

Asset - X (A Mini Bank)

Pre-requisites

To develop a Bank using JavaScript, Node.js, Express.js, and MongoDB, there are several prerequisites you should consider. Here are the key prerequisites for developing such an application:

1. **Node.js and npm**: Install Node.js, which includes npm (Node Package Manager), on your development machine.

Node.js is required to run JavaScript on the server side.

- Download: <https://nodejs.org/en/download/>

- Installation: <https://nodejs.org/en/download/package-manager/>

2. **MongoDB**: Set up a MongoDB database to store banking-related information. Install MongoDB locally

or use a cloud-based MongoDB service.

- Download: <https://www.mongodb.com/try/download/community>

- Installation instructions: <https://docs.mongodb.com/manual/installation/>

3. **Mongoose**: Mongoose is a MongoDB library which acts as an ODM (Object Data Model). It helps establish a connection between the server and a client.

4. **Express.js**: Express.js is a web application framework for Node.js. Install Express.js to handle server-side routing, middleware, and API development.

- Installation: Open your command prompt or terminal and run the following command:

```
```bash
npm install express
```
```

5. **Database Connectivity**: Use a MongoDB driver or an Object-Document Mapping (ODM) library like Mongoose

to connect your Node.js server with the MongoDB database and perform CRUD (Create, Read, Update, Delete) operations.

6. **Development Environment**: Choose a code editor or Integrated Development Environment (IDE)

that suits your preferences, such as:

- **Visual Studio Code**: Download from <https://code.visualstudio.com/download>
- **Sublime Text**: Download from <https://www.sublimetext.com/download>
- **WebStorm**: Download from <https://www.jetbrains.com/webstorm/download>

Introduction

Asset - X is a mini banking application that integrates a bank API to provide users with fundamental banking functionalities. This document outlines the steps required to integrate the bank API for user authentication, account management, and transaction handling.

Implementation

Step 1: Understand the Project Requirements

- User Registration & Login
- Account Management (Check Balance, Deposit, Withdraw)
- Transaction History

Step 2: Setup the Development Environment

- Install dependencies for the frontend (React, Vue, or Angular)
- Clone the bank's API repository and install dependencies

Step 3: Implement User Authentication

- Create signup and login components using React

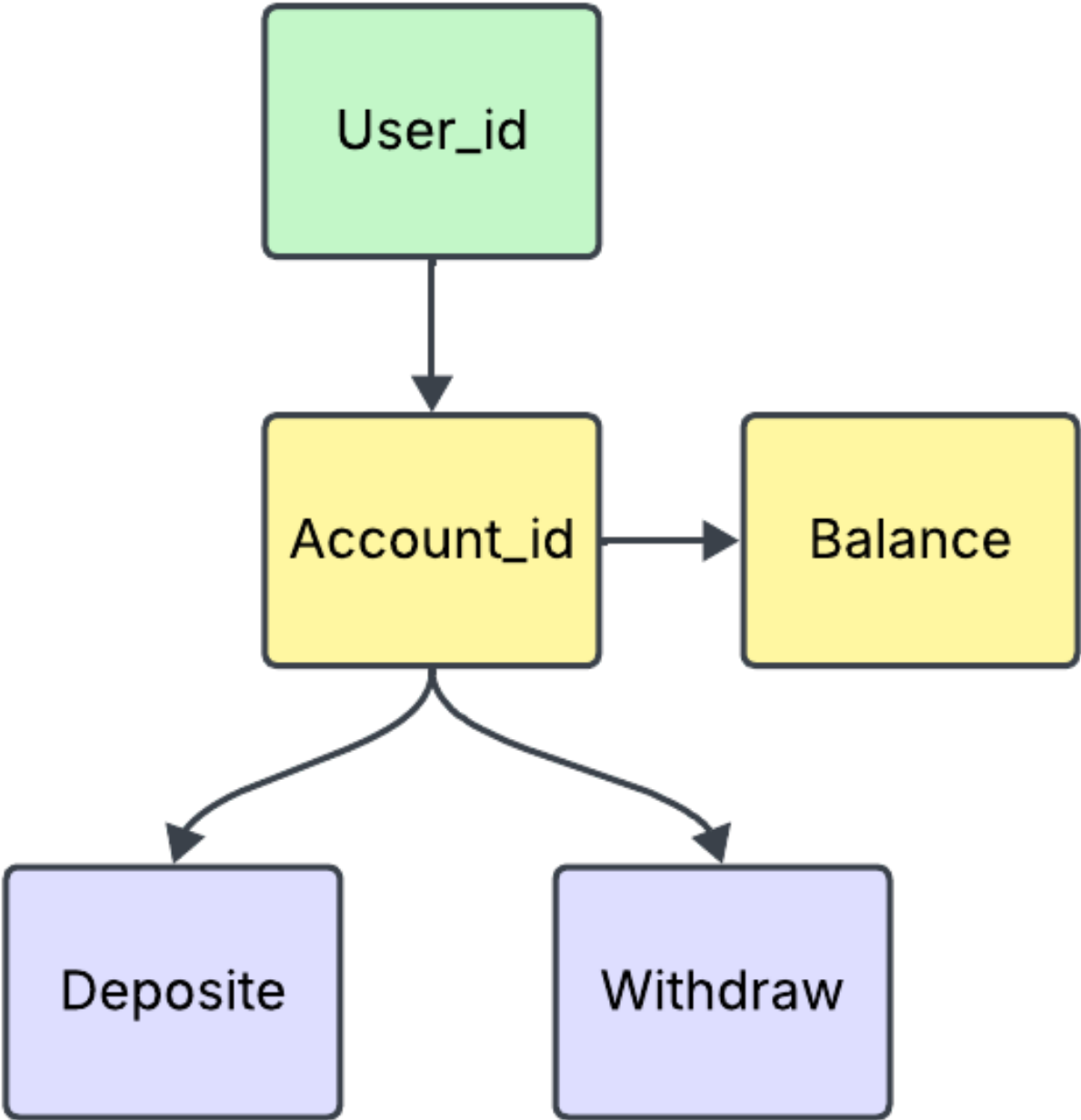
Step 4: Implement Banking Features

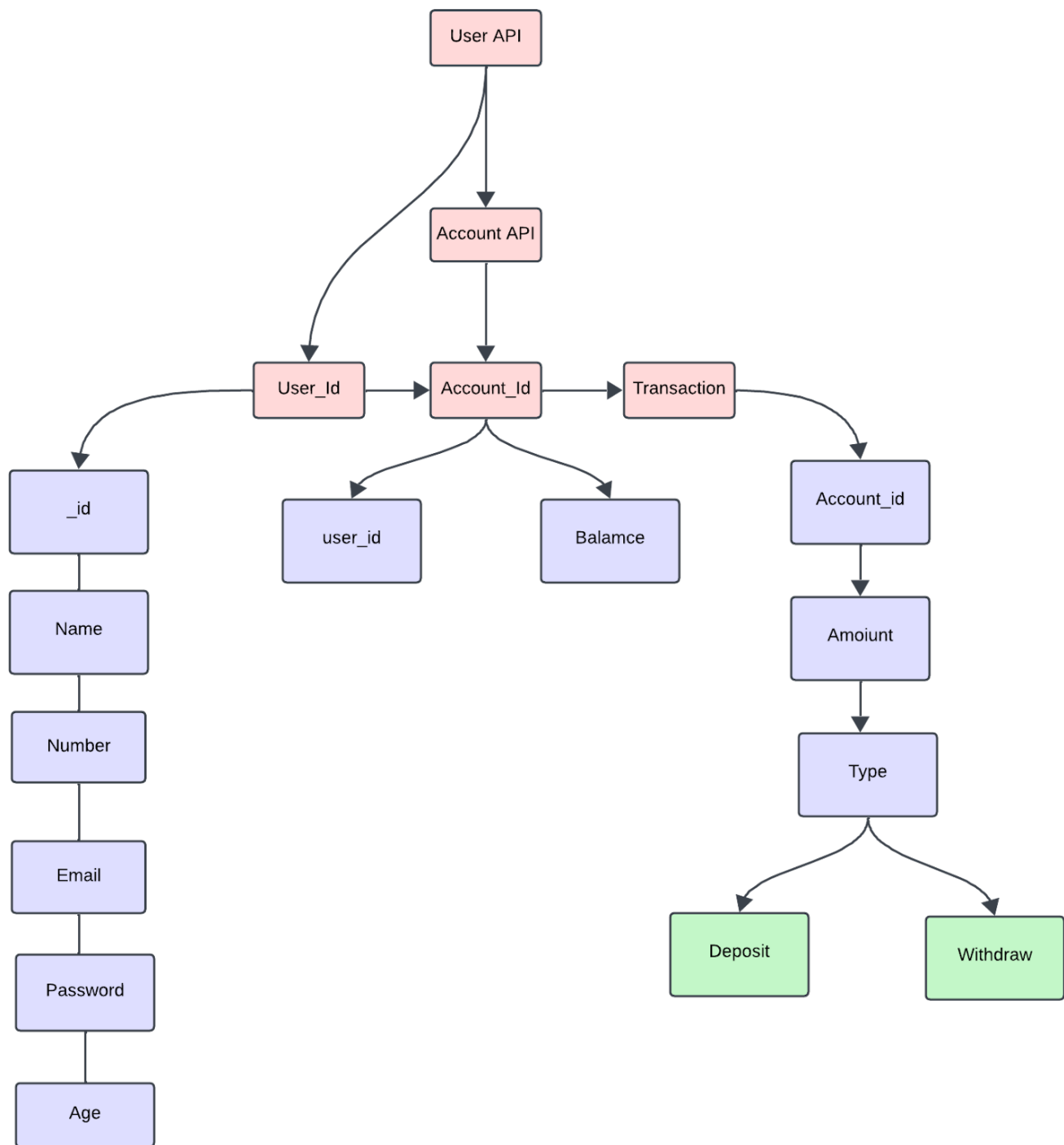
- Check balance, deposit money, withdraw money using API calls

Step 5: Testing & Deployment

- Test using Postman
- Deploy frontend on Vercel/Netlify and backend on AWS/Heroku

ER Diagram





Conclusion

By following these steps, the integration of Asset - X with the bank API enables seamless user account management and transaction processing. This mini banking application ensures secure authentication and smooth operations for basic banking needs.