# FARGOLOANS A BANKING APPLICATION



## INTRODUCTION

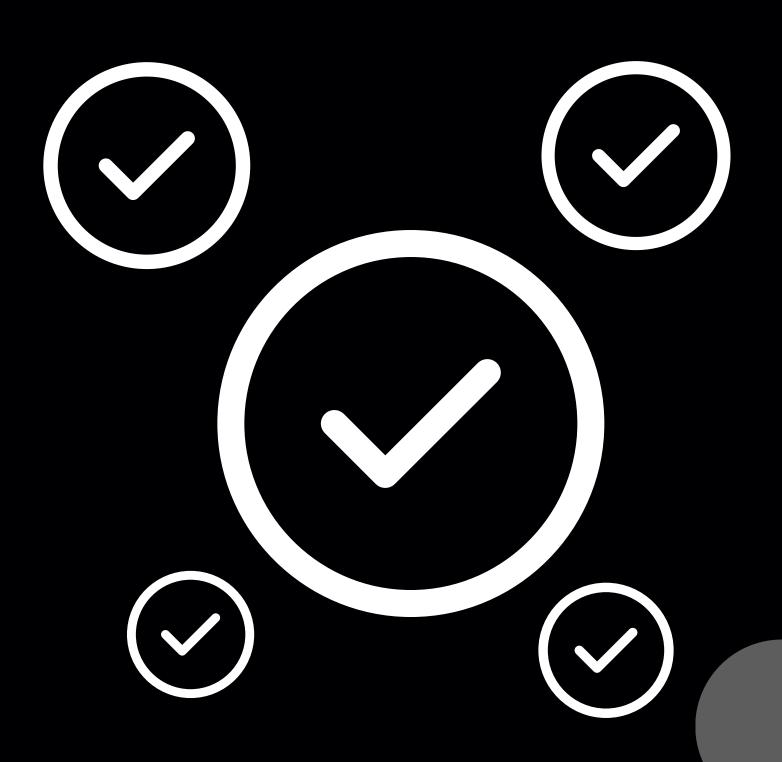
- The "Online Banking Portal" has been developed to overcome the problems in the existing manual Banking system.
- This software is built to reduce or eliminate the hardships faced while using the existing system.
- •Moreover, this system is designed for the particular need of the company to carry out operations smoothly and effectively.
- The application is straightforward which helps the users to update the information while creating and using their accounts.
- OIt also provides an error message when the user enters invalid data.
- No formal knowledge is needed for the user to use this system. Thus it proves that the portal is user-friendly and can lead to error free, secure, reliable and fast Banking.





## OBJECTIVES

- To create a Remote banking platform where the customers can update their information,
- Check their balance and transact money to or from their accounts.
- The Application calculates the Balance of the customer after every transaction.
- To provide comfortable and User-friendly experience to the customers.



# FUNCTIONALITIES OF THE PROJECT

Register and Logging in the Bank Accounts

Transaction Details and Monitoring by the Admin

03 Online Transactions

O4 Automatic Balance updates.

Tracking and Displaying the user information.

Updating the user information.



## SYSTEM REQUIREMENTS

#### Software

- JDK 1.8
- Tomcat Apache Server
- Eclipse
- MySQL Version 5.5

#### Hardware

- Memory- 4GB/ Above
- Storage- 256 / Above

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React is a JavaScript library for building efficient and dynamic user interfaces through a component-based approach

#### SpringBoot

Spring Boot is an open-source, microservice-based Java web framework offered by Spring, particularly useful for software engineers developing web apps and microservices.

#### **REST API**

A REST API is an API that conforms to the design principles of the REST, or representational state transfer architectural style.

#### **SQL Database**

SQL (Structured Query Language) is a specialized language for managing databases, enabling efficient data retrieval, storage, and manipulation for diverse applications.

#### **POSTMAN**

Entity Framework is a Microsoft technology simplifying database interaction by letting developers use .NET objects, enhancing data access and manipulation in applications.

#### METHODOLOGIES & PRINCIPLES

## 6S PRINCIPLES



#### Scalability

Using SQL for vertical scaling and using 3 tier architecture.



#### Speed

Using optimal algorithms for all the functionalities (i.e. API calls, routing, database querires, tc)



#### Security

We are using JSON web token-based authorization to protect all the routes from unwanted access.



#### Stability;

We are using REST API and react which has a large community and has long long-term support and our product has been tested and proven stable across multiple devices and browsers.



#### Skills

Development of this project involves a large variety of skills including computer science fundamentals, software development, designing, frontend and backend.



#### Satisfaction

We aim to provide a complete web-based banking solution from a bank admin perspective.

Schema

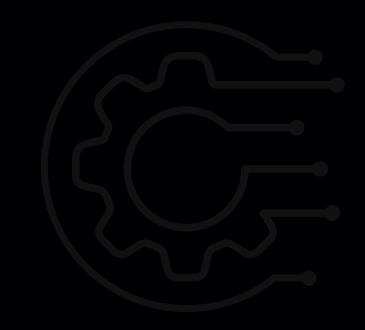
We use SQL server as our database. In springboot we use, data-jpa for accessing the databse. The following schemas are used:

Employee Table
ld*
Name
password
department
designation
doj
dob

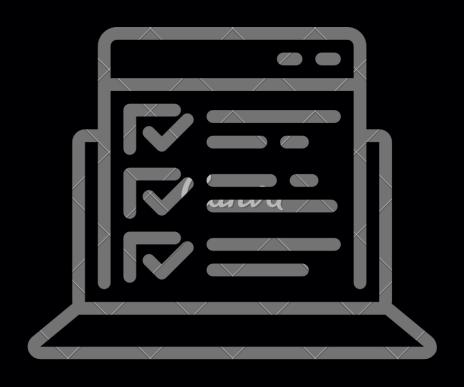
Item Table	Loan Table
	ld*
ItemId*	Category
Category	Duration In Years
Description	

Issue Table	
ld*	
Empld*	
LoanId*	
ItemId*	
item Make	
item value	
issue Status	
issue Date	





## PROJECT SCREENSHOTS





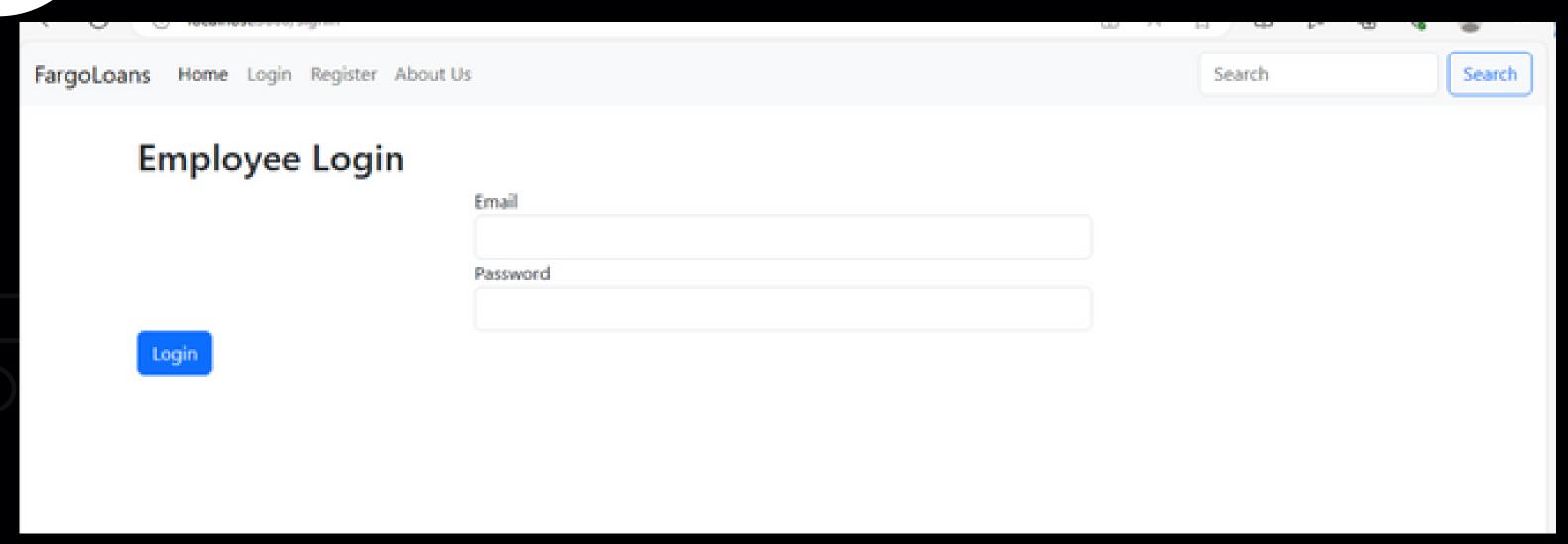
Login (Authentication / Authorization)

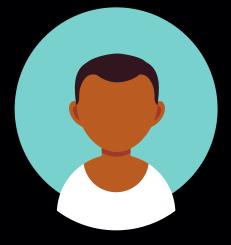
For authentication, we use JWT token. When a user logs in using email, password, a JWT token is returned. That token is sent by the user in the header in each api requests. The token has an expiry of 10 mins.

Each JWT token is encoded, using the username and the role of the user. This information is stored in the backend database. Currently only the admin can call the api's except the login api so the database contains the credentials of each admin. When a user sends the JWT token in any api requests, the token is decoded in the backend using a secret key stored in the backend to get the email and role of the user. This role is checked to see if the user has sufficient permission to call the respective api.



#### LOGIN PAGE





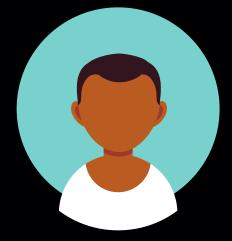
#### ADD EMPLOYEE

#### Add Employee

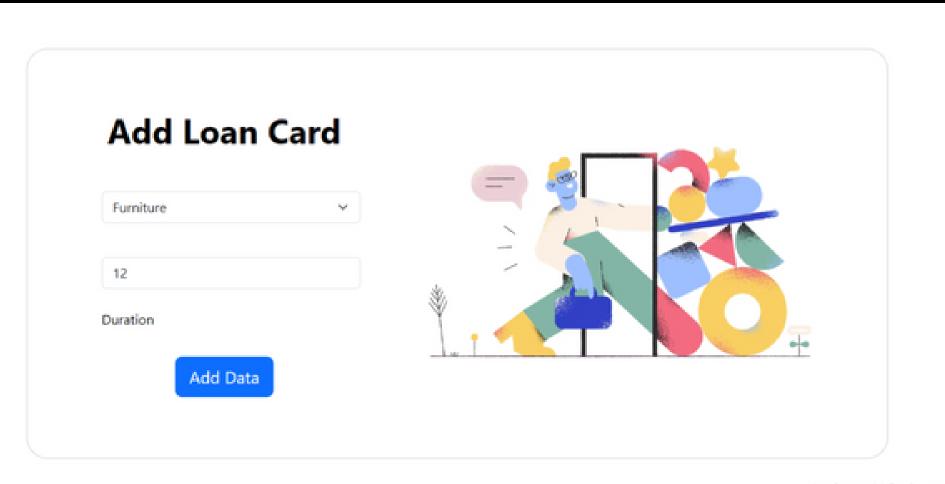
Mahak Chhajer Your Name 12-12-2000 Date of Birth 12-12-2023 Date of Joining Department Designation Admin Yes O No ...... Default Password



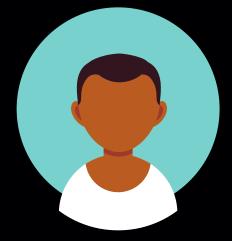
Activat Go to Set



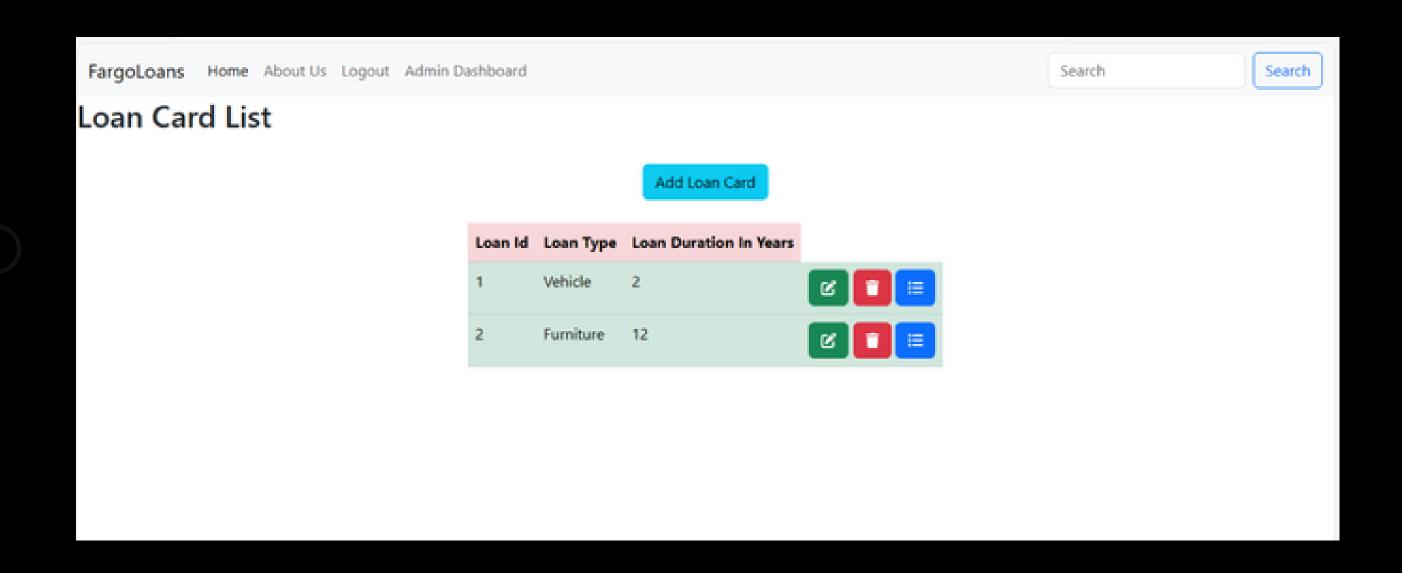
## ADD LOAN CARD

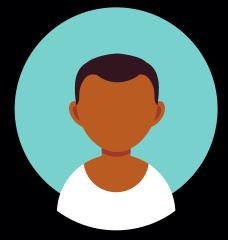


Activate Windows Go to Settings to activate W

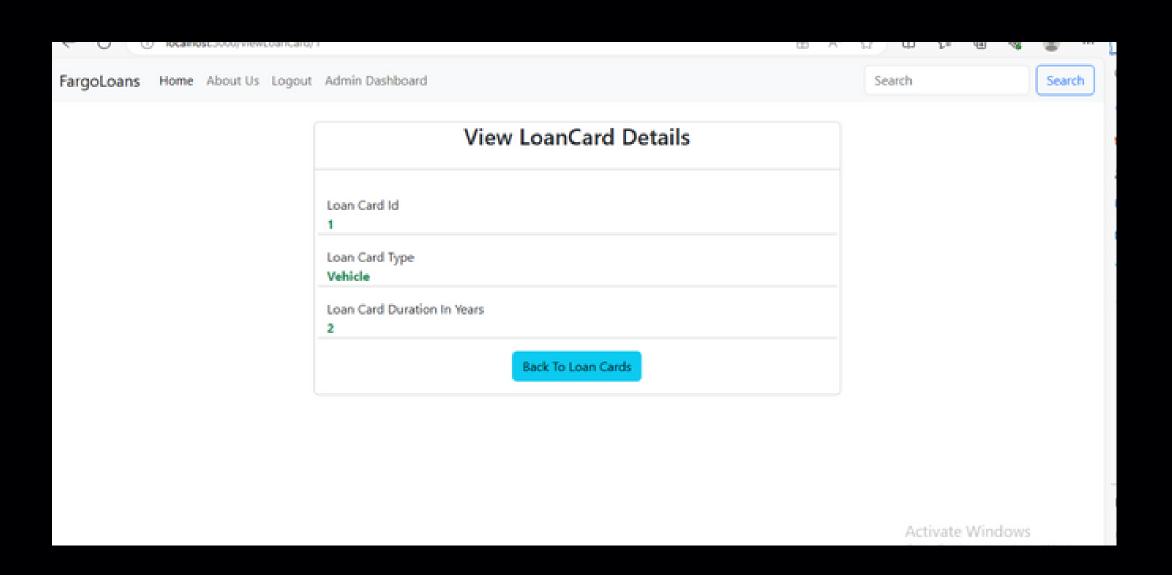


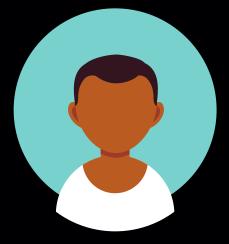
#### VIEW LOAN CARDS



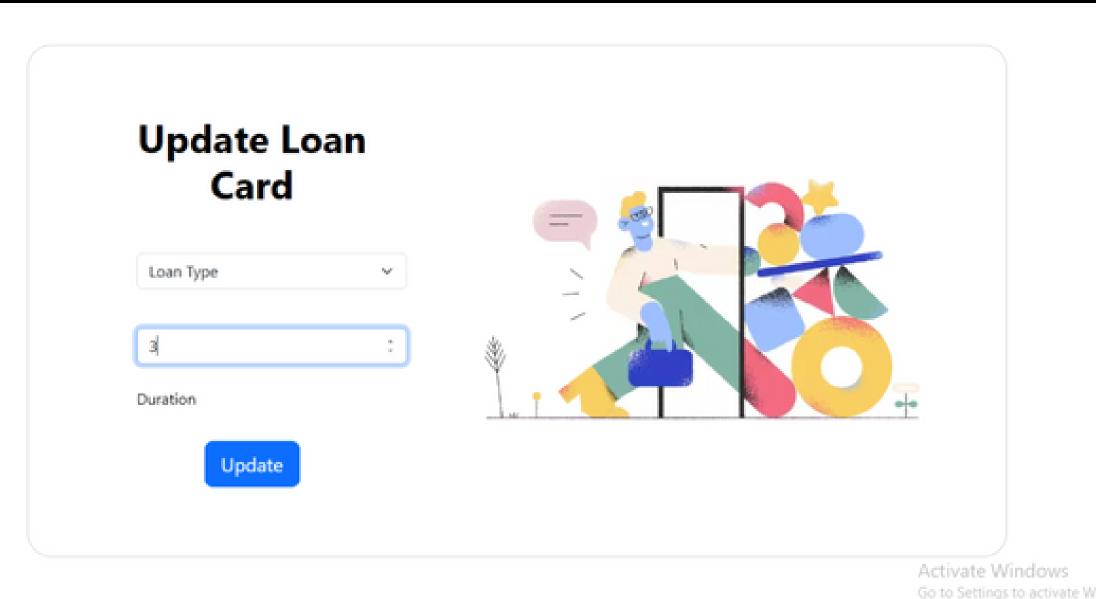


#### VIEW LOAN CARDS

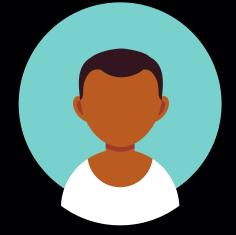




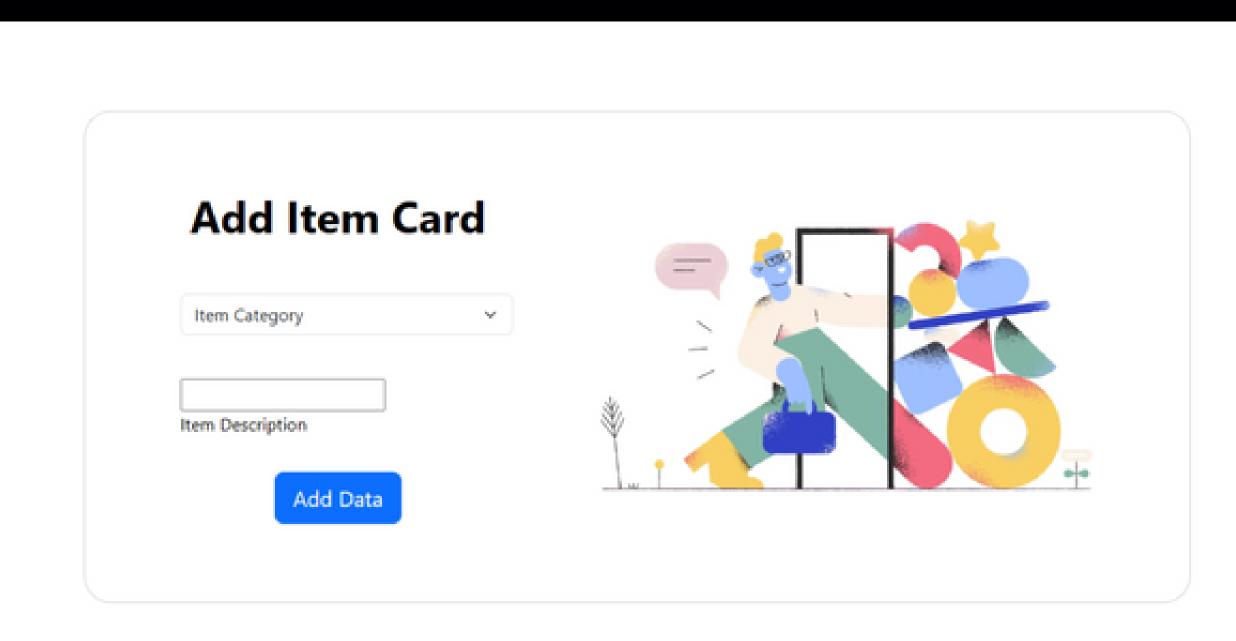
## UPDATE LOAN CARDS



Go to Settings to activate Wind



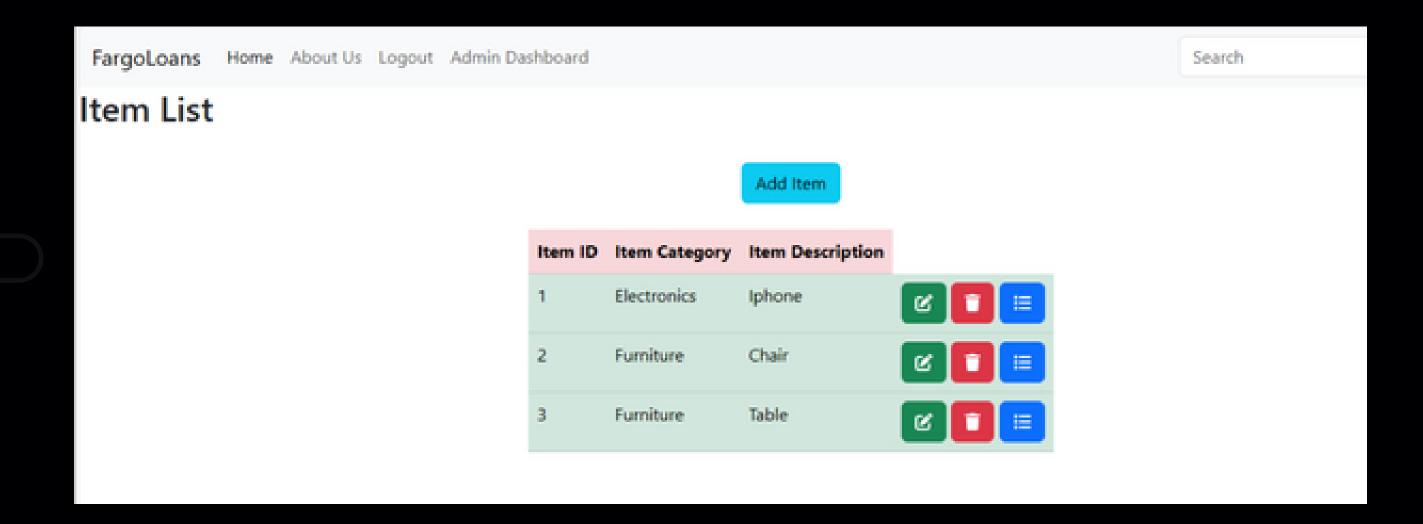
## ADD ITEM

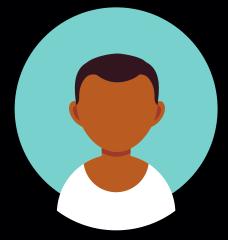


Activate Windows

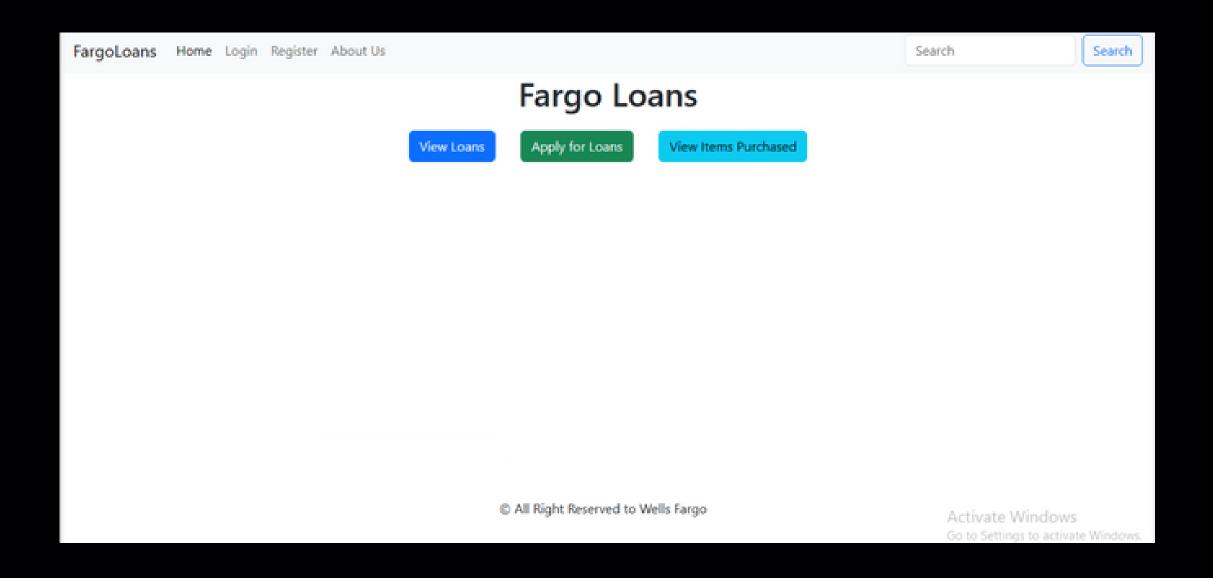


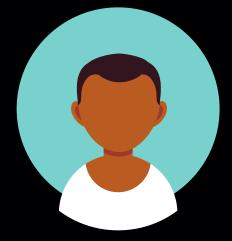
#### ITEM MASTER



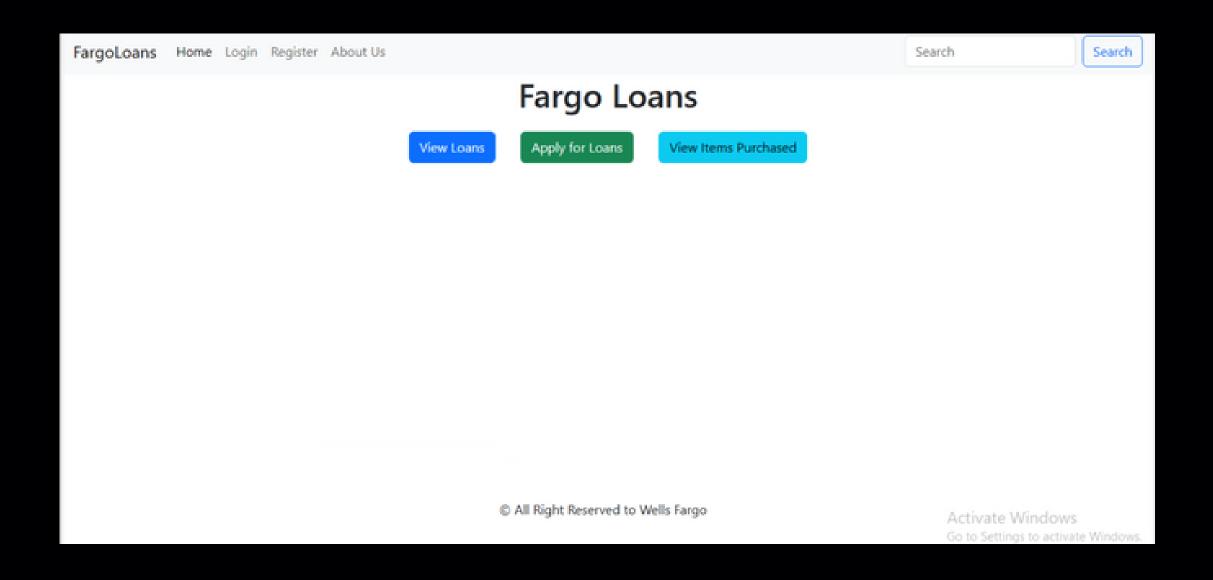


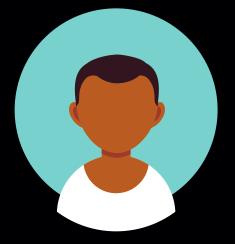
## EMPLOYEE HOMEPAGE



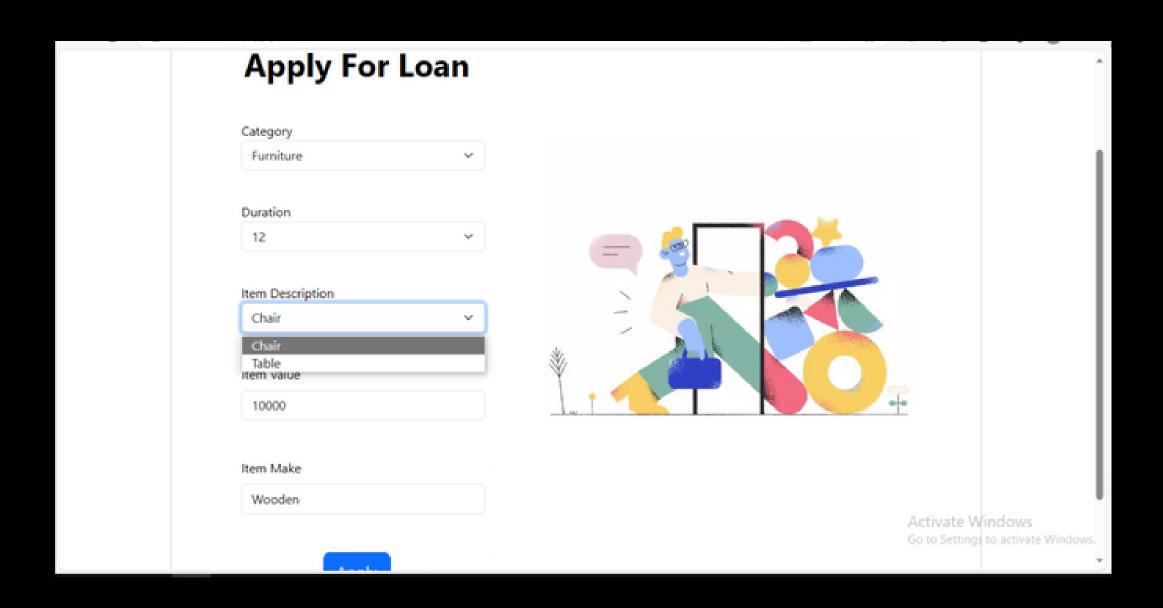


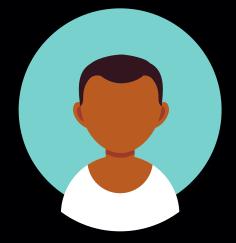
## EMPLOYEE HOMEPAGE



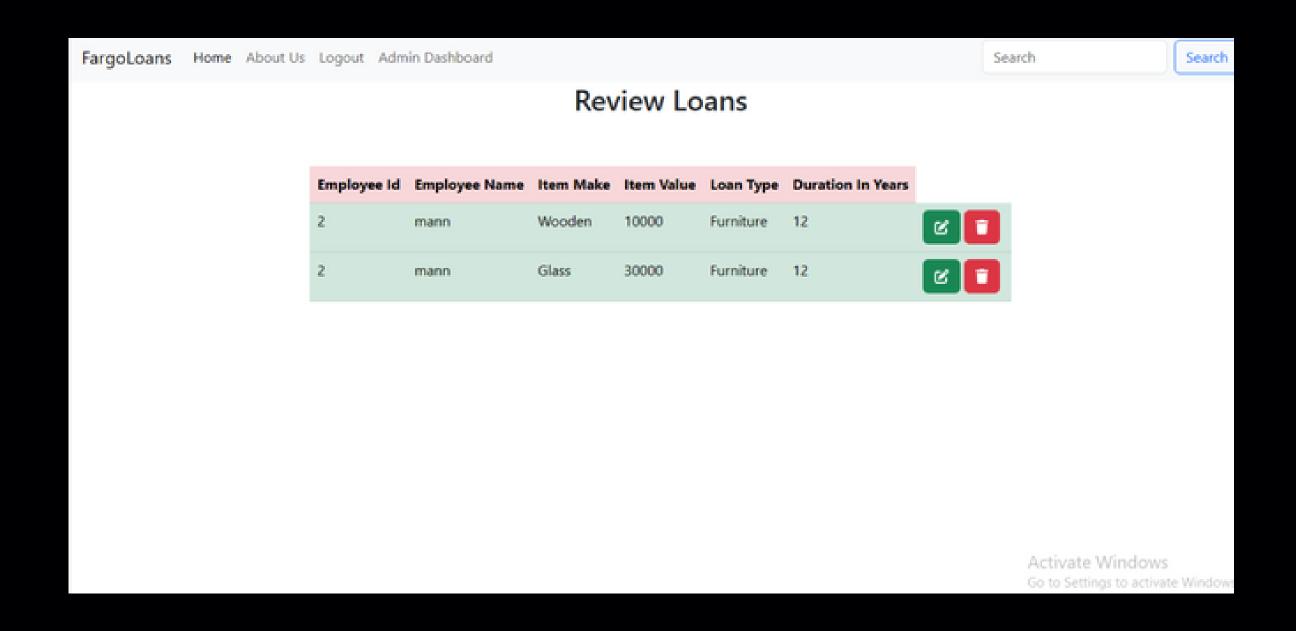


# EMPLOYEE APPLY FOR LOAN



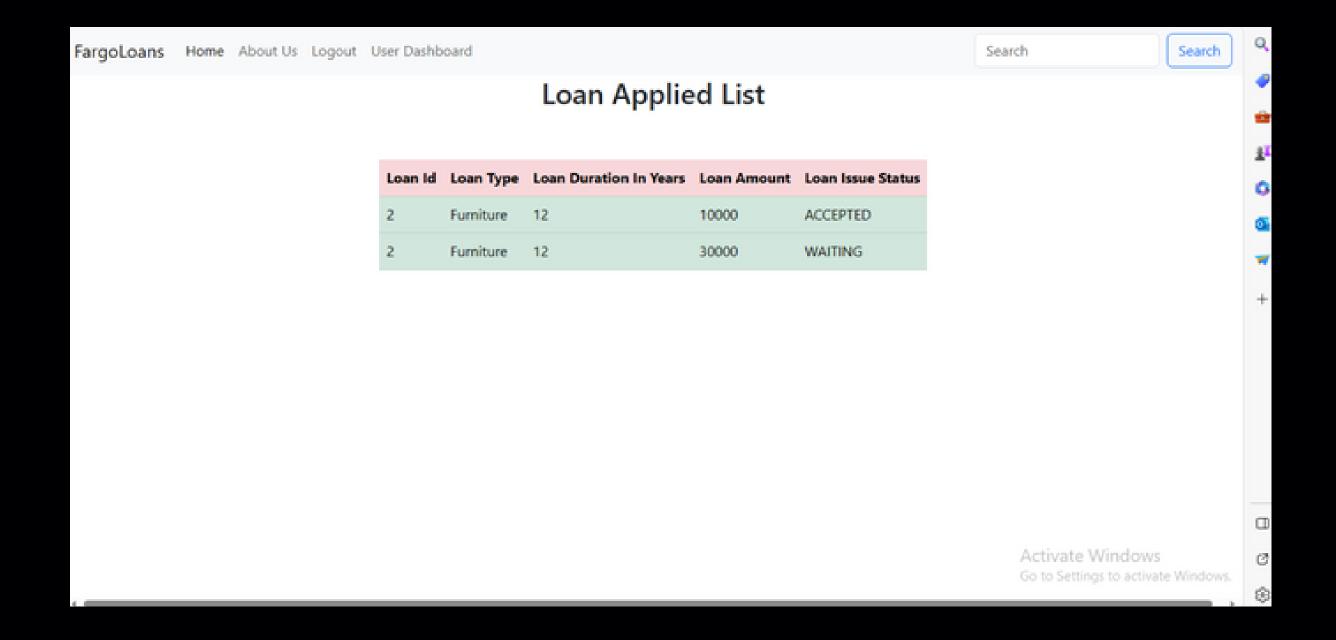


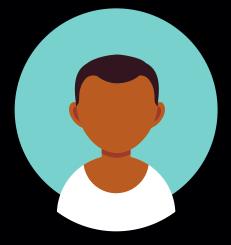
## ADMIN ACCEPTS/ REJECTS LOAN



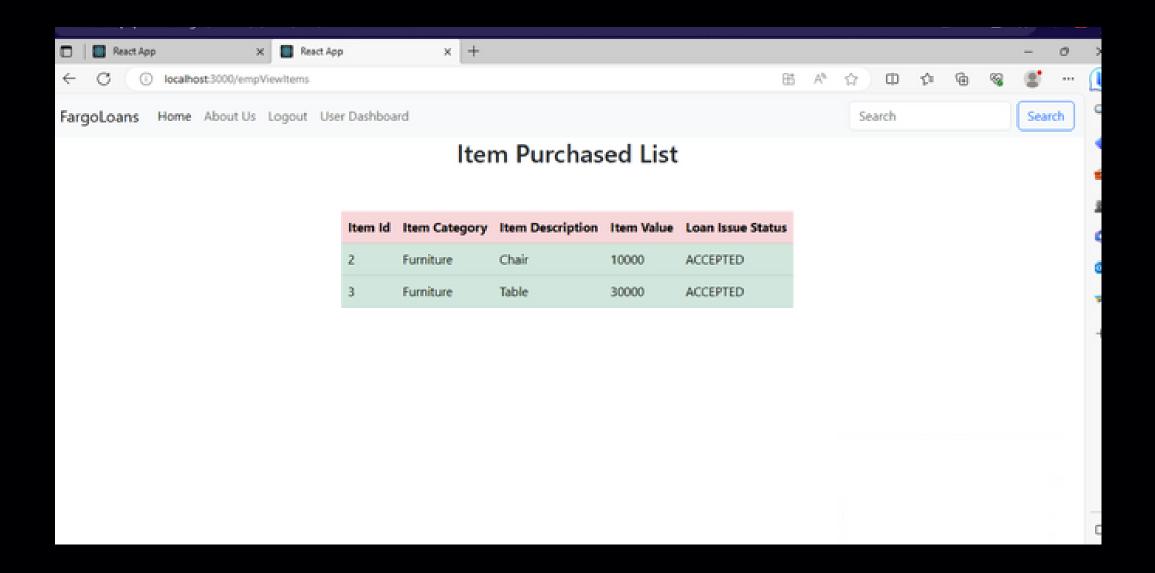


#### EMPLOYEE VIEW ALL LOANS

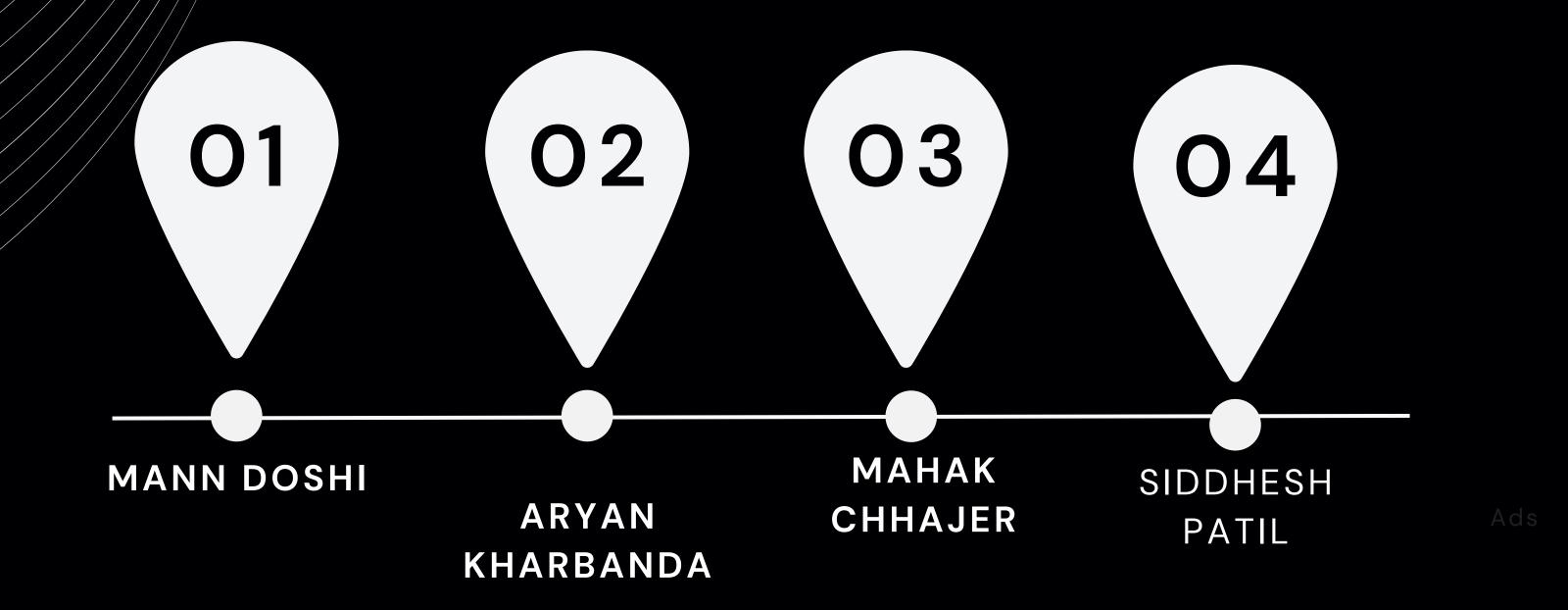




## EMPLOYEE VIEW ITEMS



## MEET OUR TEAM





# Are there any Questions?

