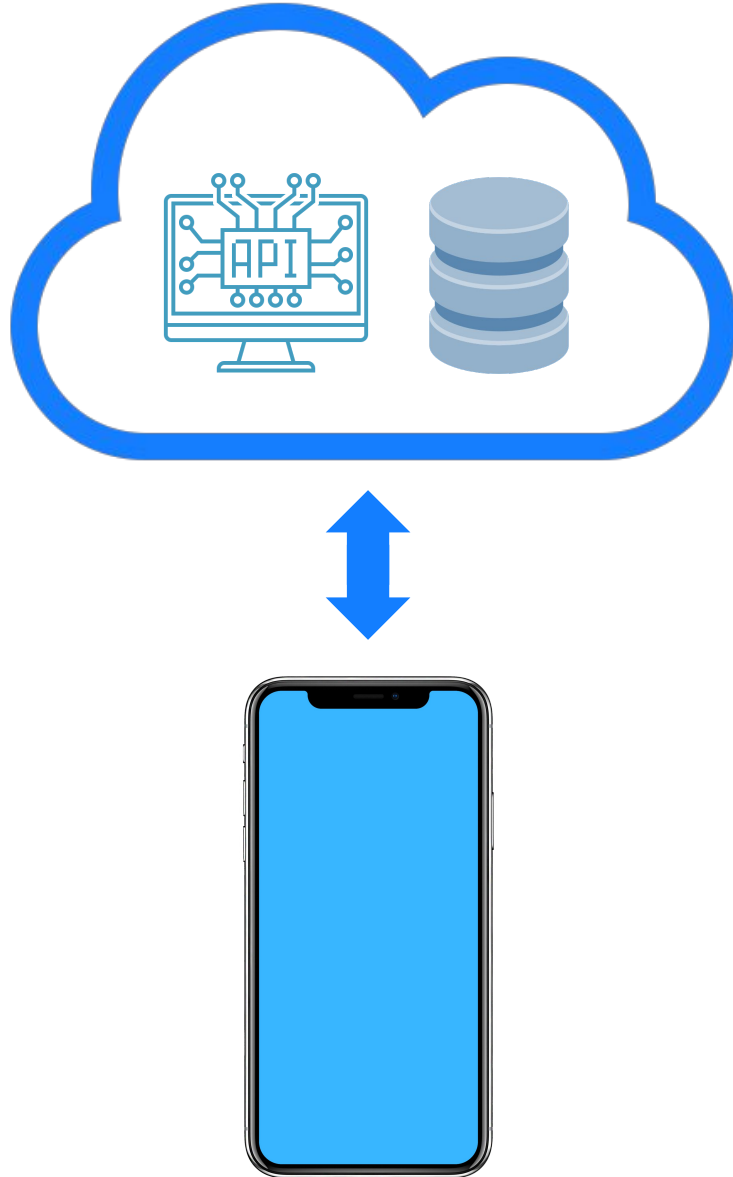# Payday Trade

Background:
Payday bank is implementing brand new Trading solution. The customer's now should be able to purchase stocks from partner brokers through their bank account.

For the MVP you will be expected to develop the user stories provided in an agile and incremental manner. This means that you should prioritize related user stories that can be implemented completely within a sprint

Task:
- Implement rest APIs given in the user stories
- Create necessary artifacts to run application locally
- Follow coding standards and best practices
- Provide at least 80% unit test coverage
- Nice to have integration tests
- The application must be highly scalable
- Provide artifacts to deploy the application to kubernetes cluster
- Provide proper isolation mechanism for test and prod envs. assume we will deploy the application to the same kubernetes cluster and use namespaces as to isolate each env.

Notes:
- Use the programming language that is required by the position you are applying
- Feel free to add any additional dependencies that you need to build your solution, including deciding on the type of database system that you'd like to use in your solution

User Stories

SIGN UP
As a potential enterprise customer **I want** to sign up to create my organization profile
So that I can organize my staff on the platform

Acceptance Criteria:
1. Open to anyone who has access to the app
2. Enter user name, email and password
3. The user will receive an activation link in the email. Once the link is clicked, the account should be active

Note: Those details are enough to open an account in the system. There is no additional process to approve your account.

SIGN IN
As a user,
I want to sign into the system
So that I can access my customer profile details

Acceptance Criteria:
1. Only allow passwords with 6 or more alphanumeric characters

LIST STOCKS
As a user, I need to see all stocks that I can buy with the latest price.

Acceptance Criteria:
1. The user logs in organization
2. The user lists available stock symbols with the current price

Note: You are free to choose any stock exchange api that sends real time stock prices, or create a mock service that creates stock fluctuations based on time.

DEPOSIT CASH
As a user,
I want to load cash into my account

Acceptance Criteria:
1. The user logs into his account, and deposits any amount he wishes to his cash balance.

Note: Just create any api that allows to increase account cash balance by the amount provided by the user in the input.

PLACE AN ORDER
As a user, I should be able to place buy and sell orders in the external exchange.

Acceptance Criteria:
1. The user creates a buy/sell order with a target price
2. The system fills the order as soon as the stock price is reached to the order price

Note: E.g. buy 100 TSLA shares with target price 200$. The order should be filled when the price is equal or under 200$. Same way, sell AAPL for 200$, the order will be filled when the TSLA price is equal or more than 200$. You should update account cash balance on each operation. Please take into account that external system is unreliable.

EMAIL NOTIFICATION
As a user I want to receive an email when a order is filled

Acceptance Criteria:
1. User should receive an email when the BUY/SELL orders he places in the exchange are filled