Team Financially Illiterate

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Team Members

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Project Overview

Problem: Keeping track of money is complicated

- Budgeting requires a lot of tracking

- Numbers have to come from many different places

- Automating calculations could save a lot of stress

Project/Business Case

Solution: Financial Planner

- Track income, bills and other payments

- Calculate monthly budget and savings

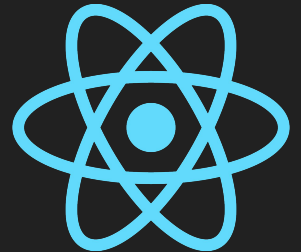- Visualize spending and savings to make it understandable

Front End Technologies

- JavaScript
- Html/CSS
- React
  - Front end Javascript library
- Bootstrap
  - CSS Framework
- Redux
  - Javascript Library for Application State
- React-Router
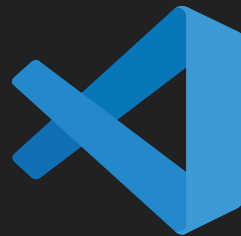 - Routing Library

Bootstrap

Back End Technologies

- Node JS
  - Open Source Server Environment
- Express
  - Web Application Framework
- AWS RDS
  - Amazon Web Services Relational Database Service
- MySql
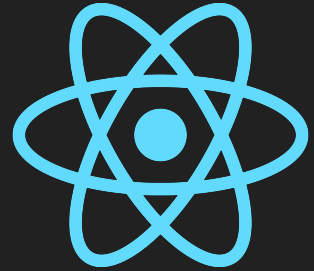 - Relational Database Management System

Tools

- **Visual Studio Code**
  - Source code editor
- **Figma**
  - Interface design and prototyping
- **Github**
  - Version control
- **Jest**
  - Testing Framework
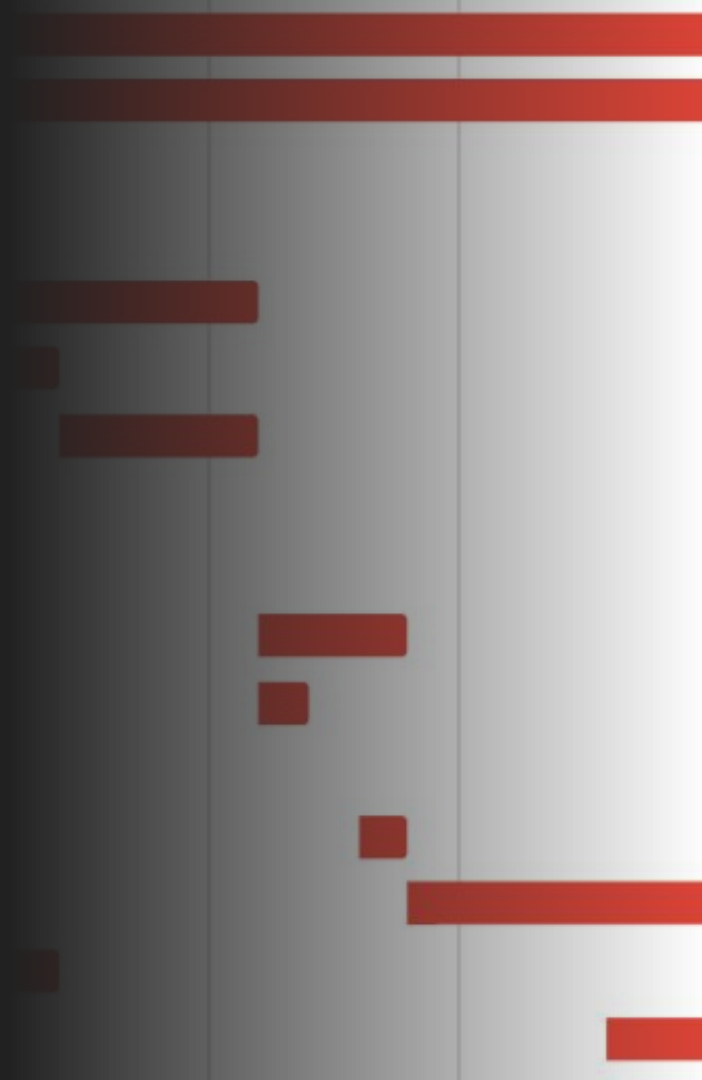- **Mpld3**
  - JS Graphing Library

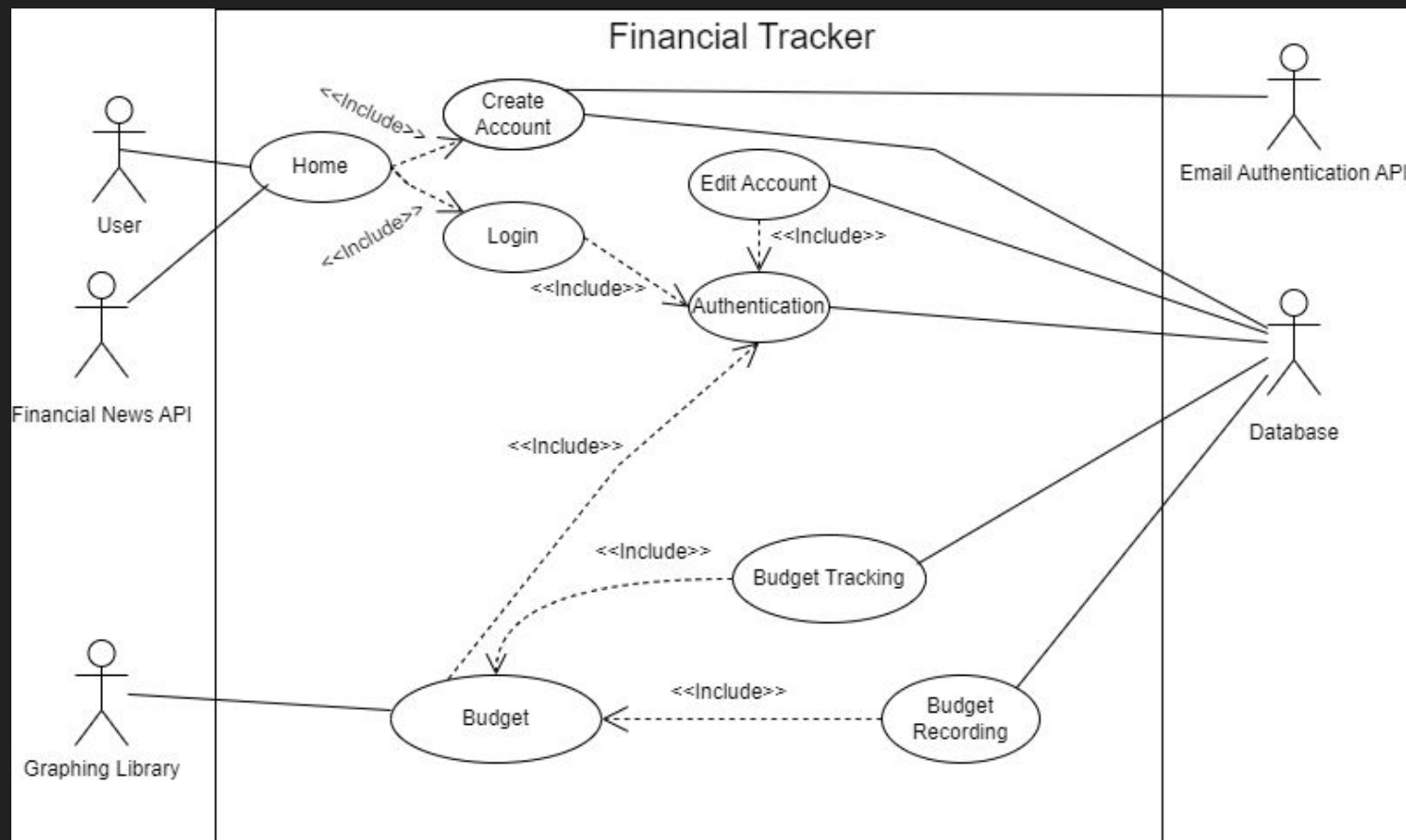# New/Unfamiliar Technologies

- Mpld3
  - Graphing Library for JS
  - Chosen due to similarities with MatPlotLib

- React.js
  - JS Framework based on Node
  - Chosen due to two of us taking a class on React

- Jest.js
  - Unit Testing for JS
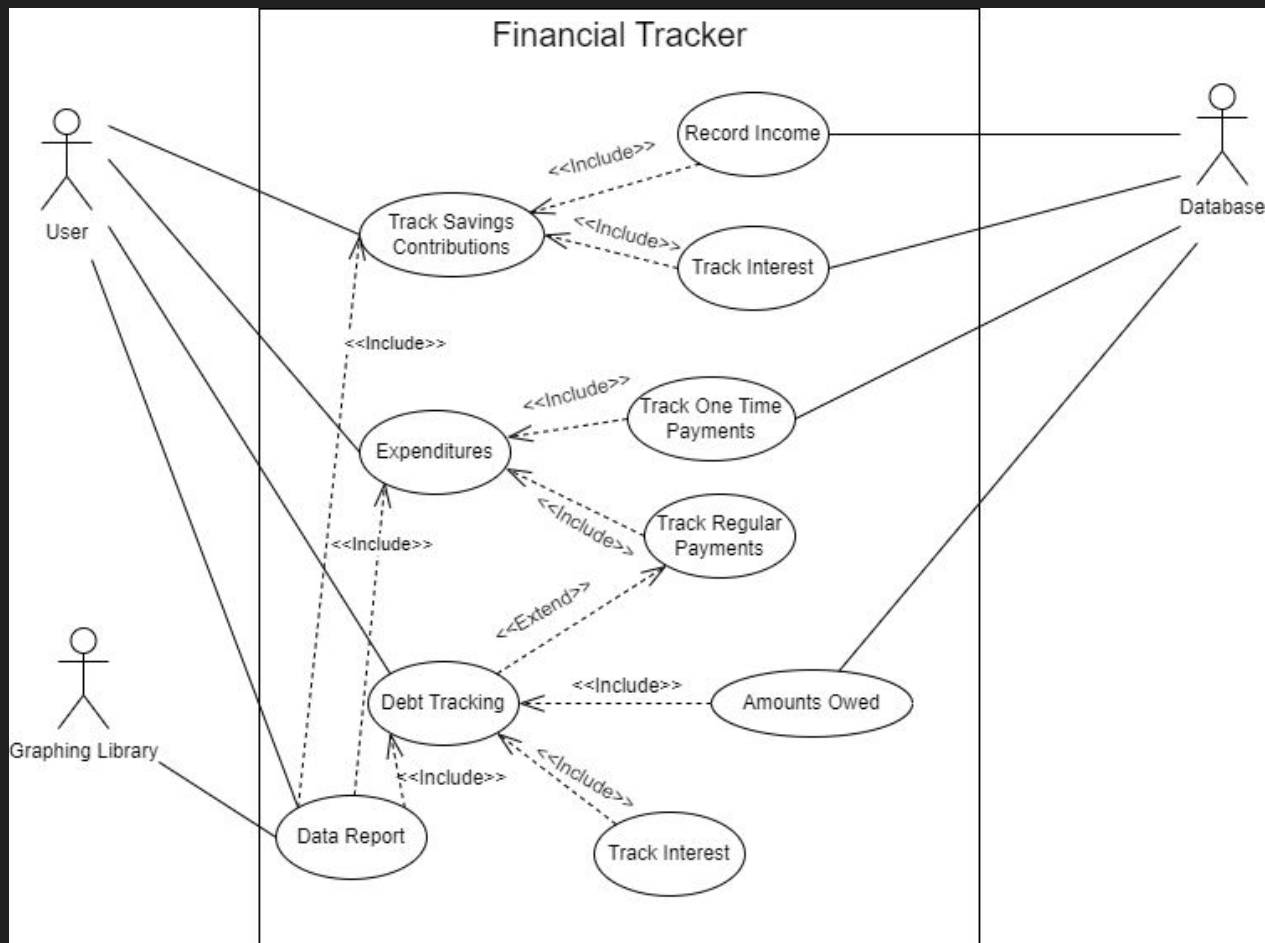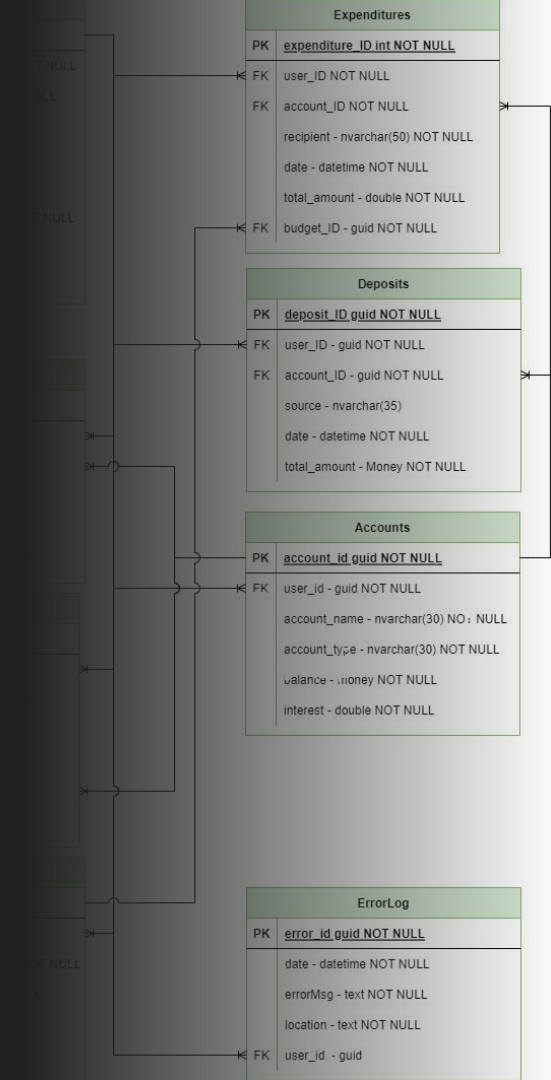 - Chosen for simplicity, ease of deployment
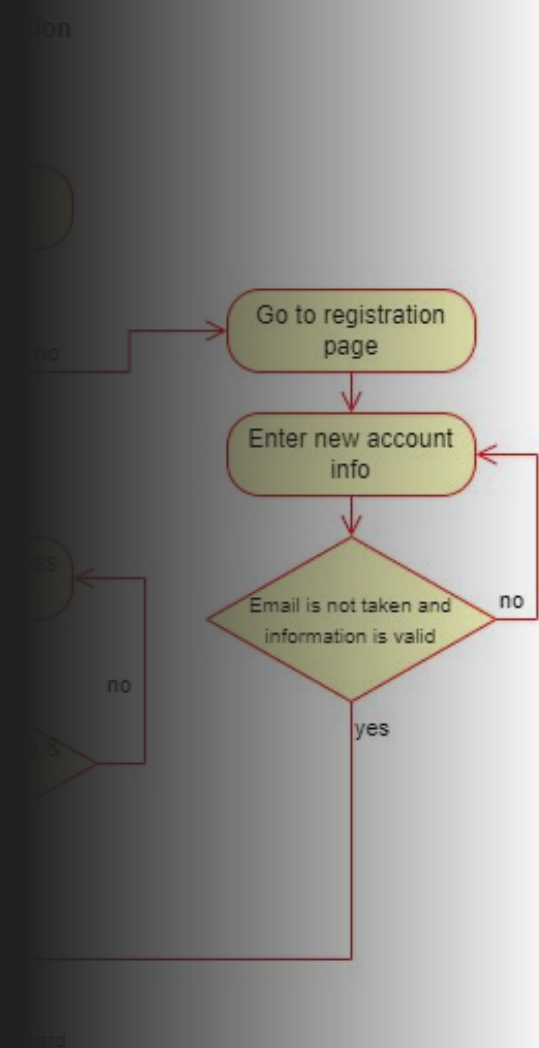
Gantt Chart

Use Case Diagram

Use Case Diagram

Database Entity Relationship Diagram (ERD)

Expenditures

PK	expenditure_ID int NOT NULL	
FK	user_ID NOT NULL	
FK	account_ID NOT NULL	
	recipient - nvarchar(50) NOT NULL	
	date - datetime NOT NULL	
	total_amount - double NOT NULL	
FK	budget_ID - guid NOT NULL	

Deposits

PK	deposit_ID guid NOT NULL	
FK	user_ID - guid NOT NULL	
FK	account_ID - guid NOT NULL	
	source - nvarchar(35)	
	date - datetime NOT NULL	
	total_amount - Money NOT NULL	

Accounts

PK	account_id guid NOT NULL	
FK	user_id - guid NOT NULL	
	account_name - nvarchar(30) NOT NULL	
	account_type - nvarchar(30) NOT NULL	
	balance - money NOT NULL	
	interest - double NOT NULL	

ErrorLog

PK	error_id guid NOT NULL	
	date - datetime NOT NULL	
	errorMsg - text NOT NULL	
	location - text NOT NULL	
FK	user_id - guid	

Activity Diagrams

Go to registration page

Enter new account info

Email is not taken and information is valid

no

yes

no

no

Class Diagram

Sequence Diagrams

user:Login

user:AccountEdit

Database

Email

Salt

Email and
Encrypted, Salted Password

User ID

ate account information

email

salt

email and encrypted,
salted password

account information

m prefilled with current info

d account info

updated account info

success message

te successful

Wireframe Prototype