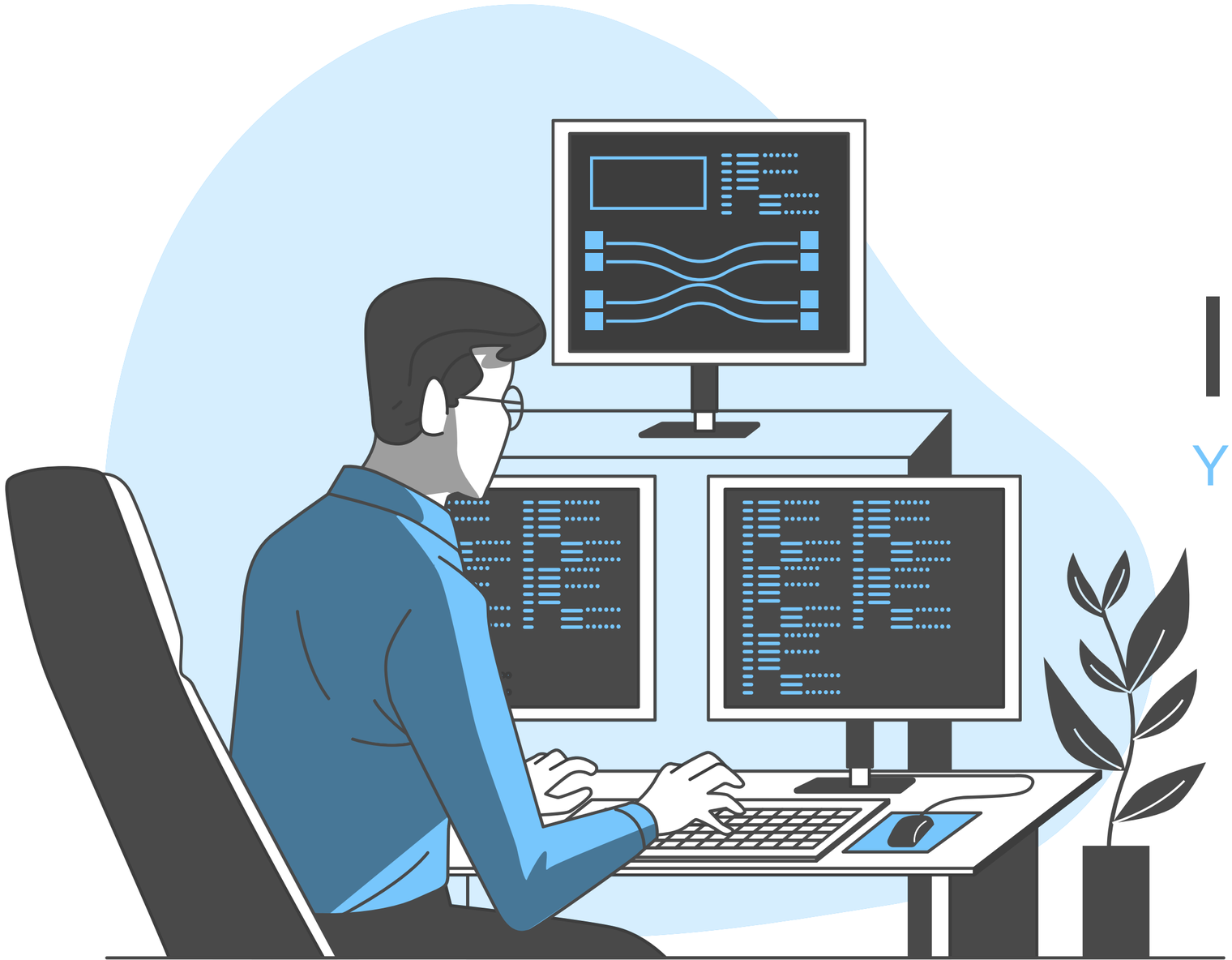


IHateMoney

Your Path to Love your Money

A project for
Web Application Development course

Dang Nhat Huy - ITITIU20043
Ho Huu Hiep - ITITIU20202

01

Introduction

Define problem, explain goals and scope

02

Technology Stack

Explore technologies applied for the system

03

Methodology

Analyze requirements and system design

04

Implementation & Evaluation

Demo about the system

05

Discussion & Future Work

Anticipating future outlook and opportunities

06

Conclusion

Final summary

Project Features

- **User Registration and Authentication**: Securely register and log in to access financial details.
- **Dashboard**: View a snapshot of financial status, including income, expenses, and savings.
- **Expense Tracking**: Easily track and categorize income and expenses to manage budgets.
- **Income Management**: Add and manage income sources for a clear overview of cash flow.
- **Budgeting**: Set and track personalized budgets for various expense categories.
- **Reports and Analytics**: Access detailed reports and analytics to examine finances and spot spending trends.

01

Introduction

Introduction

Problem: The relentless pursuit of money causes stress and financial insecurity, leaving many overwhelmed by debt and consumerism [1].

Objective: To equip users with tools for effective financial management, promoting smarter spending and greater financial stability.

Scope: The app provides essential features like real-time expense tracking, budgeting, and data visualization to improve financial decision-making.

02

Technology Stack

Front-end Technology

Vaadin Framework

TypeScript

CSS

JavaScript

Back-end Technology

Vaadin Dependency

Java

Spring Boot

MySQL

Infrastructure and Deployment

Vaadin Charts

Highcharts JS

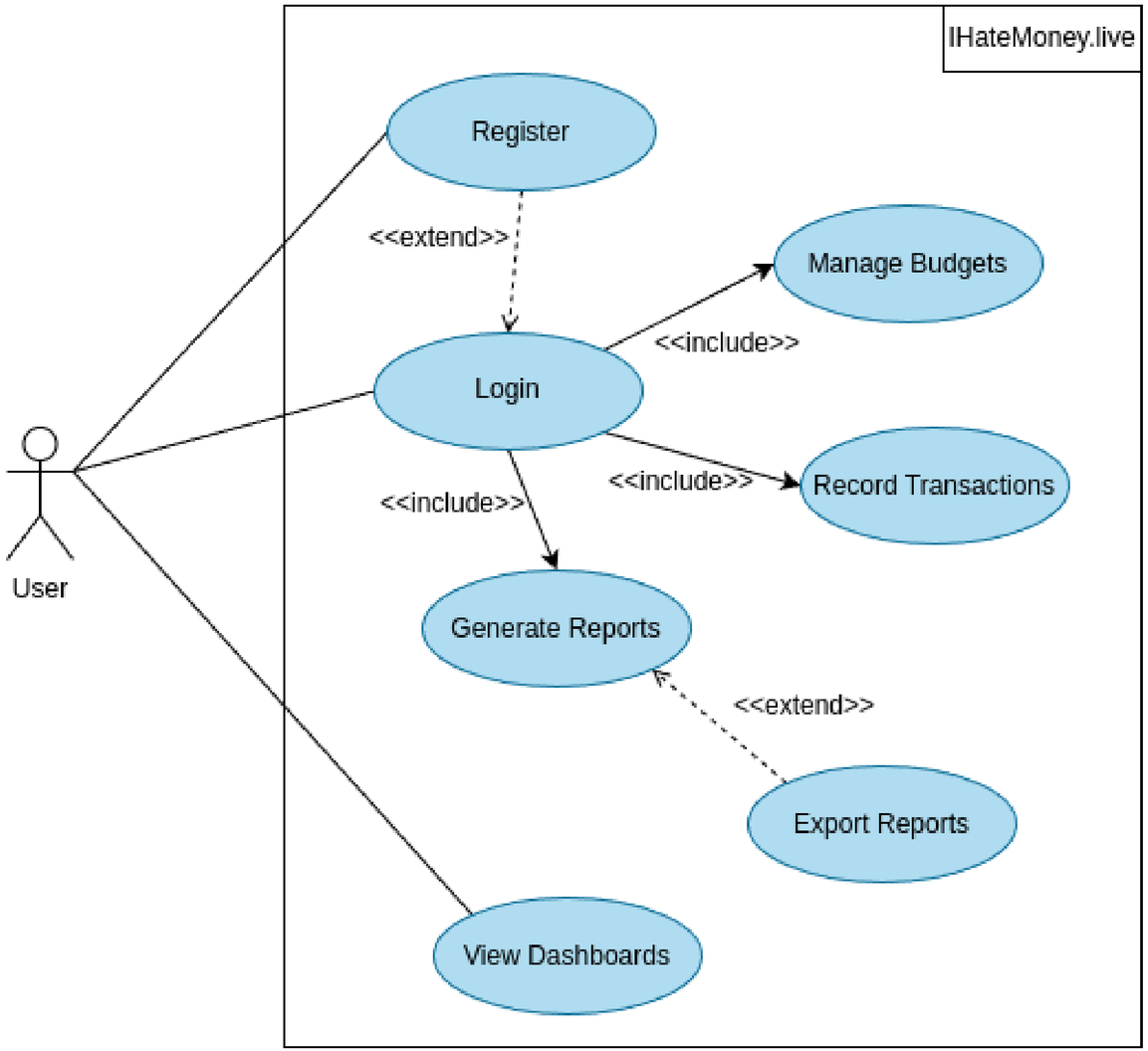
Microsoft Azure

Spring Security

03

Methodology

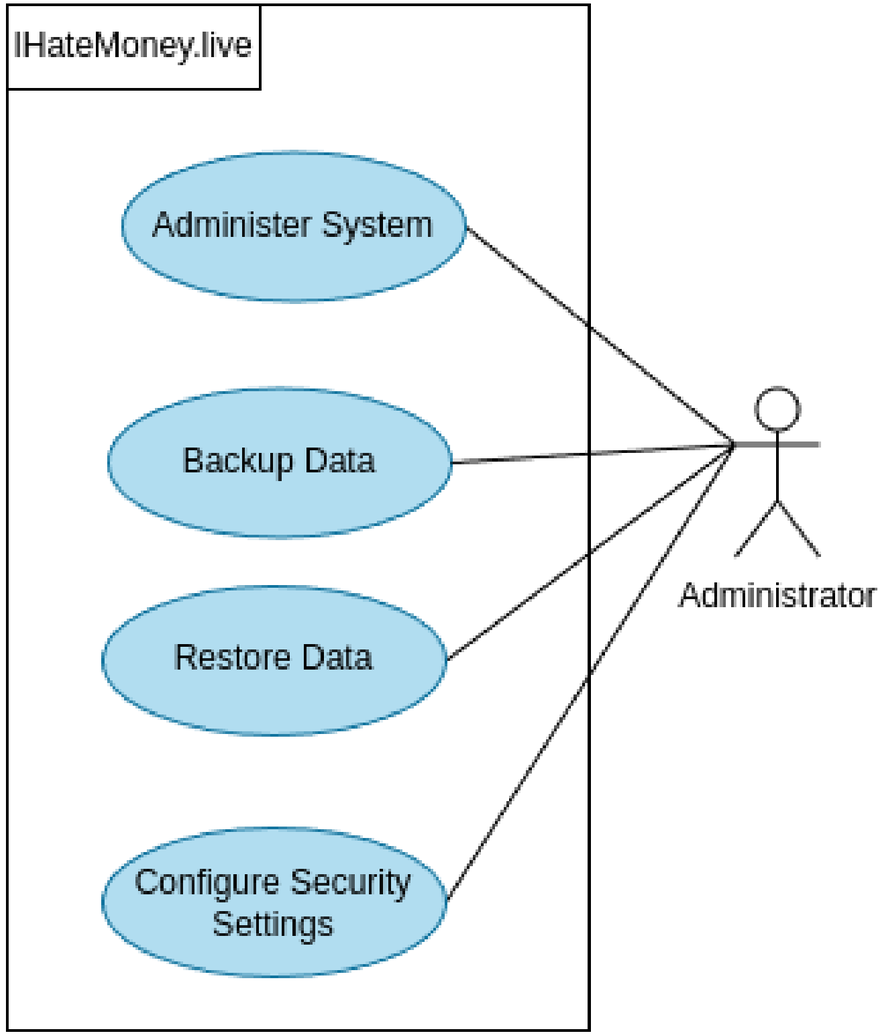
User Goal Use Case Diagram



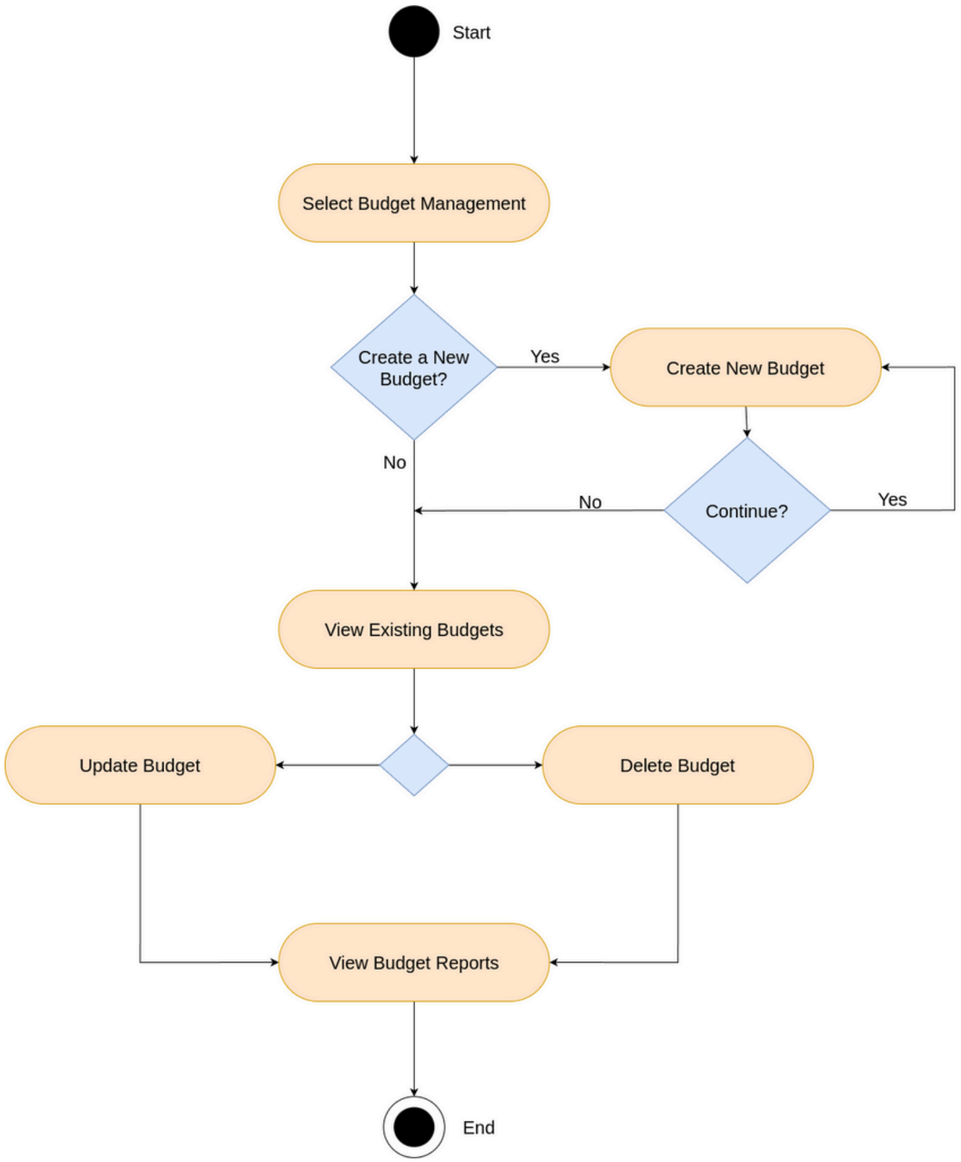
Application User

User Goal Use Case Diagram

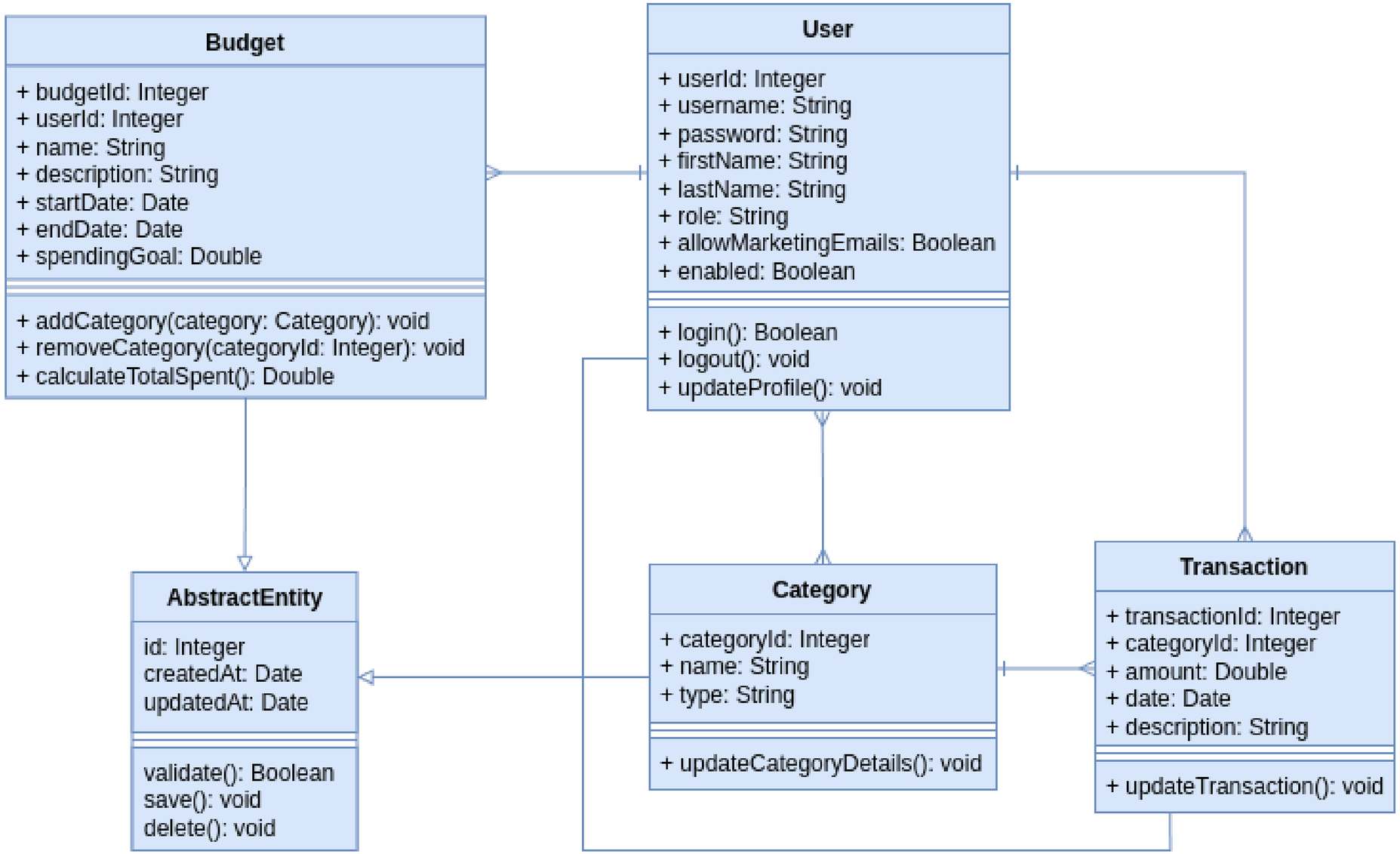
Admin User



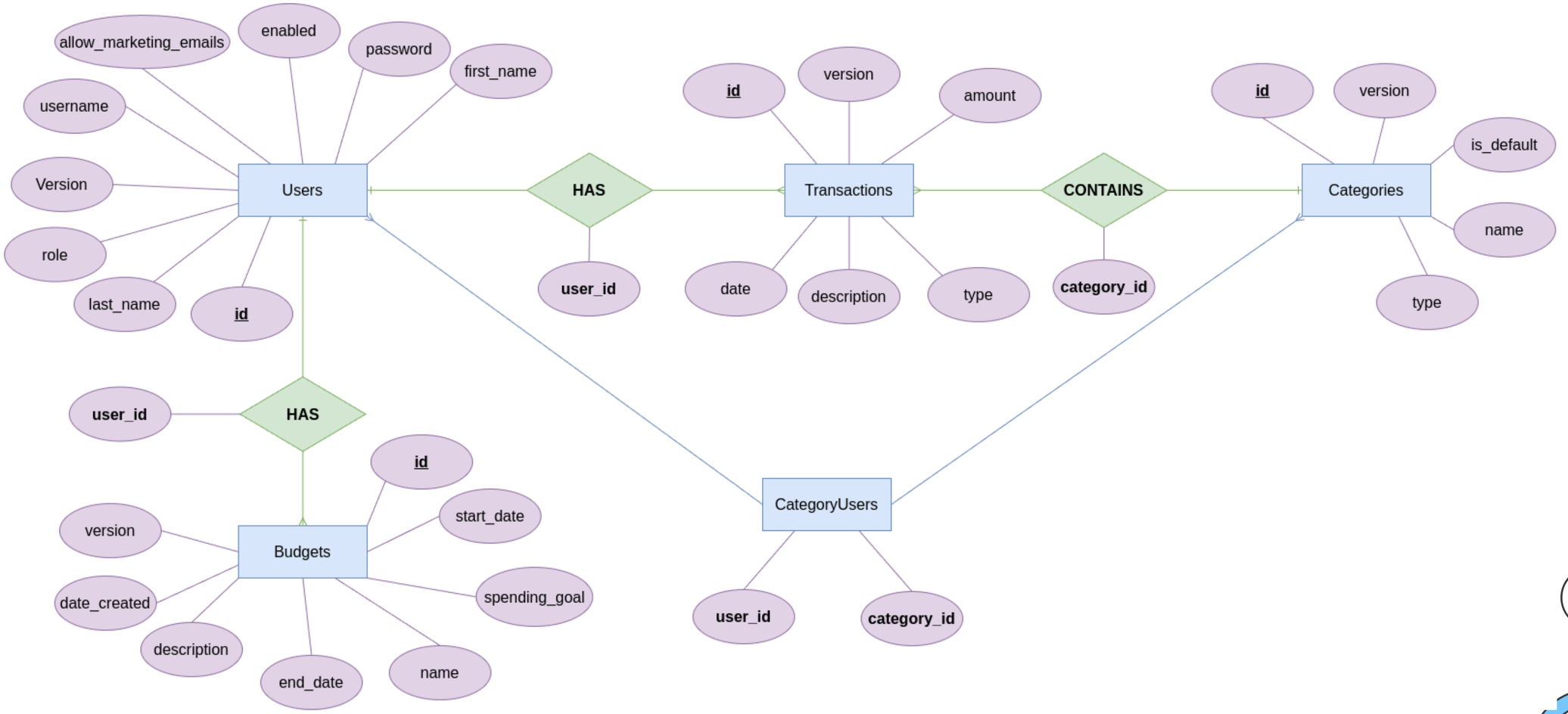
Activity Diagram



Simplified Class Diagram



ER Diagram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enabled
password
first_name
username
Version
role
last_name
id
Users
HAS
user_id
id
version
amount
date
description
type
Transactions
CONTAINS
category_id
id
version
is_default
name
type
Categories
user_id
HAS
id
version
start_date
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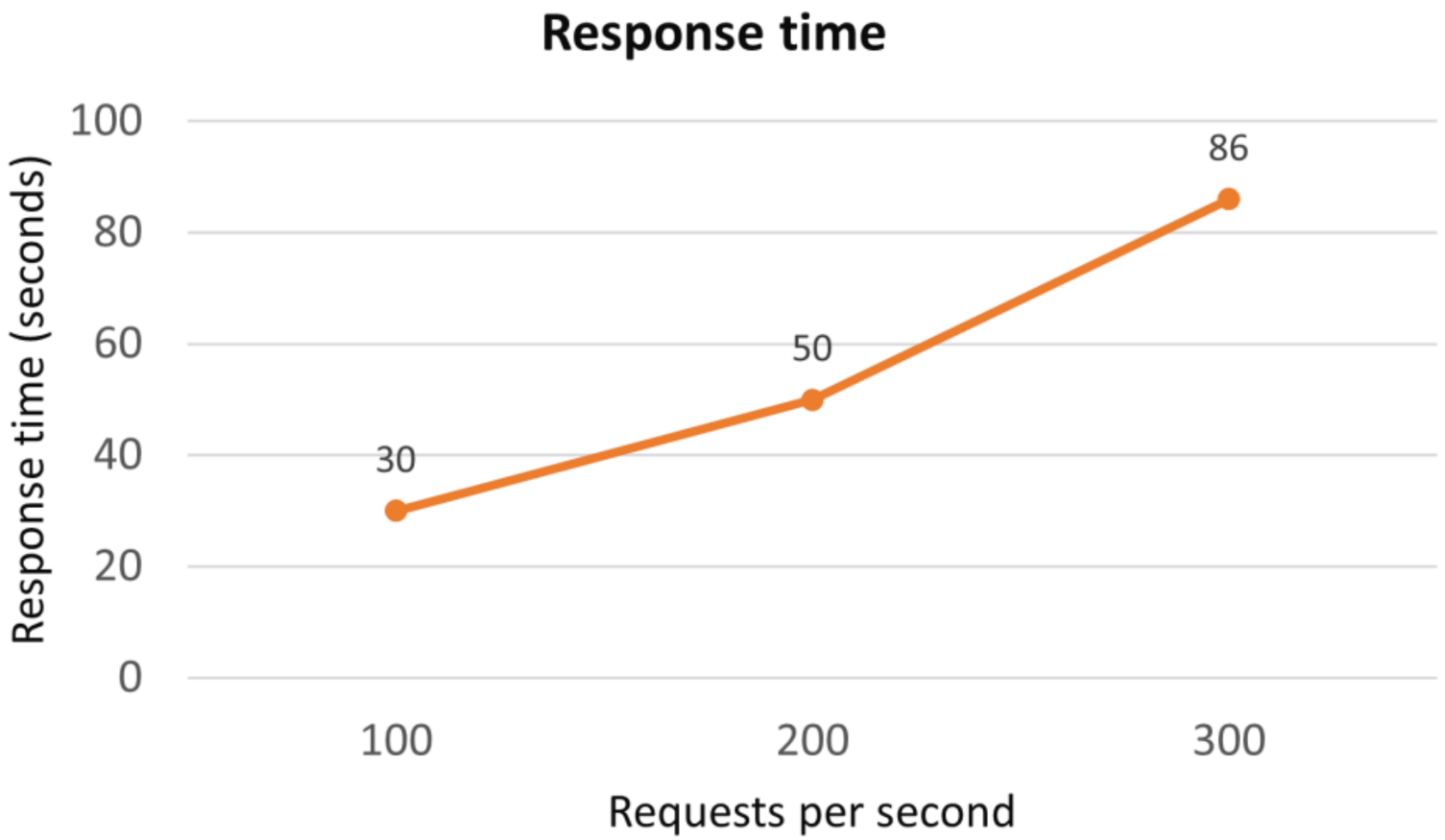
description
end_date
name
spending_goal
Budgets
CategoryUsers
user_id
category_id

04
Implementation & Evaluation

Evaluation

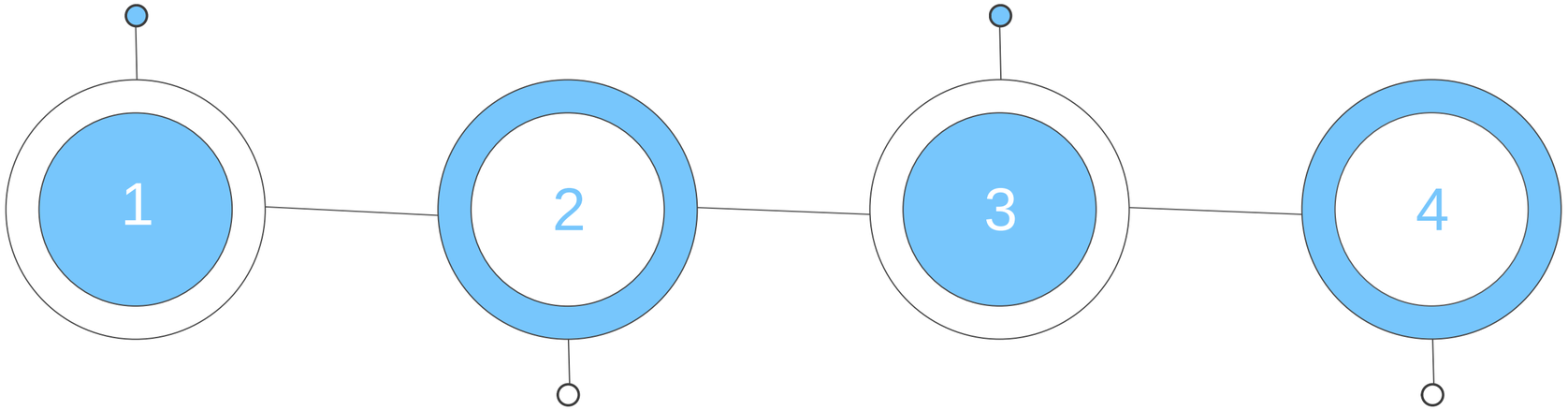

Response time
Response time (seconds)
100
80
60
40
20
0
30
50
86
100
200
300
Requests per second

05
Discussion & Future Work

Discussion

User-friendly platform

Some reports of slow load times



Integrated budget tracking and reporting functionalities

Need for scalability planning

Future Works - Short-Term Goals

Performance Improvements

Optimize database queries

Feature Enhancements

Add customizable and savable budget templates

Security Upgrades

Upgrade encryption methods for data storage

Future Works - Long-Term Goals

Scalability

Transition to cloud services

Market Expand

Partner with financial institutions

Analytical Tools

Develop predictive analytics features

06

Conclusion

Conclusion

Empowerment Through Technology

Integrated essential features

Improved financial literacy and decision-making

References

[1] H. N. Odle-Dusseau, R. A. Matthews, and J. H. Wayne, “Employees’ financial insecurity and health: The underlying role of stress and work–family conflict appraisals,” J. Occup. Organ. Psychol., vol. 91, no. 3, pp. 546–568, Sep. 2018, doi: 10.1111/joop.12216.

Thanks!

for paying attention