

# Trackr - Iteration 1

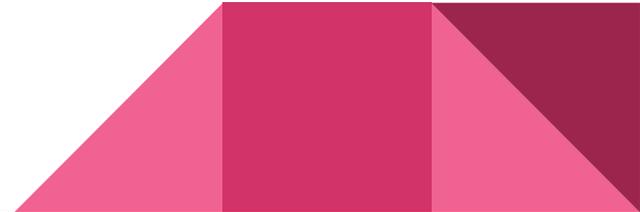
## Presentation / Demo

BU MET CS 673 (Summer 1 2022)

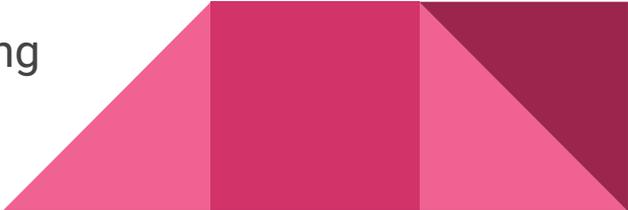
Group 1: Jean Dorancy, Timothy Flucker, Xiaobing Hou, Weijie Liang

# Outline

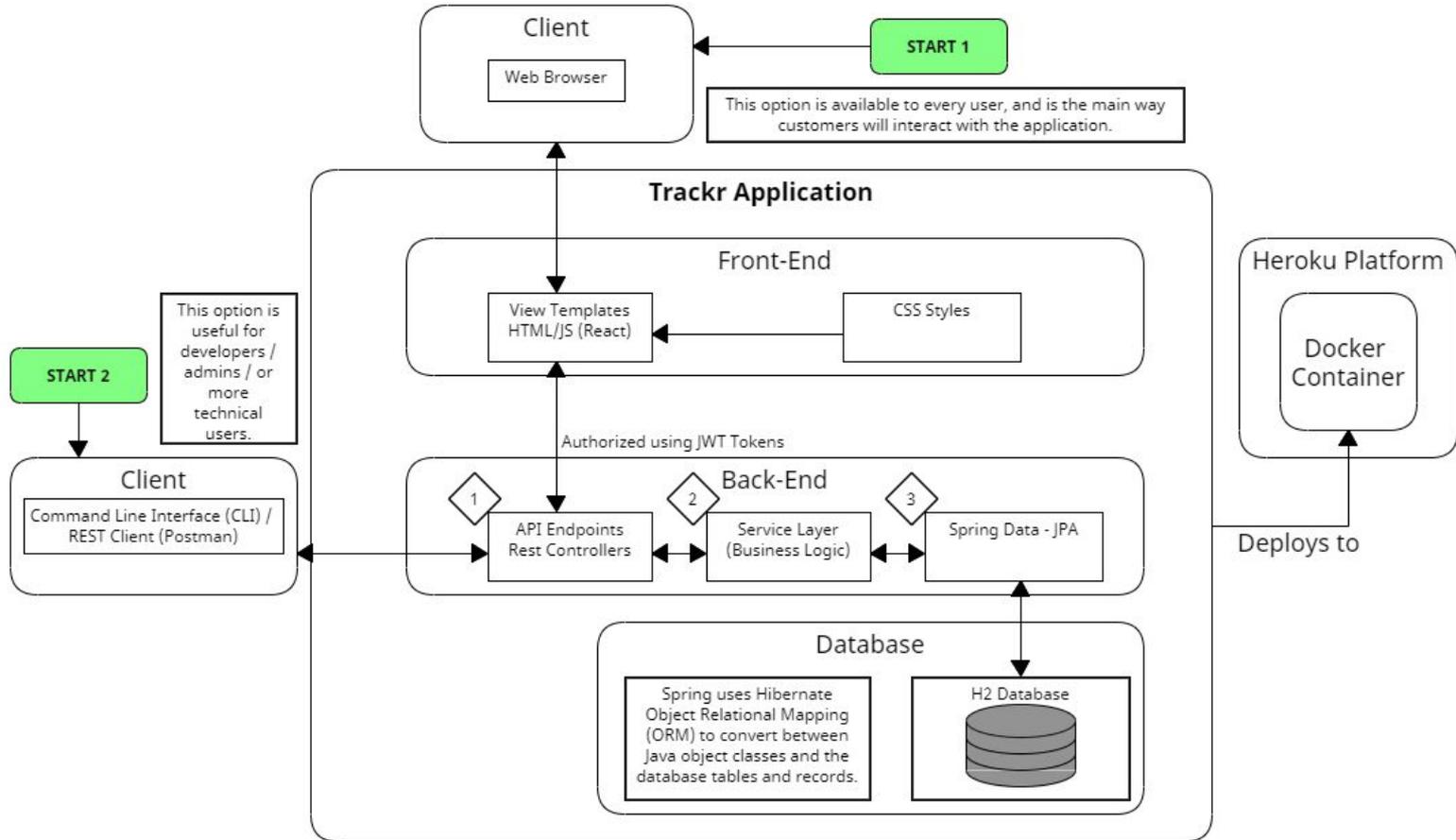
- Project Overview
- Project Architecture
- Development Completed this Iteration
- Testing Overview
- Unit Testing Coverage Report
- Deployment Overview
- Next Steps



# 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

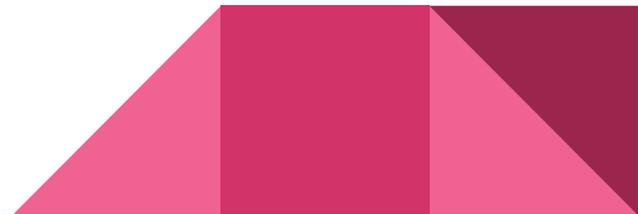
# Testing Overview

## 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

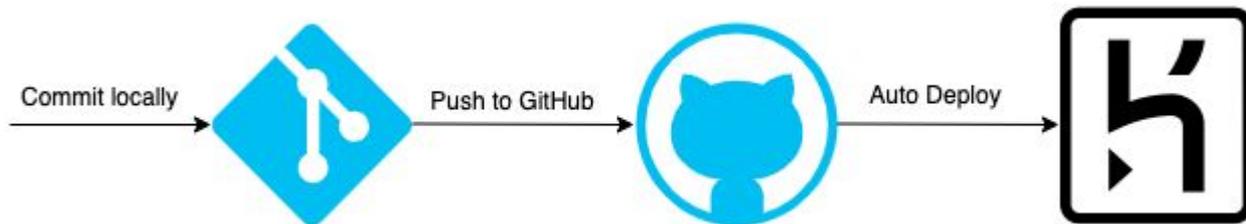
Package	Class, %	Method, %	Line, %
all classes	88.9% (24/27)	76.1% (105/138)	63.2% (177/280)

## Coverage Breakdown

Package ▲	Class, %	Method, %	Line, %
<a href="#">edu.bu.metcs673.trackr</a>	100% (1/1)	66.7% (2/3)	66.7% (2/3)
<a href="#">edu.bu.metcs673.trackr.api</a>	83.3% (5/6)	81.4% (35/43)	81.4% (35/43)
<a href="#">edu.bu.metcs673.trackr.common</a>	33.3% (1/3)	16.7% (1/6)	18.2% (2/11)
<a href="#">edu.bu.metcs673.trackr.controller</a>	100% (5/5)	59.1% (13/22)	47.4% (36/76)
<a href="#">edu.bu.metcs673.trackr.domain</a>	100% (6/6)	88.9% (32/36)	77.6% (45/58)
<a href="#">edu.bu.metcs673.trackr.security</a>	100% (3/3)	60% (6/10)	31.4% (11/35)
<a href="#">edu.bu.metcs673.trackr.service.impl</a>	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

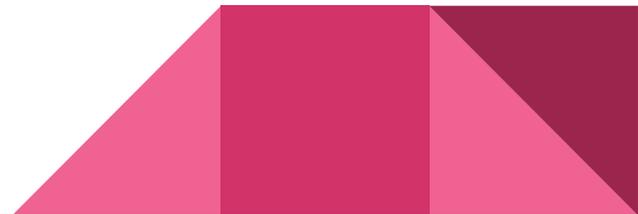
### Accounts

Savings	\$500
Ally Financials	
Joint Checking	\$2700
Ally Financials	
Primary Checking	\$150
Citizens Bank	
<b>Total Cash</b>	<b>\$3350</b>

### Transactions

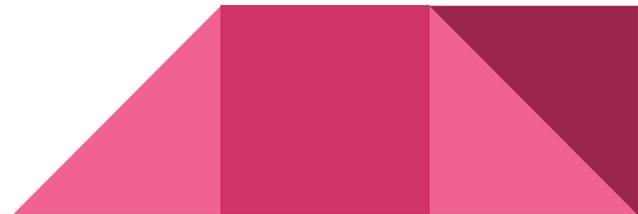
Add transaction

Date	Description	Amount	
May 29, 2022	Dominoes Pizza	\$20	Edit
May 28, 2022	Kappys Fine Wine and Spirits	\$35	Edit
May 27, 2022	Sweet Greens	\$12	Edit



# 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!