

Trackr - Iteration 1

Presentation / Demo

BU MET CS 673 (Summer 1 2022)

Group 1: Jean Dorancy, Timothy Flucker, Xiaobing Hou, Weijie Liang

Outline

- Project Overview
- Project Architecture
- Development Completed this Iteration
- Testing Overview
- Unit Testing Coverage Report
- Deployment Overview
- Next Steps

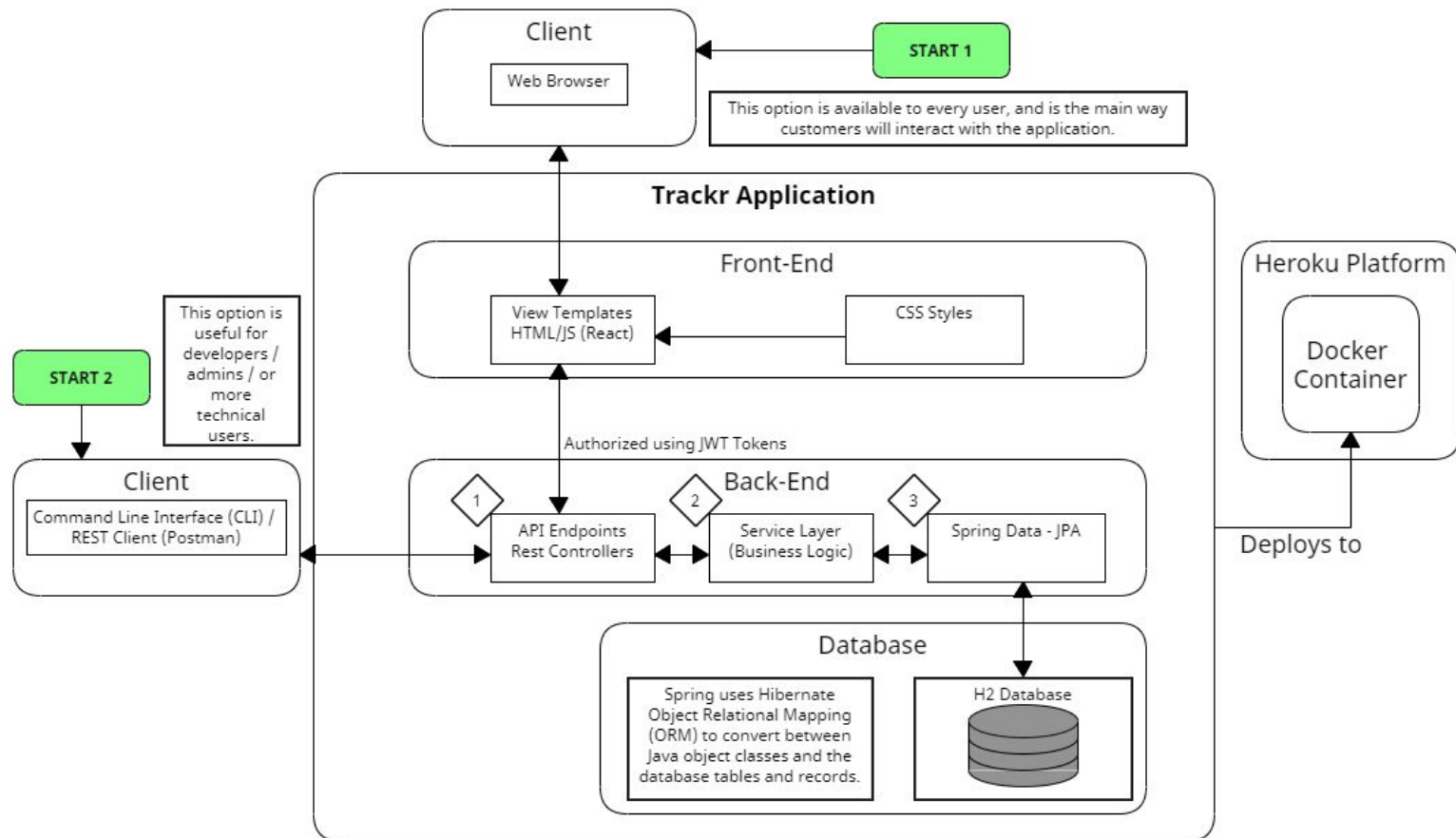


High Level Project Overview

- **Description:** Trackr is a an application that is meant to be an alternative to financial tracking applications such as Mint and Truebill.
- **Goal:** A way for users to view transactions against their bank accounts so that they can understand their overall financial well-being and spending behavior.
- **Implementation:**
 - Spring Boot Application for REST APIs
 - React for the frontend
 - Deployed on Heroku as Docker container
 - Postman for manual and JUnit for automated testing



Project Architecture



Development Completed

API

- User Management
 - Register new user
 - Generate new JWT Token
- Bank Account Management
 - Create new Bank Account
 - Modify Bank Account
 - Deactivate Bank Account
- Transaction Management
 - Find all Transactions
 - Find Transaction by ID
 - Create new Transaction
 - Modify Transaction
 - Deactivate Transaction

Web GUI

- User Registration Page
- User Login Page
- Home Page

Configuration

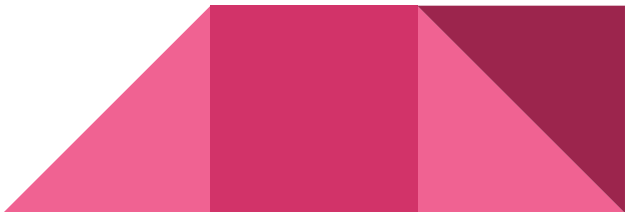
- Dockerize App
- Deployment w/ GitHub Integration
 - Development
 - Production
- JavaScript Code Sniff Pipeline

Testing Overview

Automated

- JUnit5 and Mockito used for Unit tests
 - 41 tests
 - 8 test classes

Manual

- Postman
 - Shared Postman collection (saved in the project repository)
 - Web GUI
 - Create user account
 - Login with valid credentials
 - Test invalid scenarios (invalid credentials/existing username)
- 

Unit Testing Coverage Report

Current scope: all classes

Overall Coverage Summary

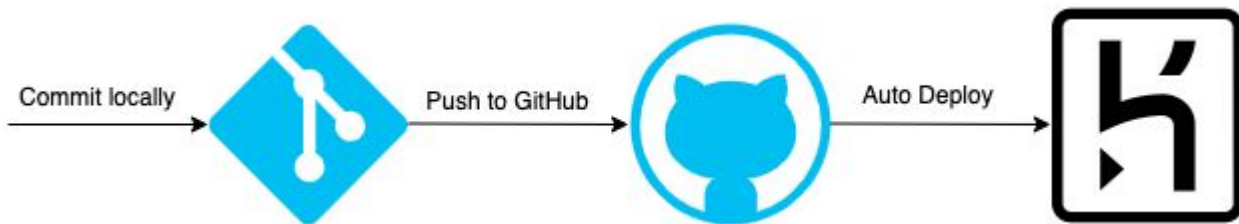
| Package | Class, % | Method, % | Line, % |
|-------------|---------------|-----------------|-----------------|
| all classes | 88.9% (24/27) | 76.1% (105/138) | 63.2% (177/280) |

Coverage Breakdown

| Package ▲ | Class, % | Method, % | Line, % |
|---|-------------|---------------|---------------|
| edu.bu.metcs673.trackr | 100% (1/1) | 66.7% (2/3) | 66.7% (2/3) |
| edu.bu.metcs673.trackr.api | 83.3% (5/6) | 81.4% (35/43) | 81.4% (35/43) |
| edu.bu.metcs673.trackr.common | 33.3% (1/3) | 16.7% (1/6) | 18.2% (2/11) |
| edu.bu.metcs673.trackr.controller | 100% (5/5) | 59.1% (13/22) | 47.4% (36/76) |
| edu.bu.metcs673.trackr.domain | 100% (6/6) | 88.9% (32/36) | 77.6% (45/58) |
| edu.bu.metcs673.trackr.security | 100% (3/3) | 60% (6/10) | 31.4% (11/35) |
| edu.bu.metcs673.trackr.service.impl | 100% (3/3) | 88.9% (16/18) | 85.2% (46/54) |

Deployment Overview

- Commit locally
- Push to GitHub
- Open PR
 - Checks
 - Feedback
 - Approval
- Merge
 - Merges to **main** and **development** branches trigger auto deploy
 - Any other branch **manual** with Heroku deploy tool
- App is deployed as a Docker container to Heroku

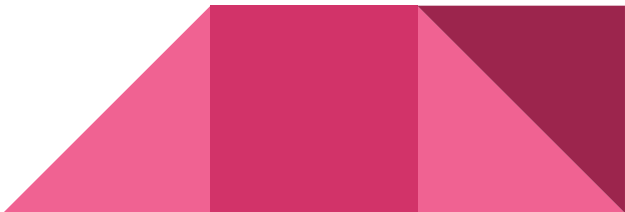


Next Steps

- Dashboard Page
- All Accounts Page
- User Profile Page
- Refactoring
- Security
 - SQL Injection
 - Cross-Site Scripting
 - Session Management
 - HTTPS Connection

Trackr [Dashboard](#) [Accounts](#) [Profile](#) [Logout](#)

| Accounts | | Transactions | | | |
|------------------|--------|----------------------------|------------------------------|--------|------|
| Savings | \$500 | <div>Add transaction</div> | | | |
| Ally Financials | | Date | Description | Amount | |
| Joint Checking | \$2700 | May 29, 2022 | Dominoes Pizza | \$20 | Edit |
| Ally Financials | | May 28, 2022 | Kappys Fine Wine and Spirits | \$35 | Edit |
| Primary Checking | \$150 | May 27, 2022 | Sweet Greens | \$12 | Edit |
| Citizens Bank | | | | | |
| Total Cash | \$3350 | | | | |



Demo Content

- API Demo (Postman)
 - Create user
 - Retrieve new token
 - Create Bank Account
- Web GUI deployed to Heroku Demo
 - User Registration
 - User Login
- Show automated test
 - Mockito



Let's figure out together where your money goes.



trackr

Thank You!

First name

Last name

Username

Email address

Password

Sign Up!