Technical Design

TREASURY Bank ATM system

August 2021
Version: 1.0

Contents

PROBLEM STATEMENT

“In this covid stricken society,customers of TREASURY Bank need to withdraw money and see the savings balance without contact with the ATM machine”

Introduction

Treasury is a website for an ATM system which aims to help Treasury bank customers to withdraw money from their bank deposit using their full name and sufficient withdrawal amount.After the withdrawal,the application will print the savings balance on the screen.If the entered credentials are wrong,then the application will also generate alert messages regarding the same.

Functional Understanding & Description

The Treasury website contains a responsive User Interface(UI).

- User Interface: Contains 2 input fields for username and amount to be withdrawn. It also has a ‘Withdraw’ button to withdraw the cash.
- The credentials and the amount is checked against the database in the server.
- Withdrawal request: If the credentials are correct and the withdrawal amount is not higher than the savings balance,the savings balance is printed on the screen along with a ‘Withdrawal Successful’ message, on clicking the ‘withdraw’ button.

  If the credentials are incorrect or the withdrawal amount is higher than the savings balance,the UI will generate an alert message box on clicking the ‘withdraw’ button.

Tech Stack

- FRONT END - HTML5,CSS,JavaScript,Bootstrap
- BACK END -MySQL,PHP,Node js

Client-Server

- The client-side of the webpage is done using HTML5, CSS, JavaScript .

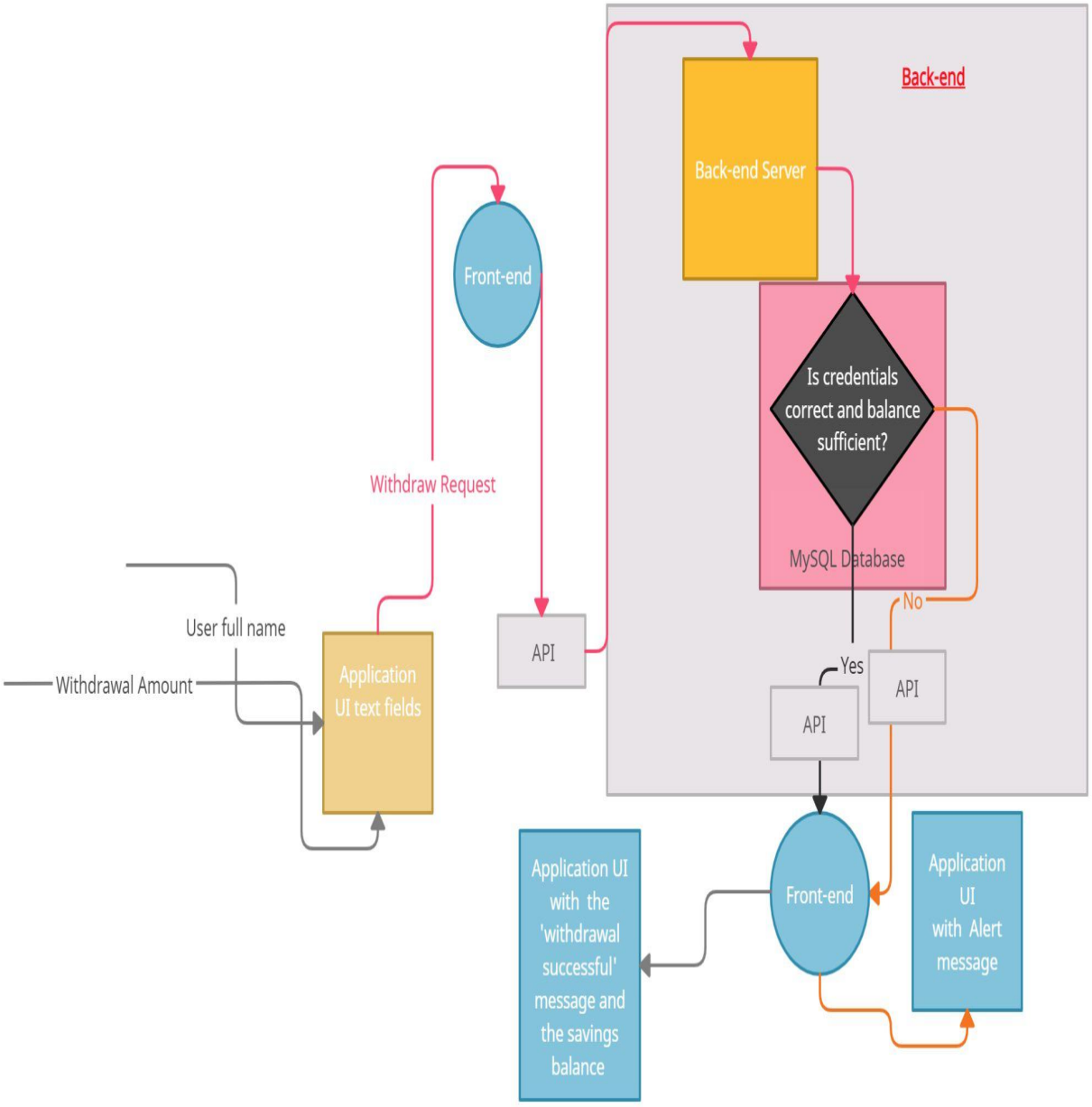
Web server

- Back end Server setup by node js and express framework

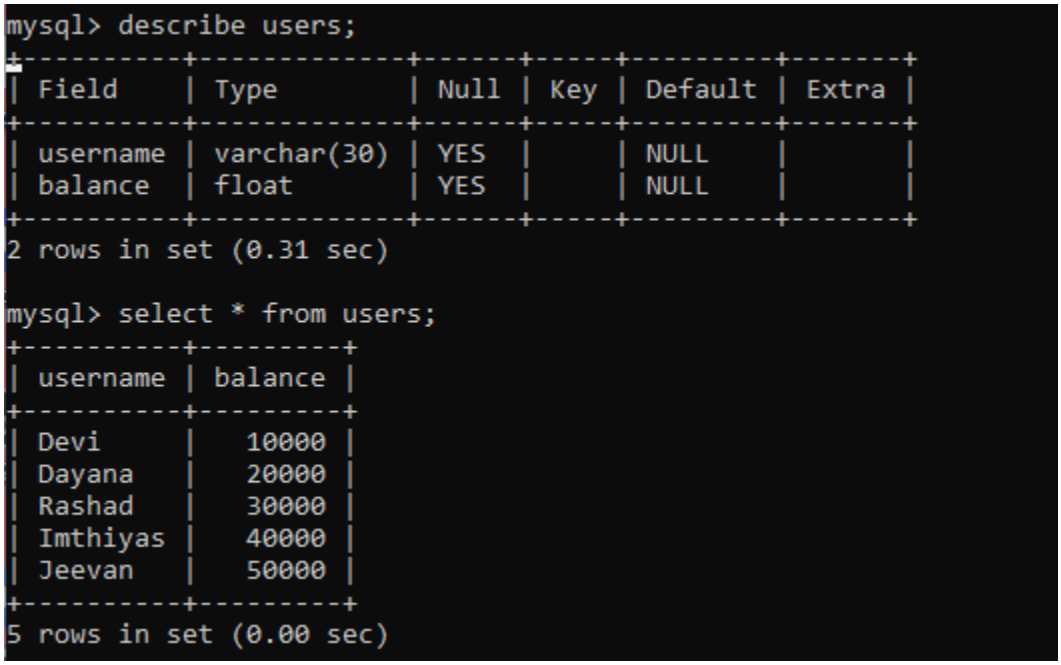
Data Server

- MySQL was used for managing the database of the application.
- MySQL is used for its RDBMS structure and ease of data fetching from different tables.

Application Architecture



DATABASE MODEL



```
mysql> describe users;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| username | varchar(30) | YES  |     | NULL    |       |
| balance  | float       | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
2 rows in set (0.31 sec)

mysql> select * from users;
+----------+---------+
| username | balance |
+----------+---------+
| Devi     |   10000 |
| Dayana   |   20000 |
| Rashad   |   30000 |
| Imthiyas |   40000 |
| Jeevan   |   50000 |
+----------+---------+
5 rows in set (0.00 sec)
```

User Management

Users will get their access to the application after they enter correct credentials and withdrawal amount must be less than savings balance.Thus they can withdraw money.If the credentials are incorrect or withdrawal amount is greater than savings balance,they will get an alert message.

Basic UI Structure