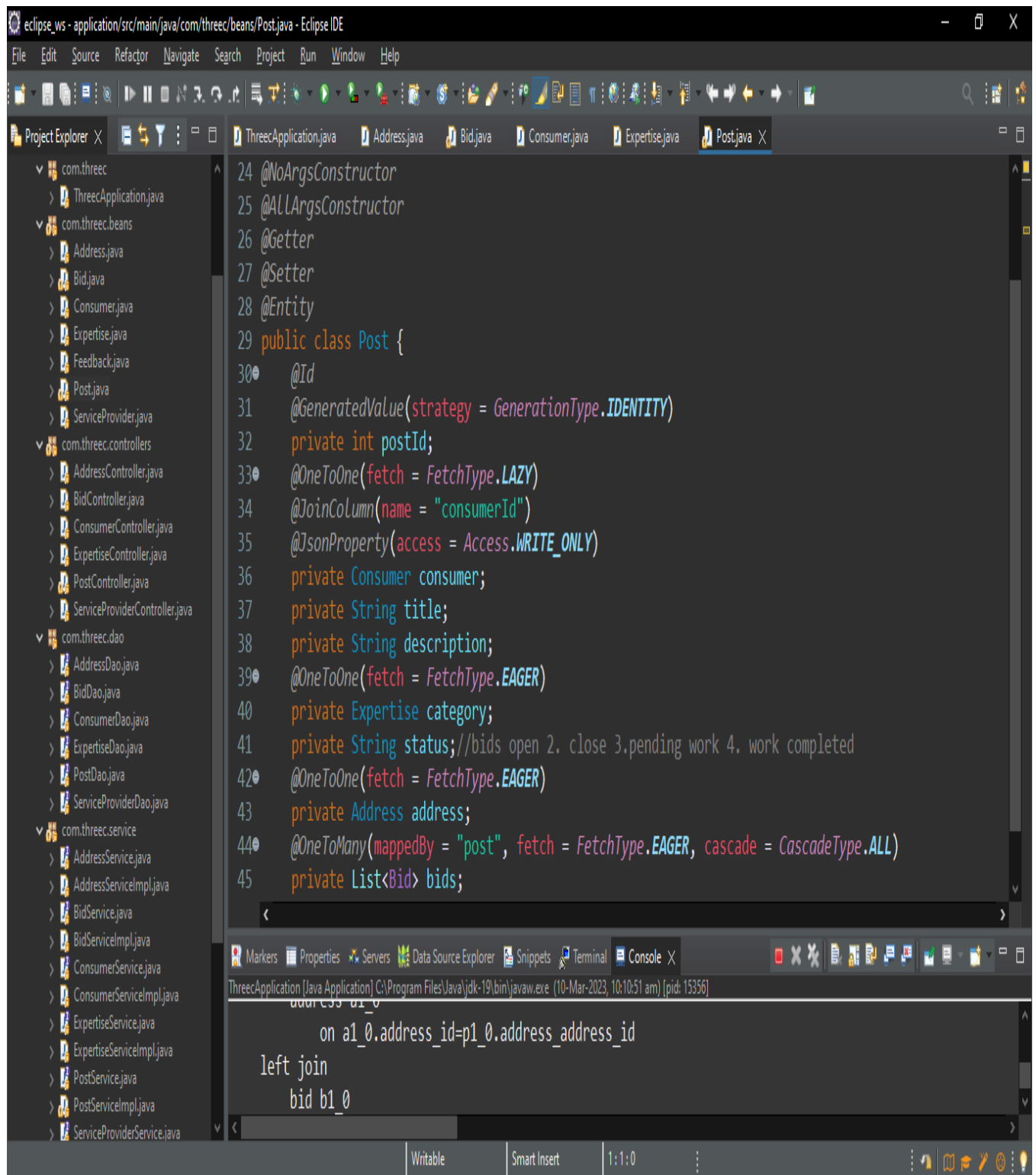


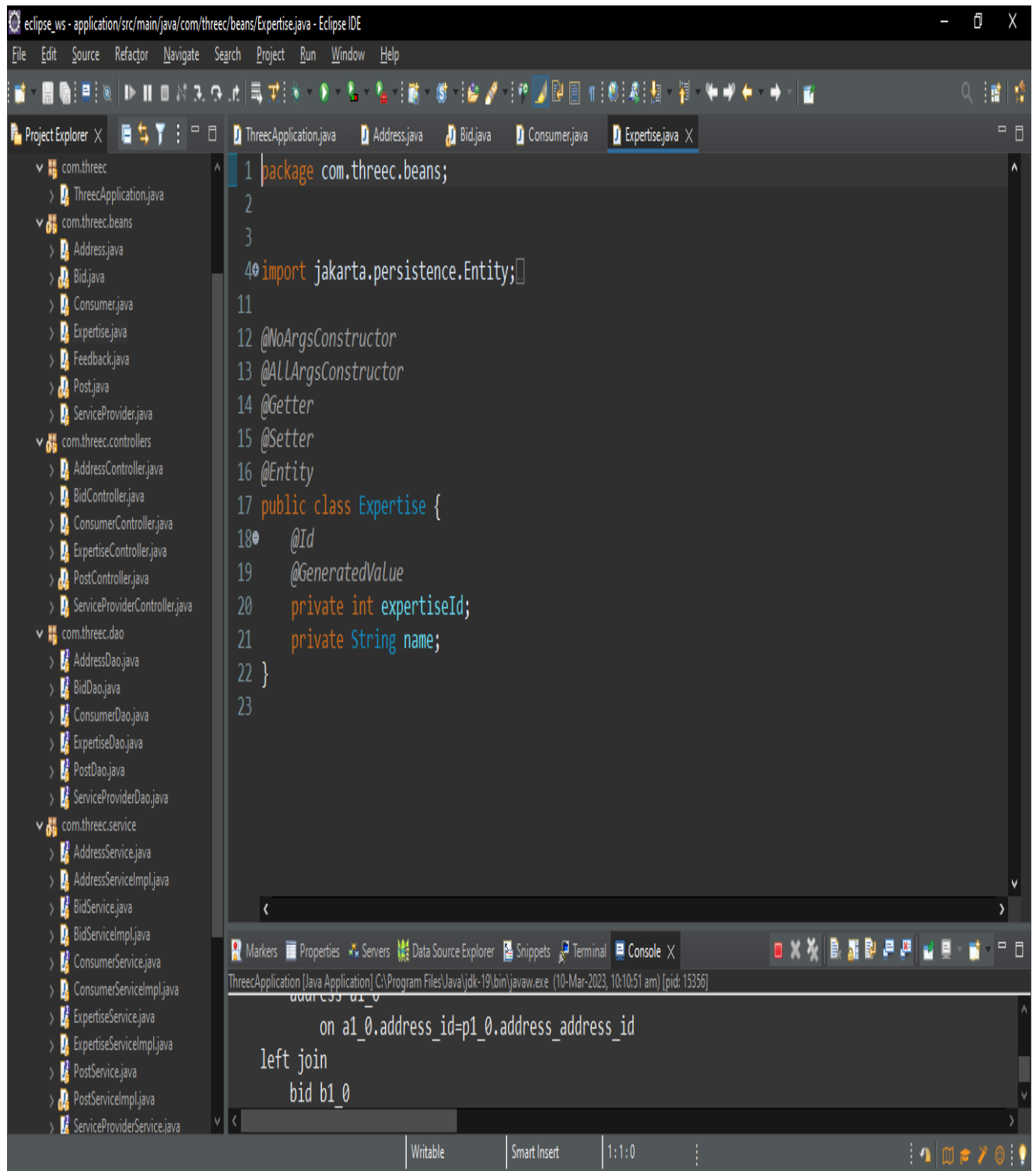


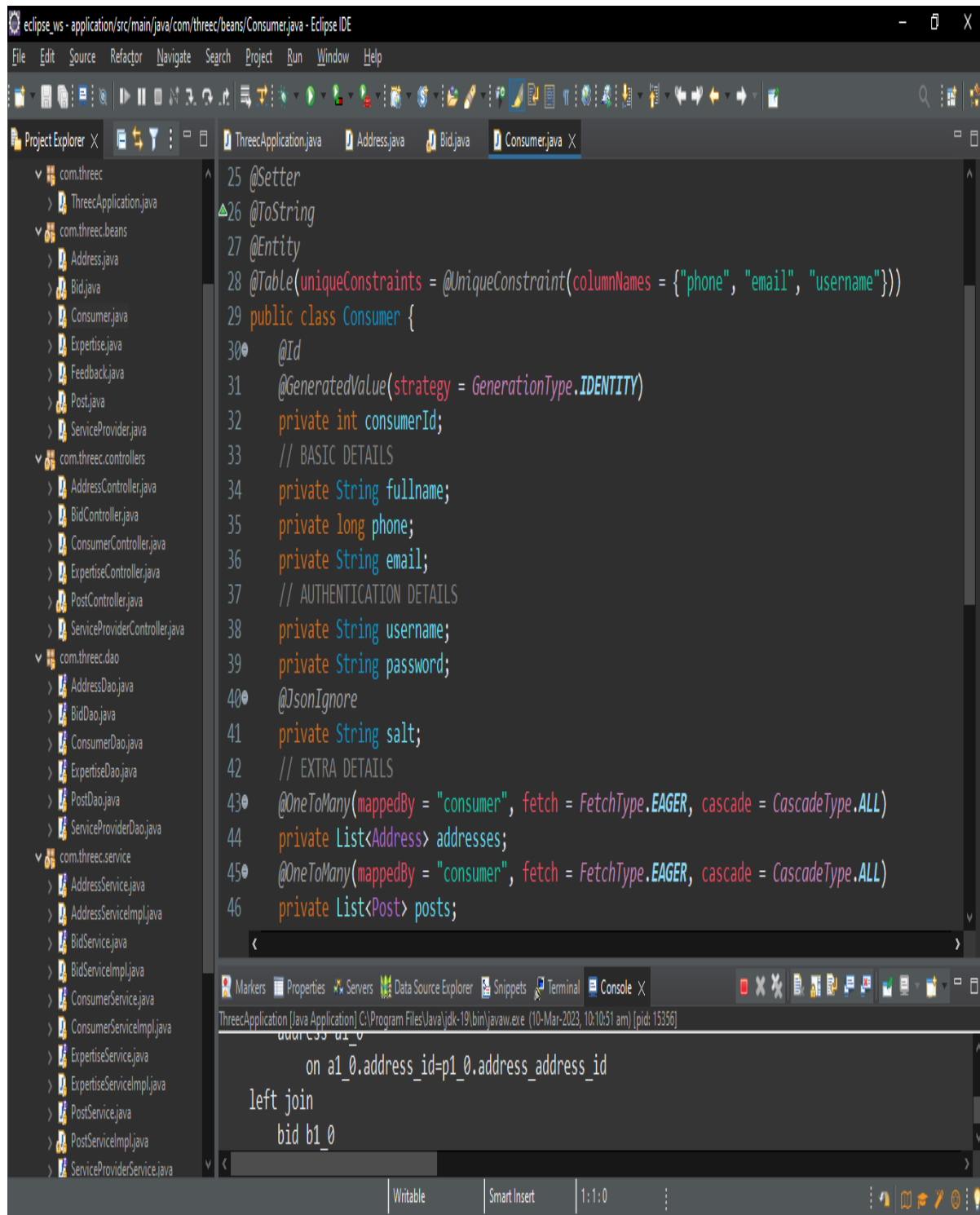


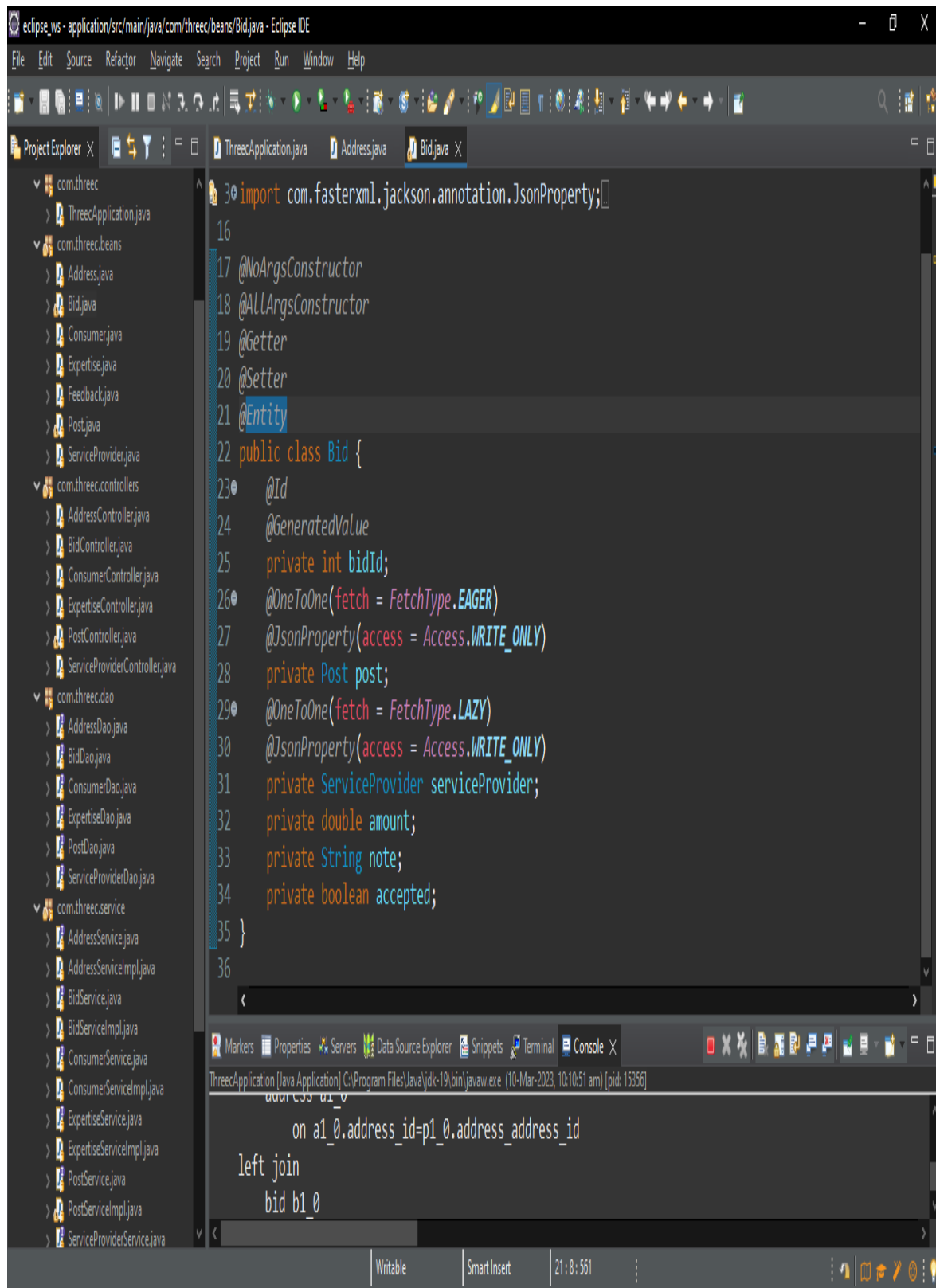


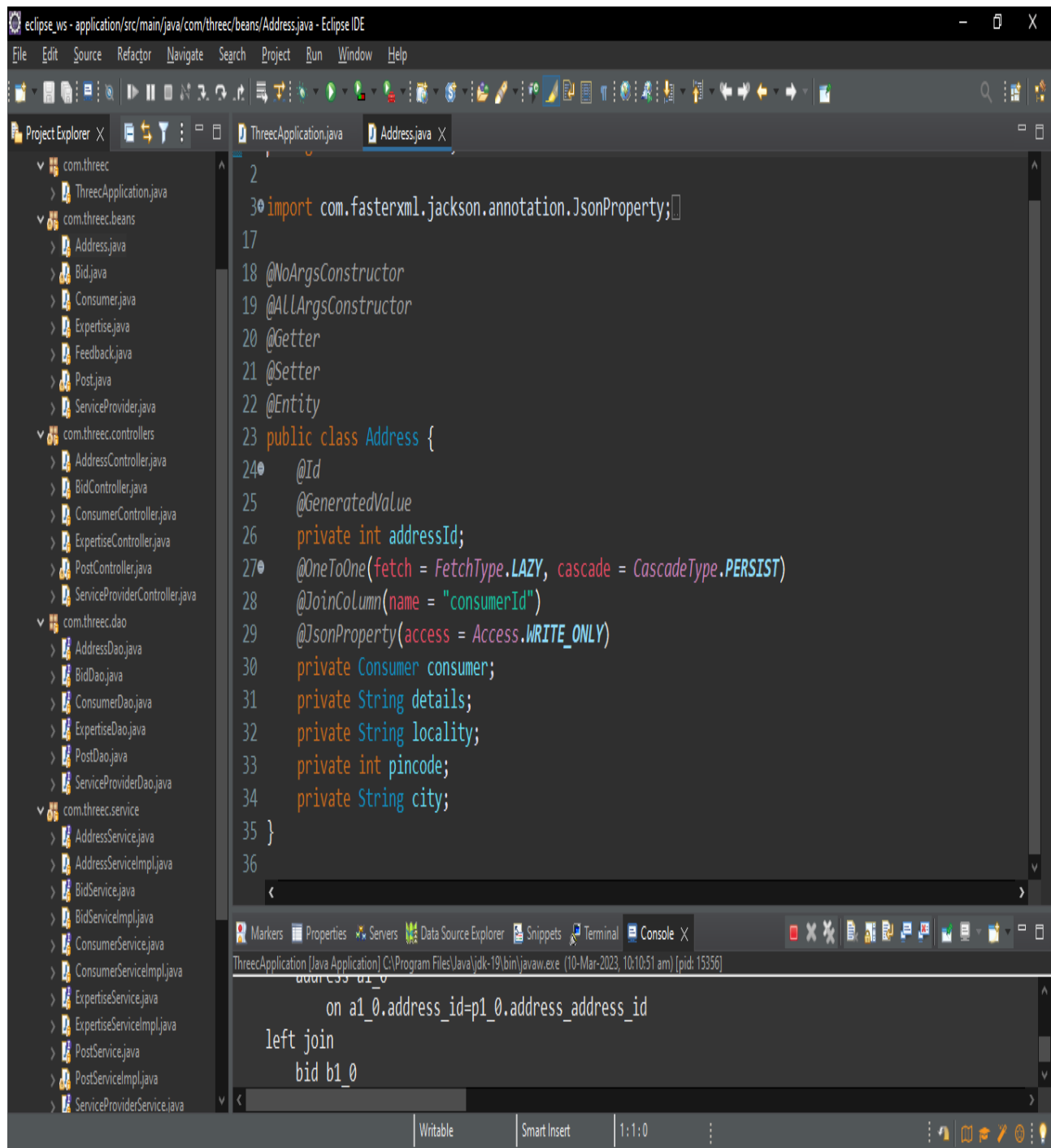


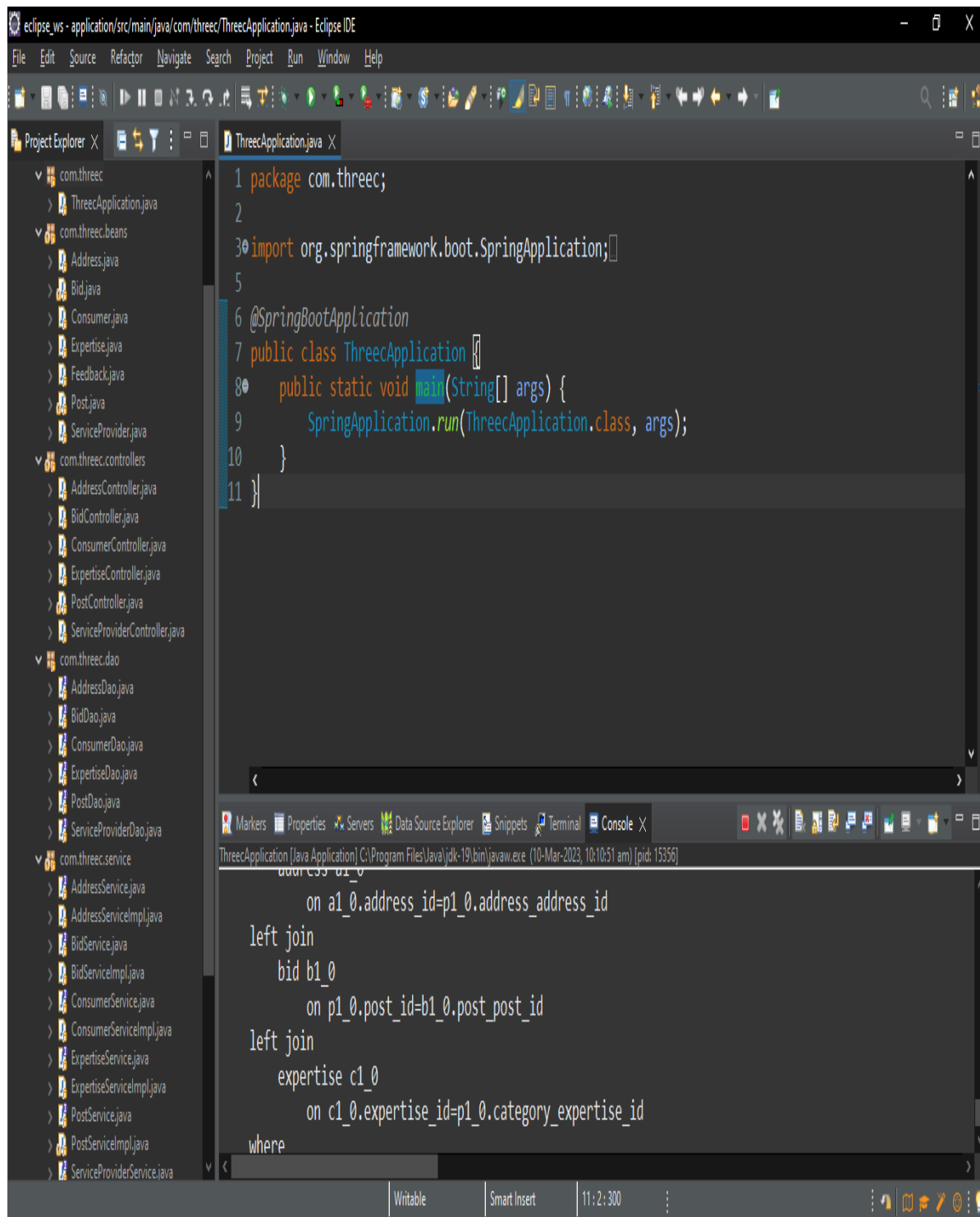


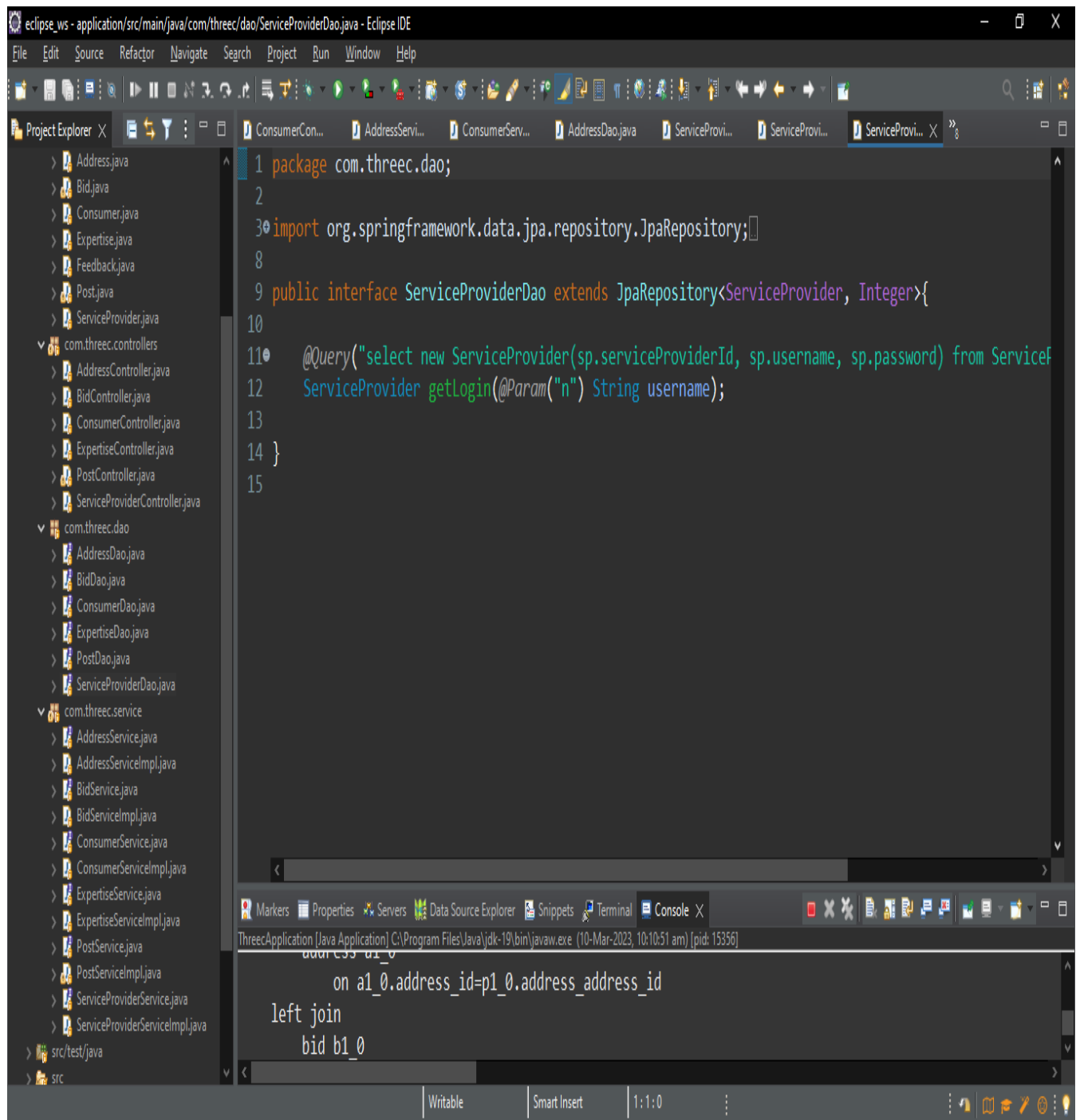


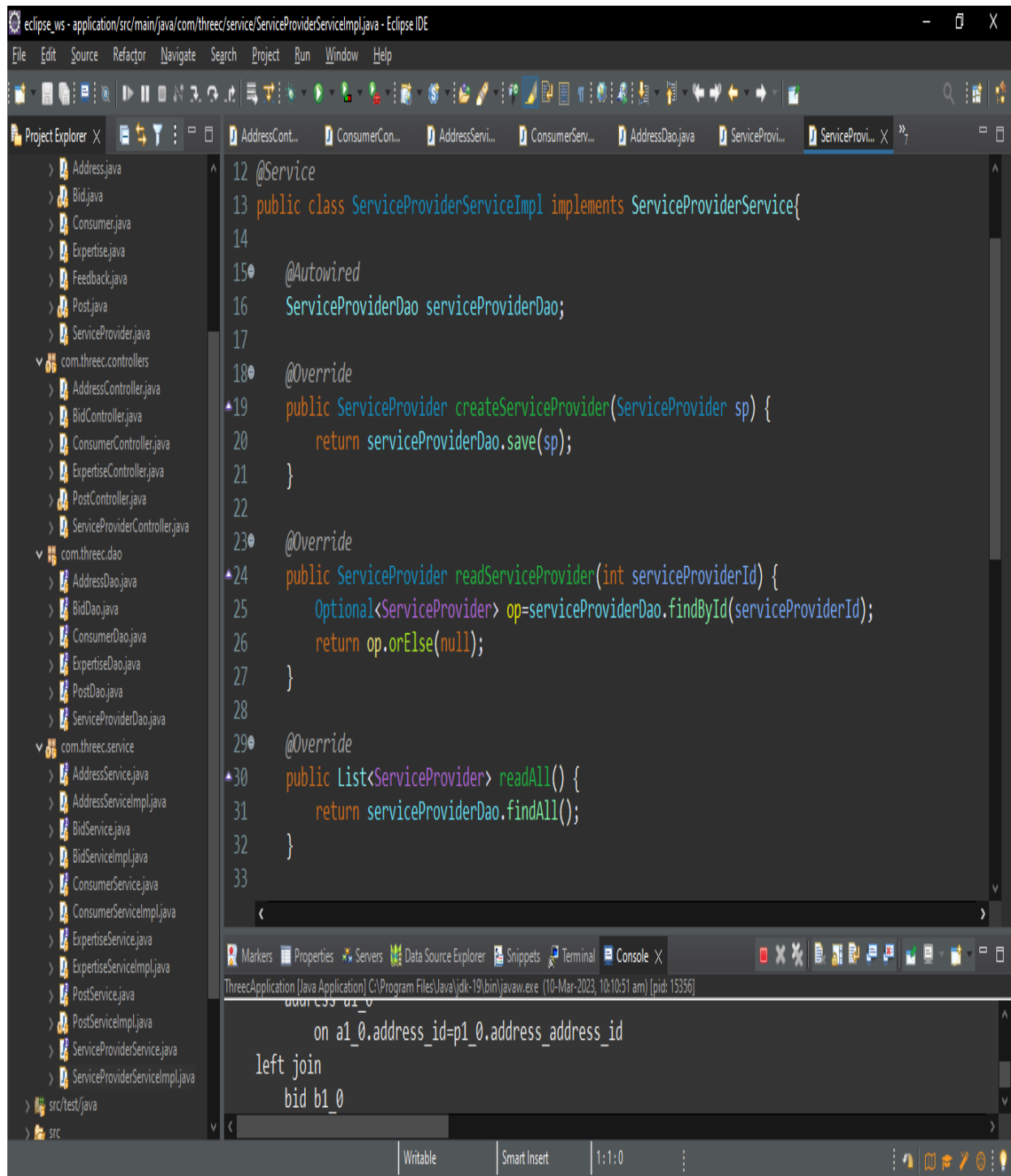


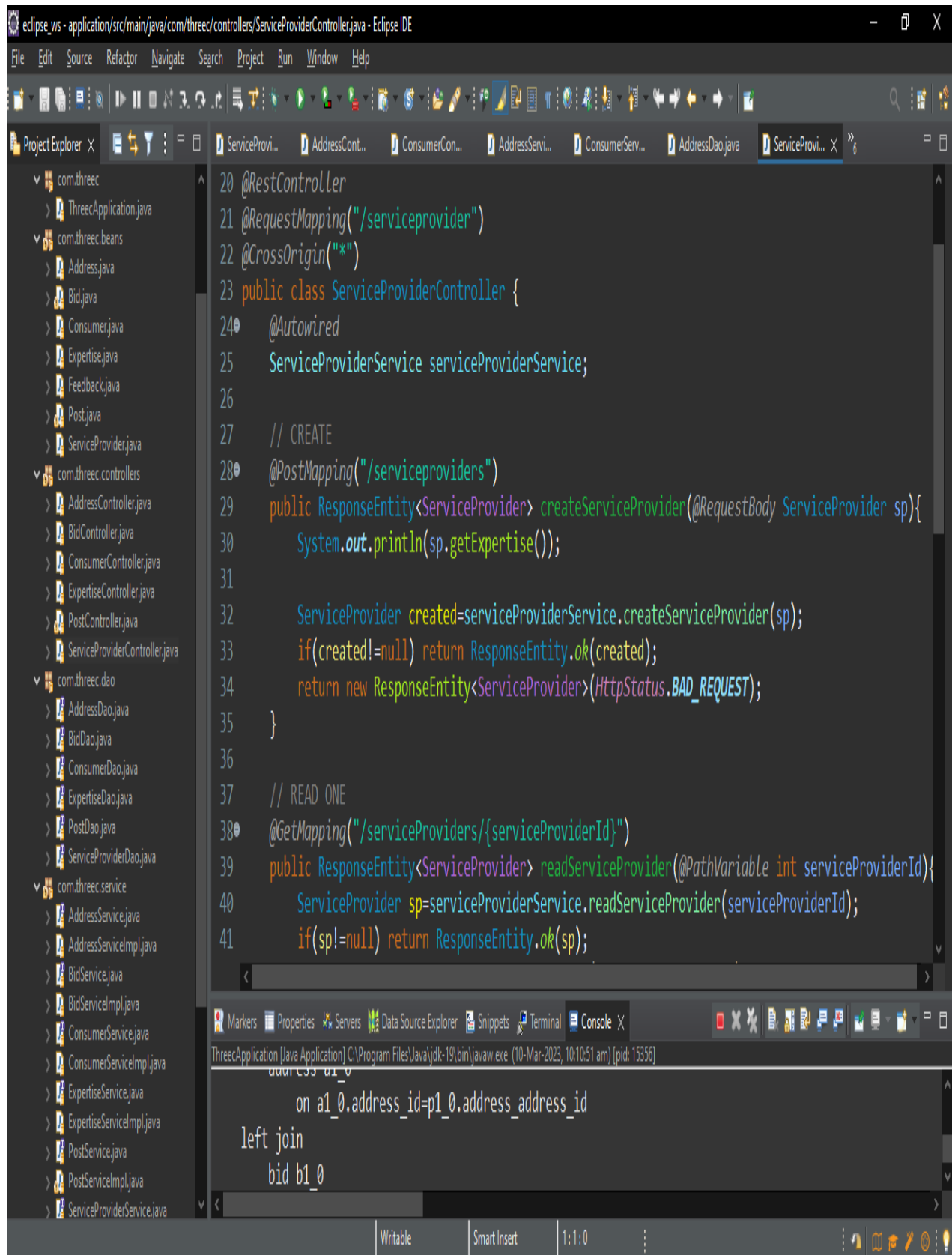


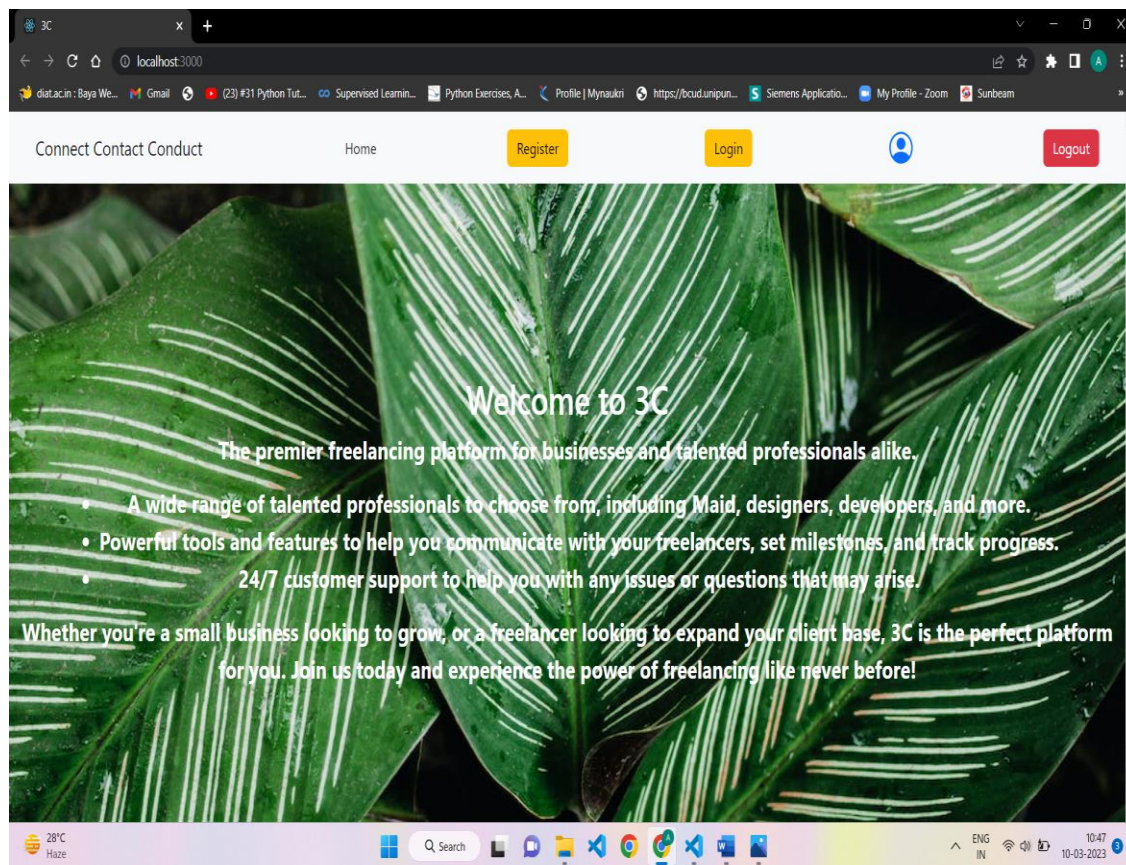




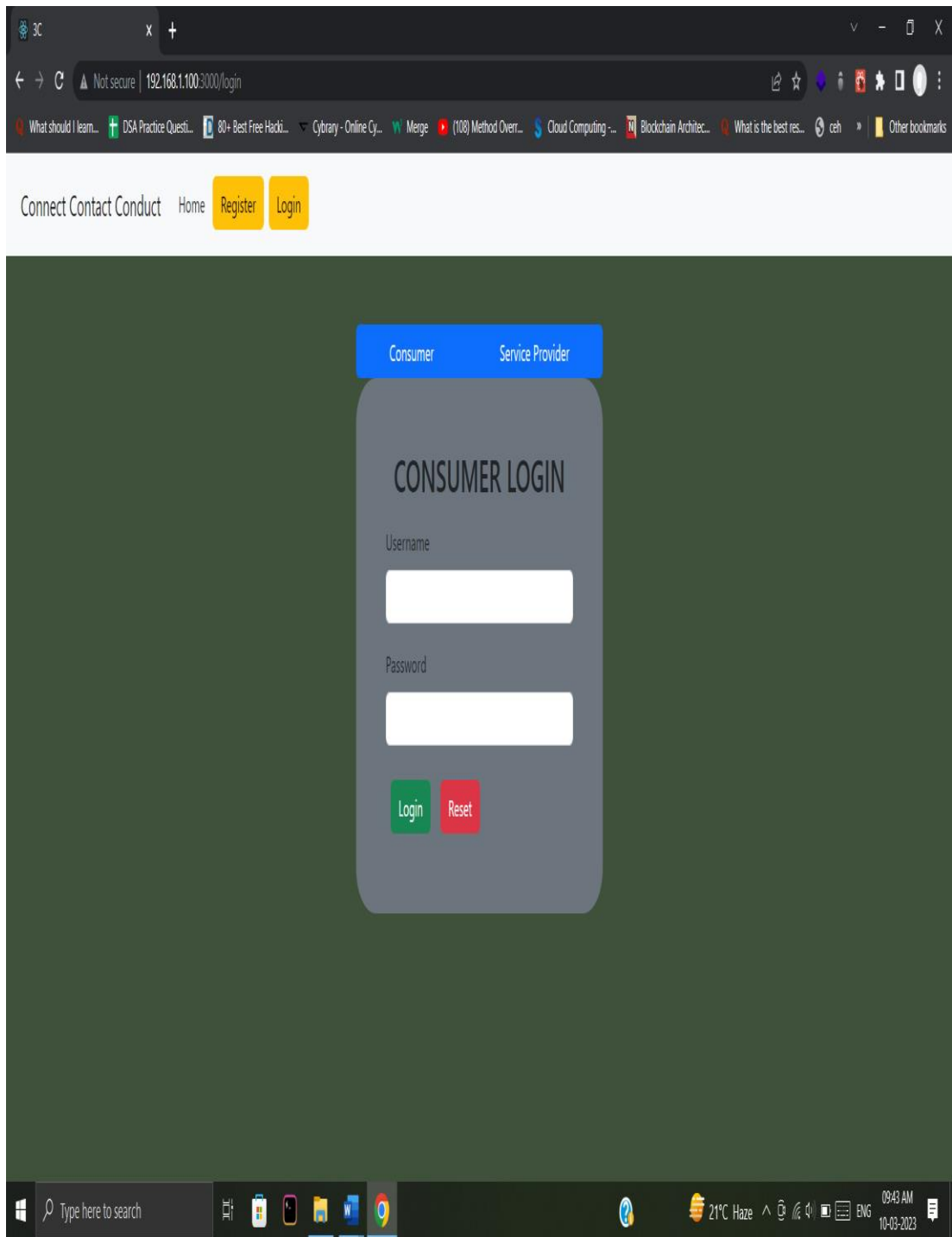




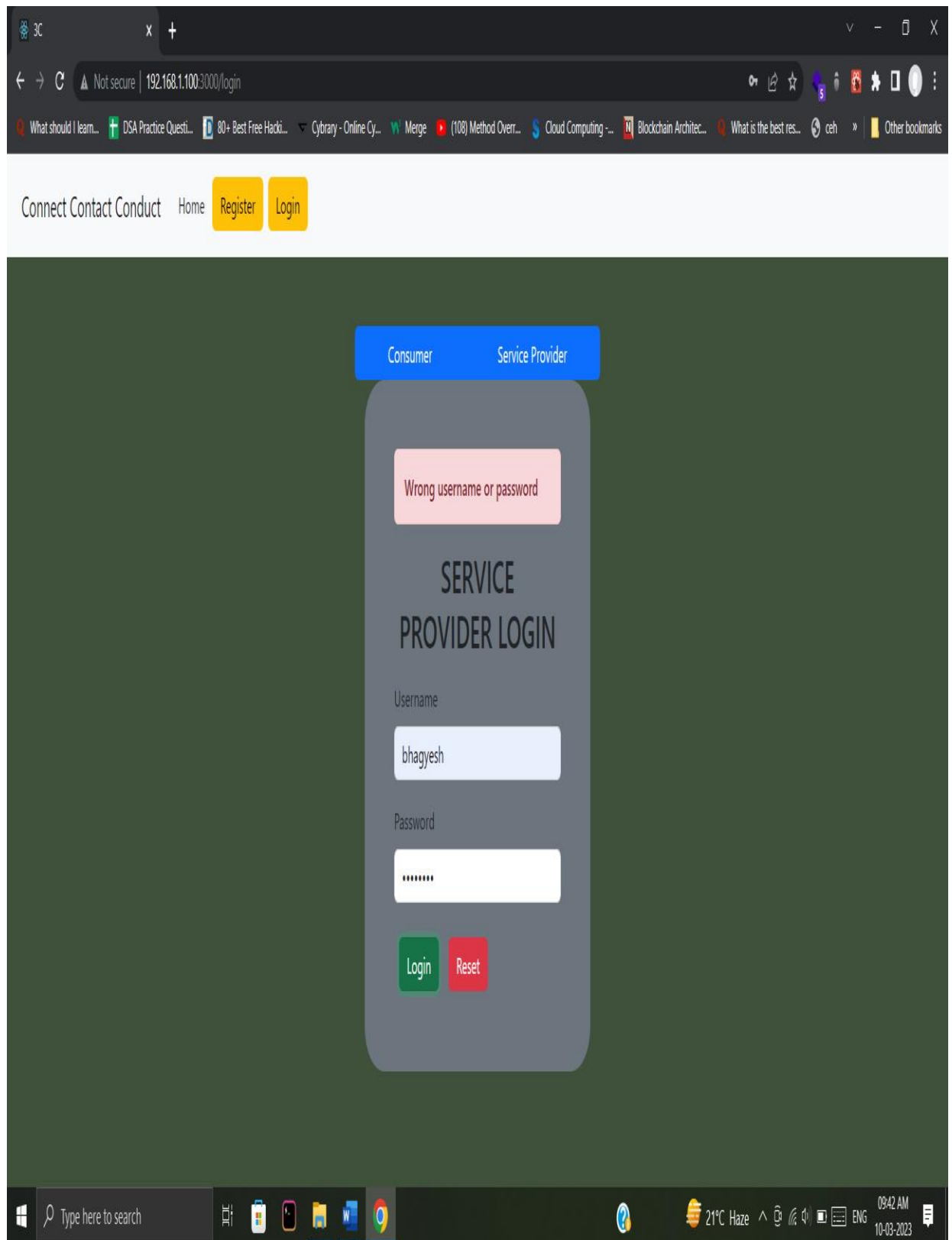




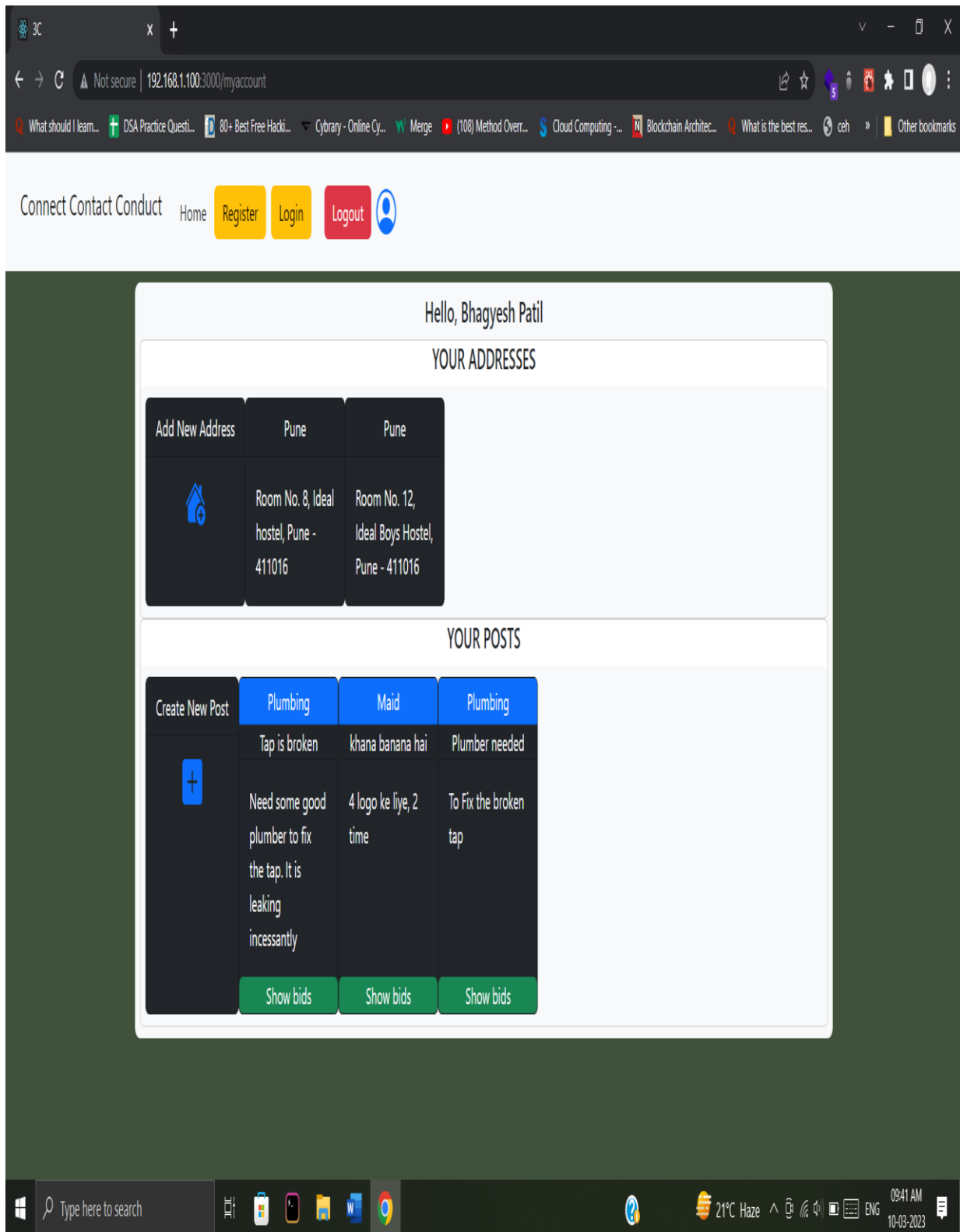
Screenshot: Home Page



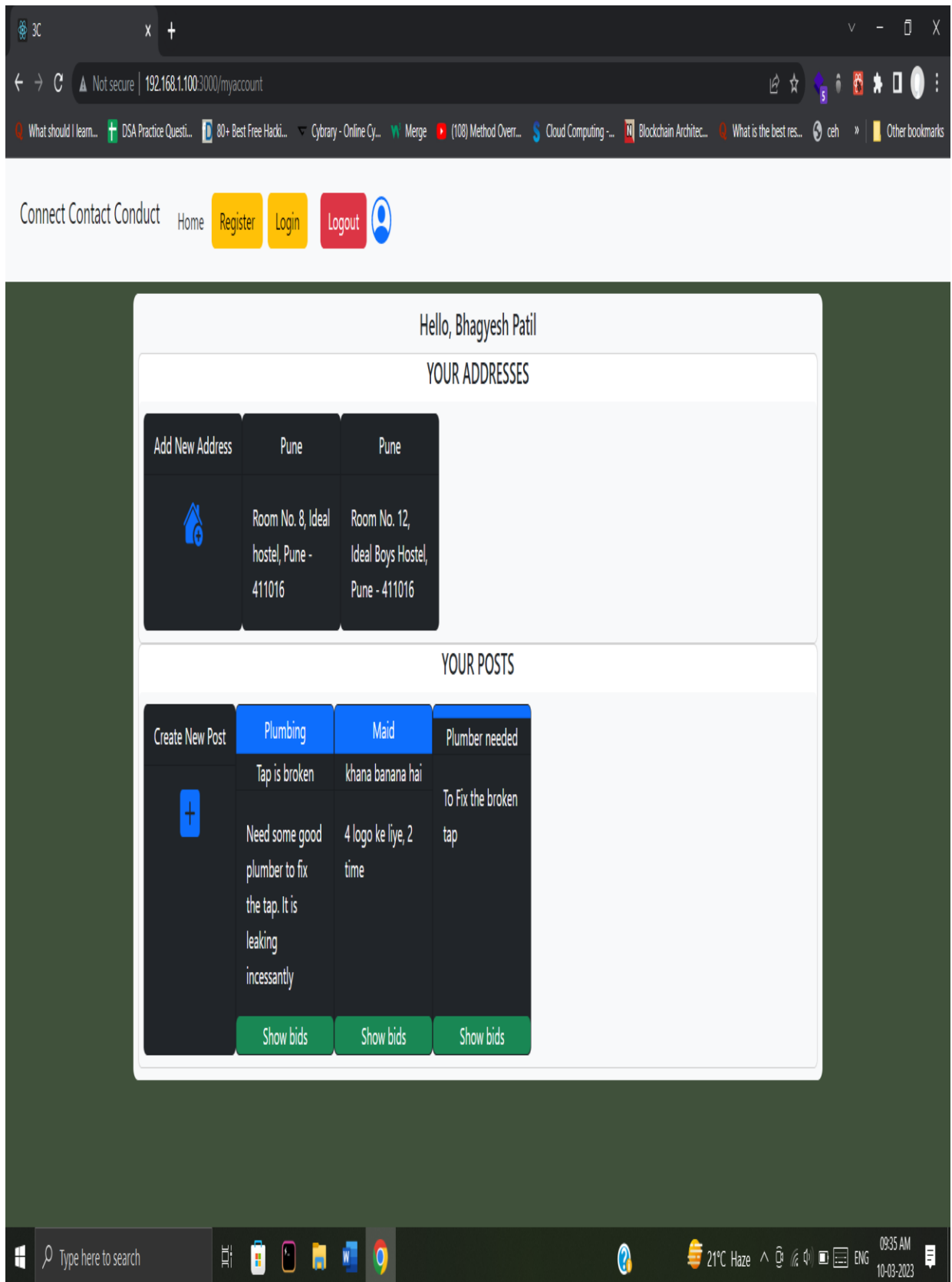
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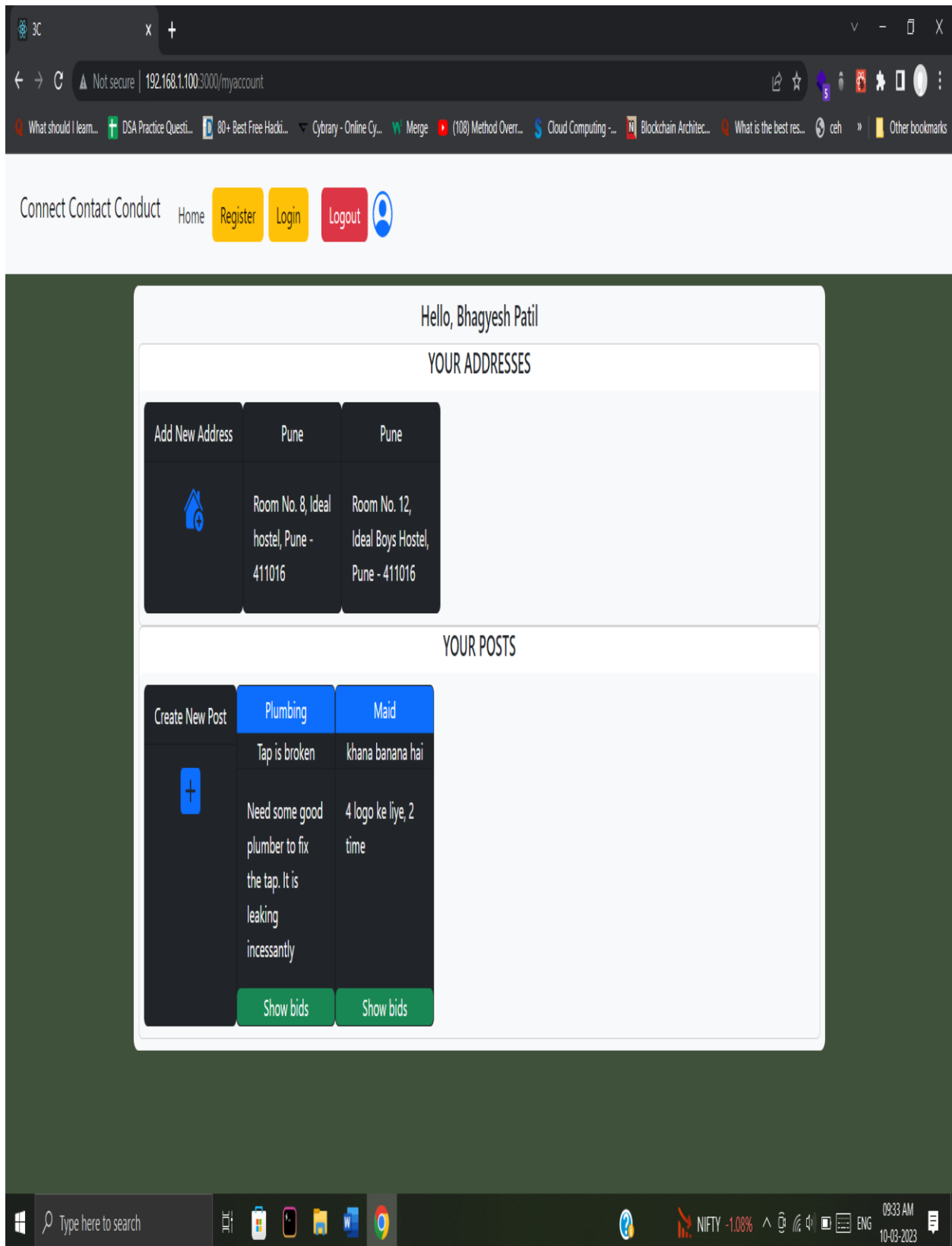
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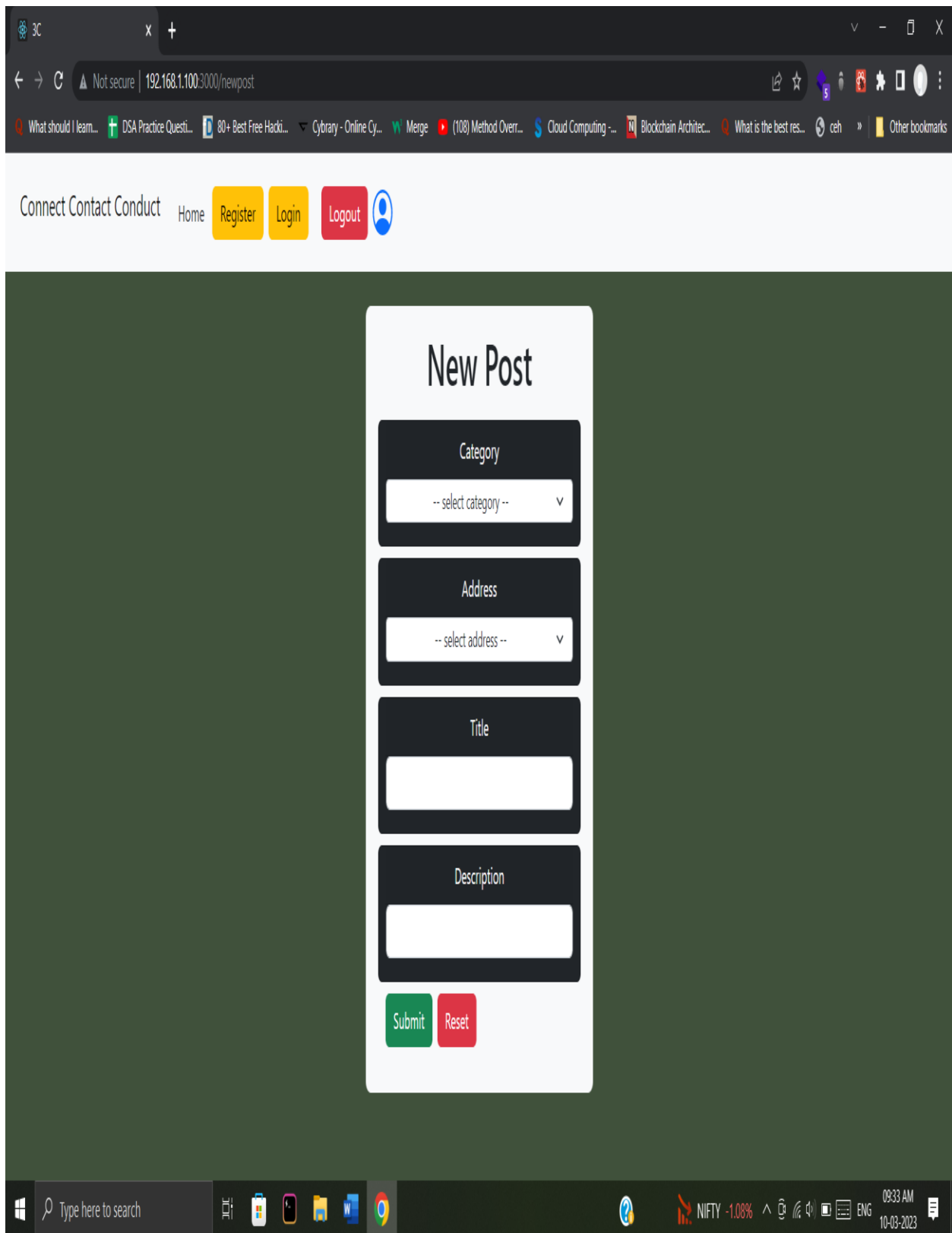
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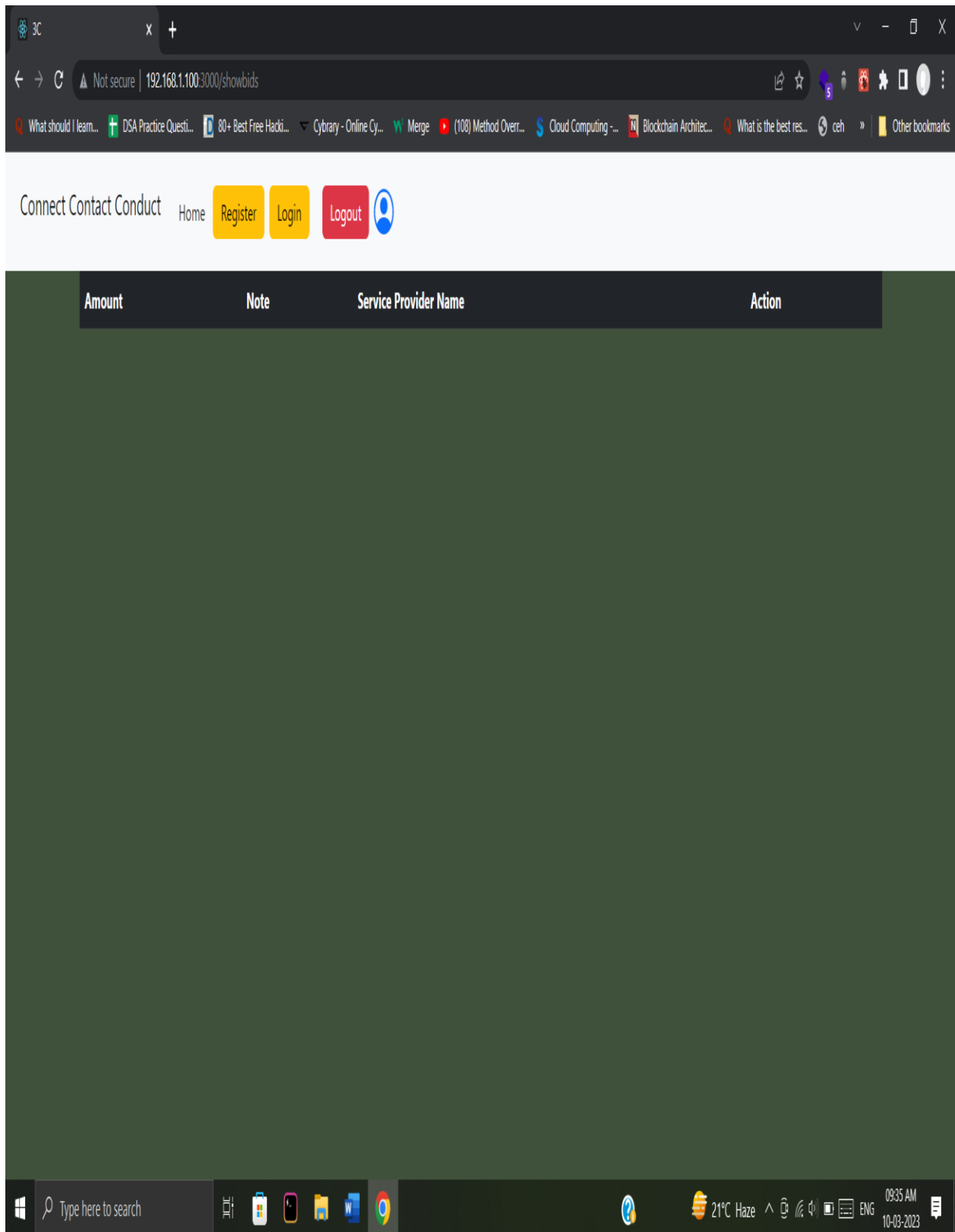
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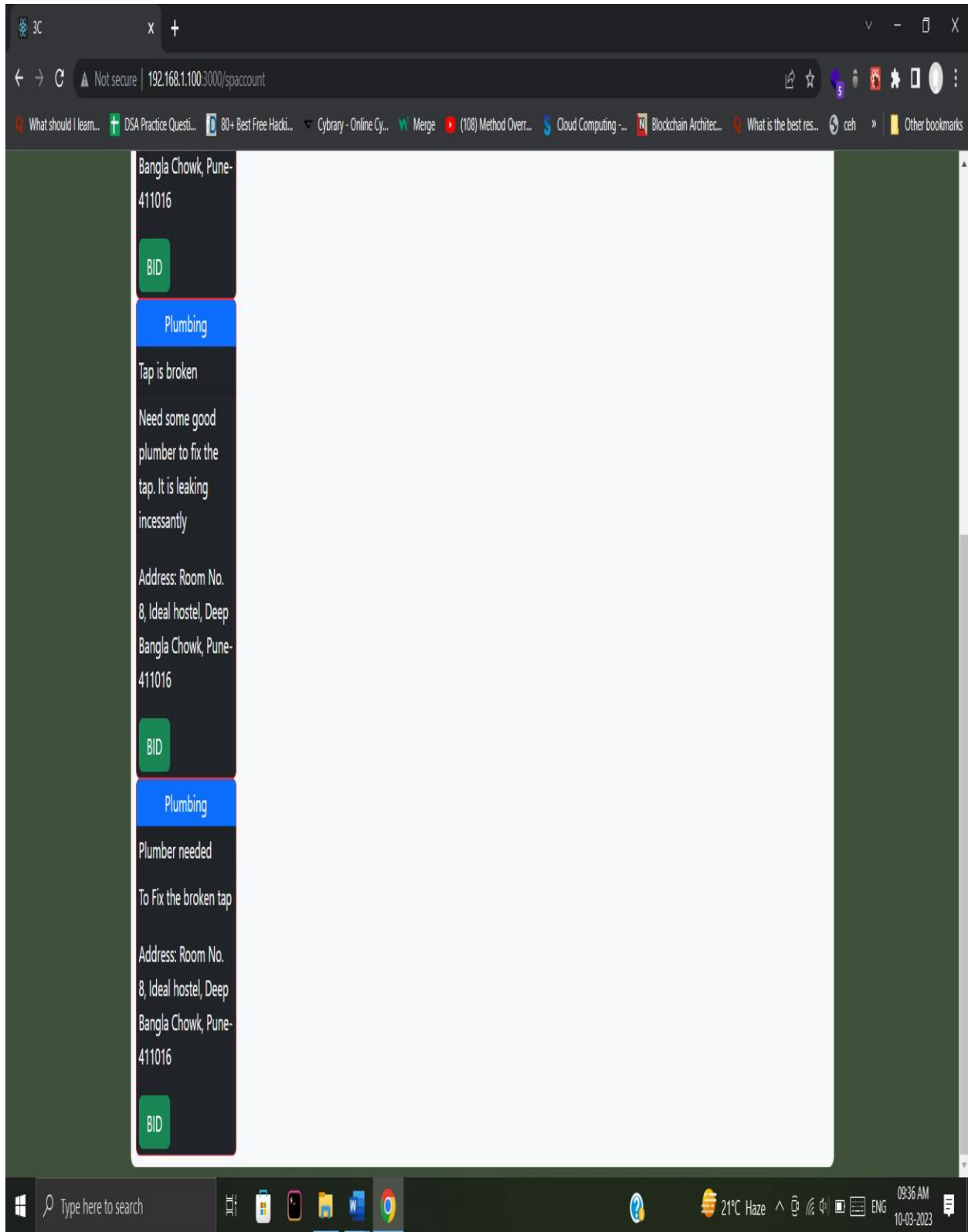
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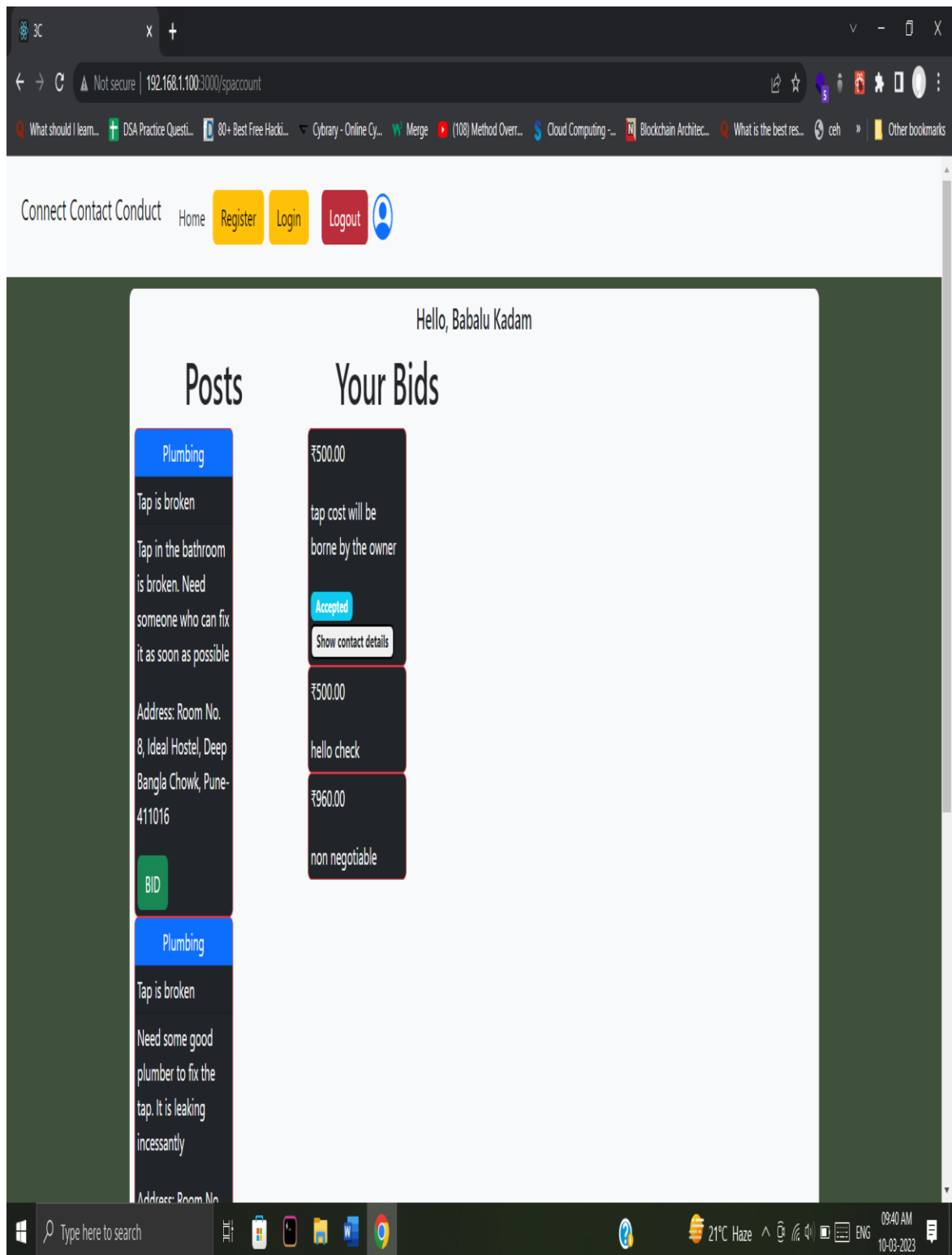
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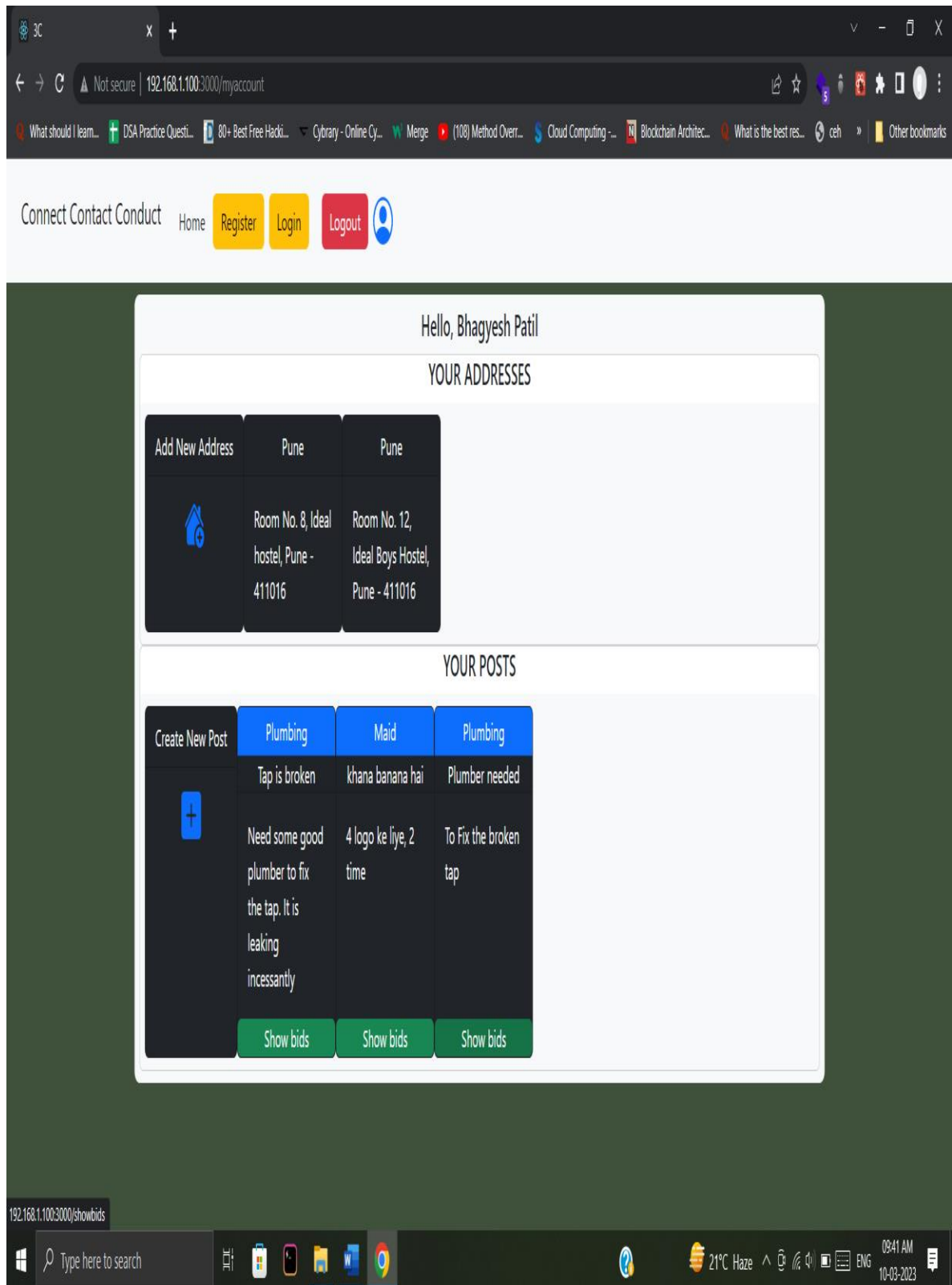
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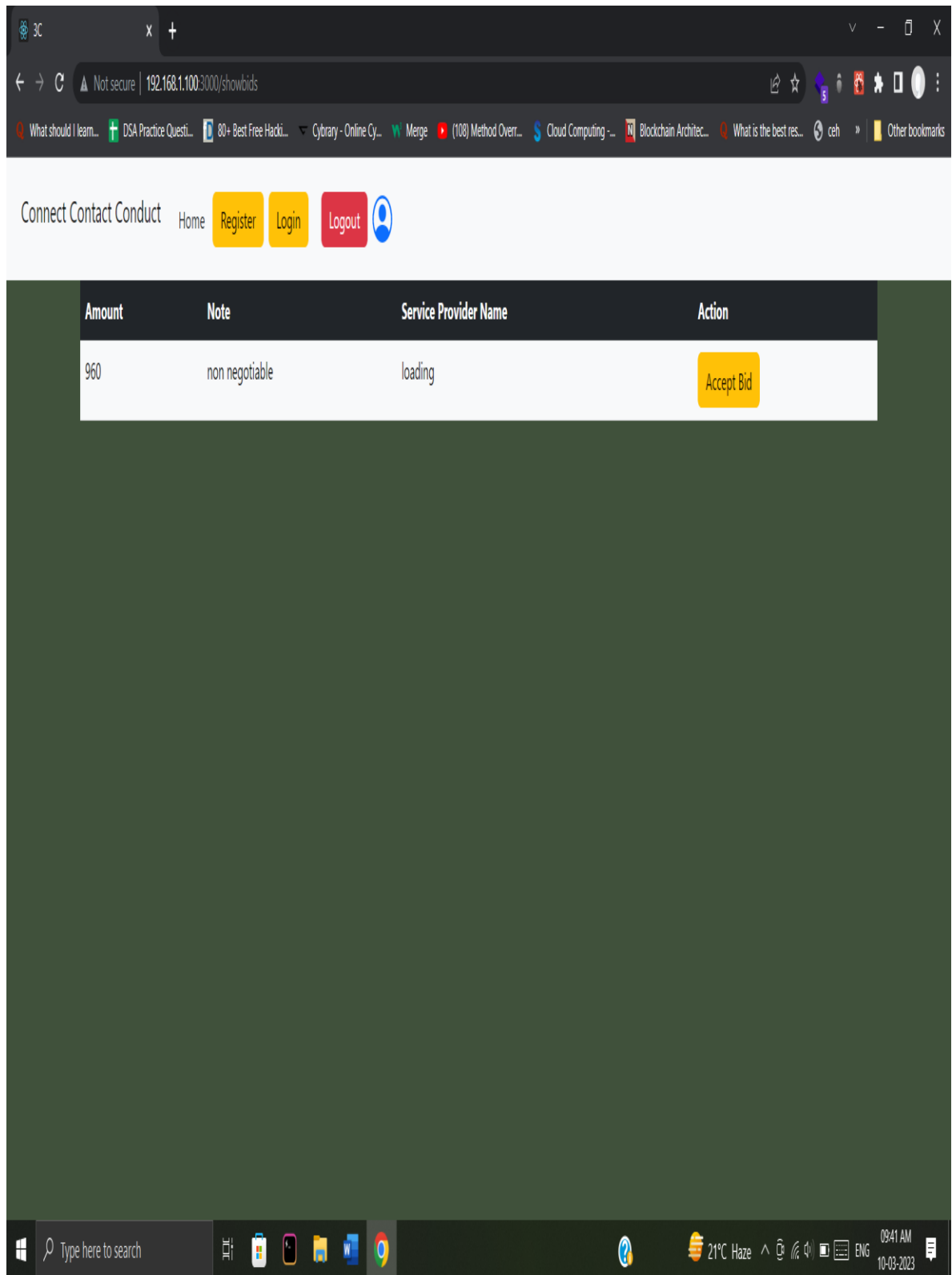
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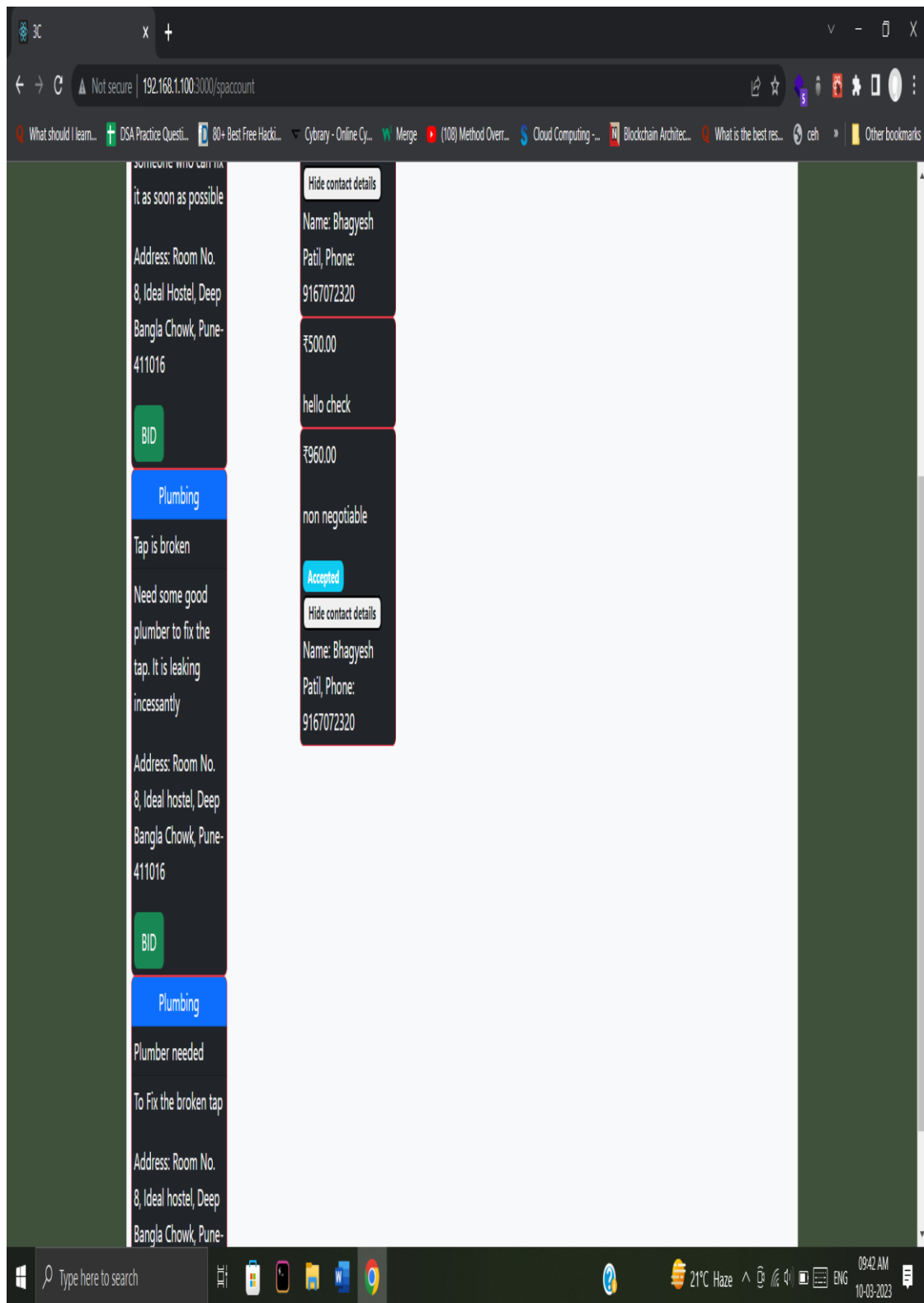
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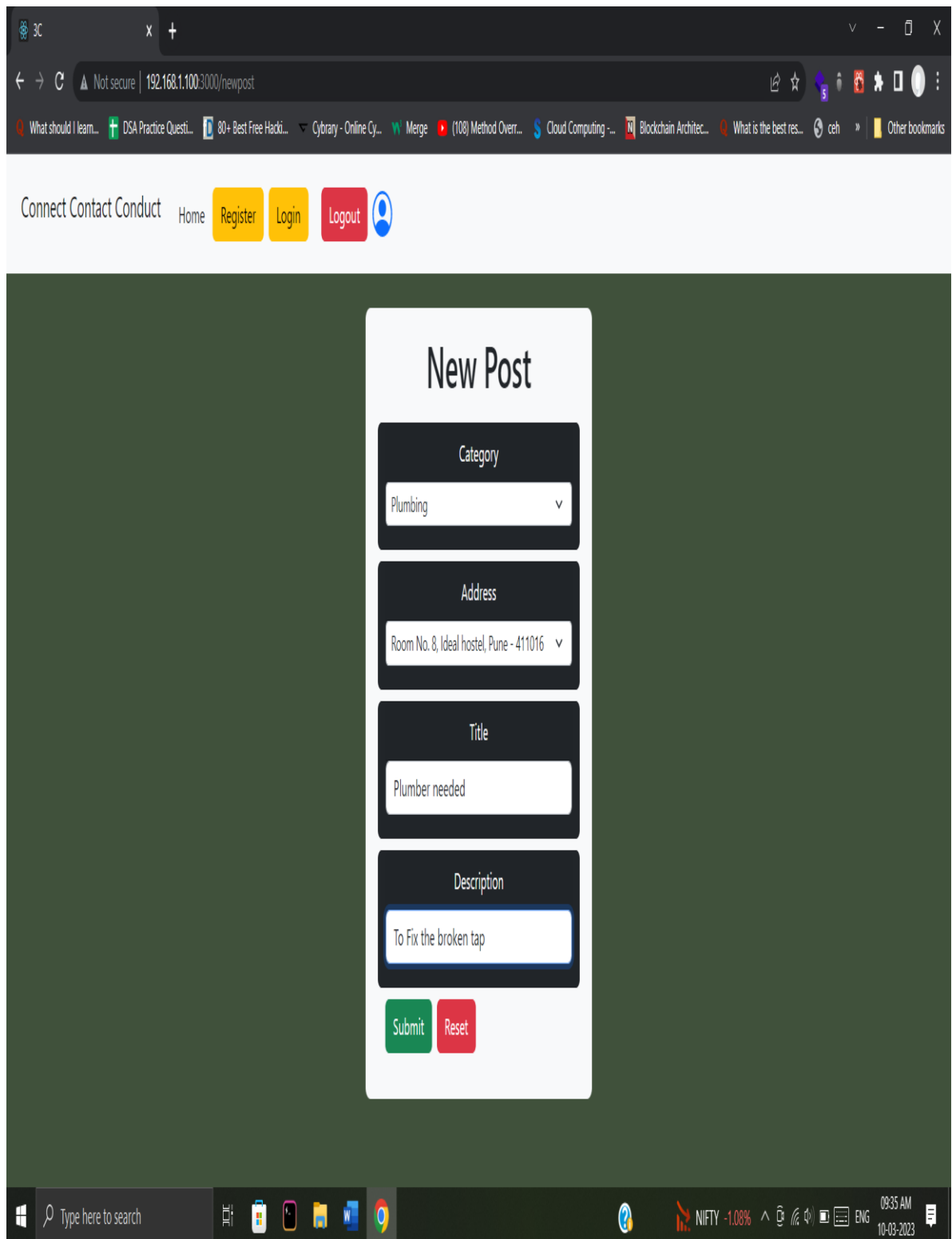
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