TQS Deliveries

97673 Pedro Duarte
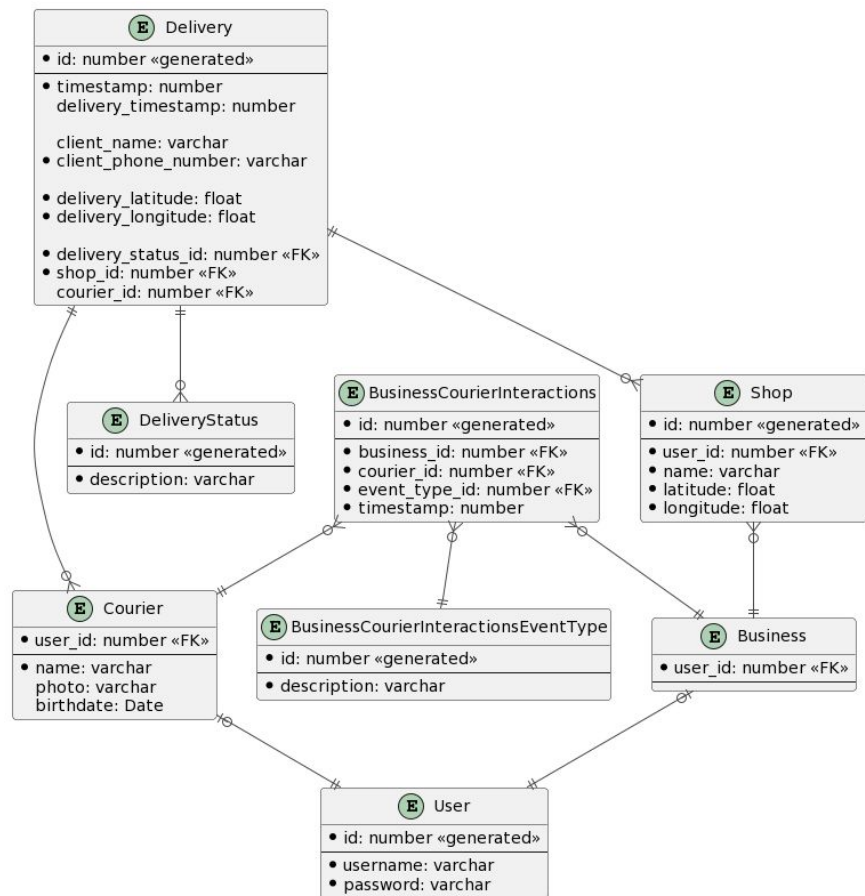97505 Alexandre Serras

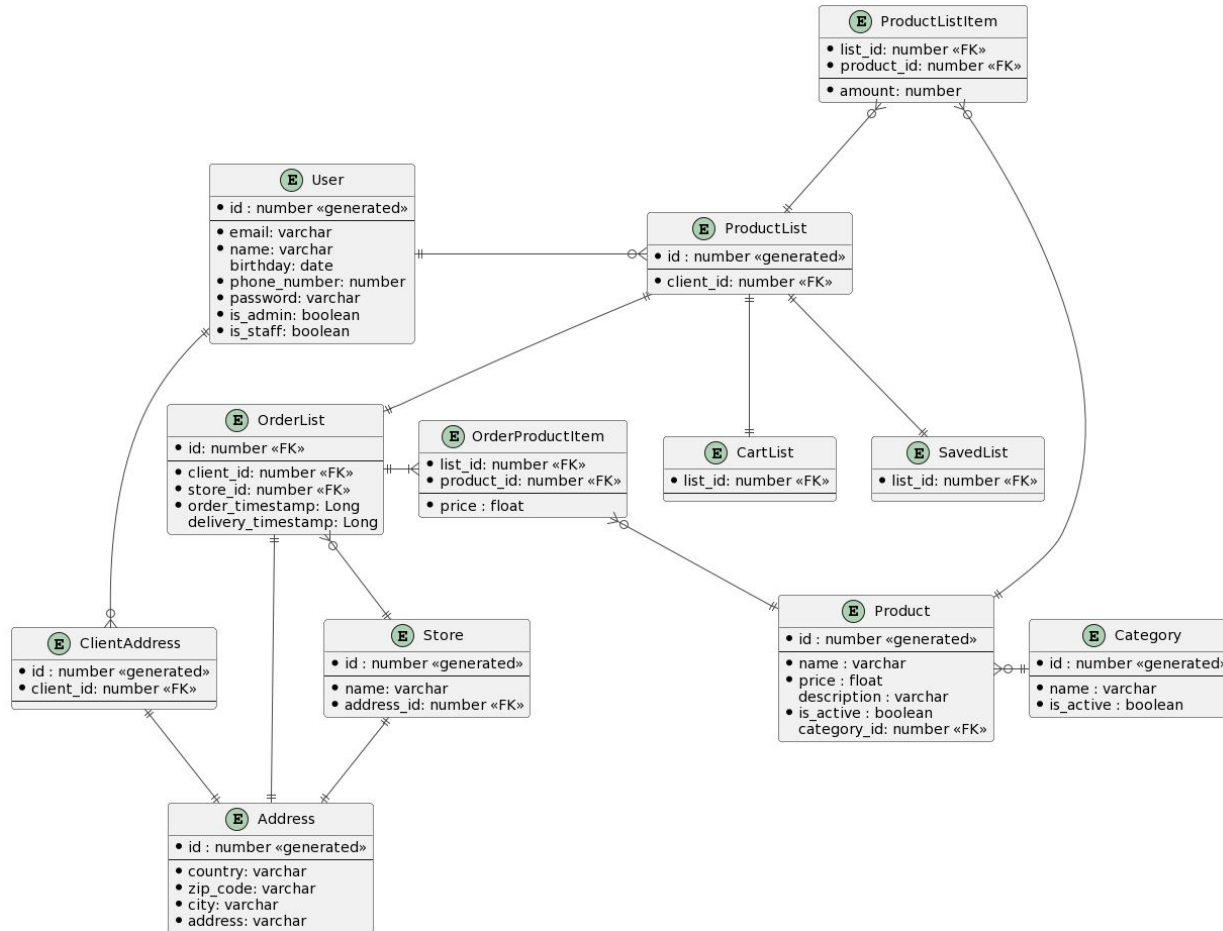# 01 Product Concept

Product Concept

Generic Deliveries' Platform

- Businesses implement this API in their websites
- Couriers deliver pending deliveries
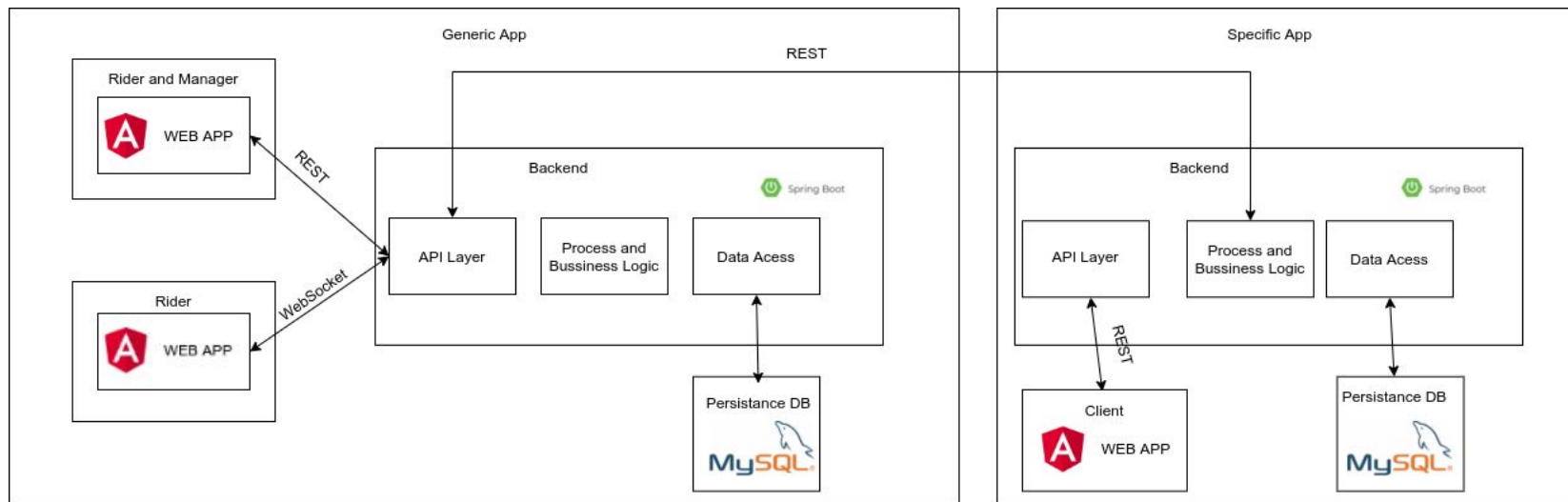- Authorization mechanisms for deliveries (Apply, Accept, Block, Refuse)

Coviran's Online Shop

- Product search and filtering
- Product lists management - carts, orders, stored lists

Delivery

- id: number «generated»

- timestamp: number
  delivery_timestamp: number

  client_name: varchar
- client_phone_number: varchar

- delivery_latitude: float
- delivery_longitude: float

- delivery_status_id: number «FK»
- shop_id: number «FK»
  courier_id: number «FK»

DeliveryStatus

- id: number «generated»

- description: varchar

BusinessCourierInteractions

- id: number «generated»

- business_id: number «FK»
- courier_id: number «FK»
- event_type_id: number «FK»
- timestamp: number

Shop

- id: number «generated»

- user_id: number «FK»
- name: varchar
- latitude: float
- longitude: float

Courier

- user_id: number «FK»

- name: varchar
  photo: varchar
  birthdate: Date

BusinessCourierInteractionsEventType

- id: number «generated»

- description: varchar

Business

- user_id: number «FK»

User

- id: number «generated»

- username: varchar
- password: varchar

Architecture

02 CI/CD

CI/CD - Github Actions

Push to *dev*

- Run Tests
- Run SonarQube
- Deploy to development environment
- Run linter

GitHub Actions

CI/CD - Github Actions

Push to *main*

- Run Tests
- Run SonarQube
- Deploy to production environment
- Run linter

CI/CD - Github Actions

Push to *other API related branches*

- *Run Tests*

03 Quality Assurance

Software Quality Assurance Strategy

Our exceptions:

Exception Name	Meaning
BadLocationException	Invalid latitude or longitude
BadPhoneNumberException	Invalid phone number
UserAlreadyAssignedException	Email already registered

Post requests' bodies are passed through DTO classes instead of using Spring Boot's entity classes

Tests sintaxe :   testWhen<Action><ClassName>ThenReturn<ReturnObject>

SQA Strategy

Conditions ⓘ

Conditions on New Code

Conditions on New Code apply to all branches and to Pull Requests.

Metric	Operator	Value
Coverage	is less than	80.0%
Duplicated Lines (%)	is greater than	3.0%
Maintainability Rating	is worse than	A
Reliability Rating	is worse than	A
Security Hotspots Reviewed	is less than	100%
Security Rating	is worse than	A

SQA Strategy- Tests

Behaviour-Driven Development

- User stories defined using Cucumber
- Functional/Acceptance Testing through Selenium

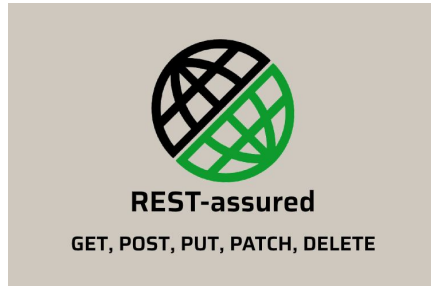# SQA Strategy- Tests

Test-Driven Development

- ○ Red, Green, Refactor Approach
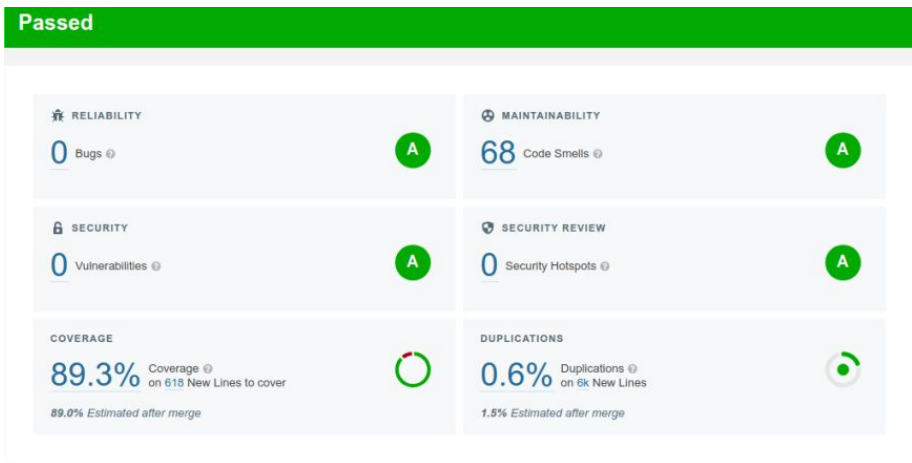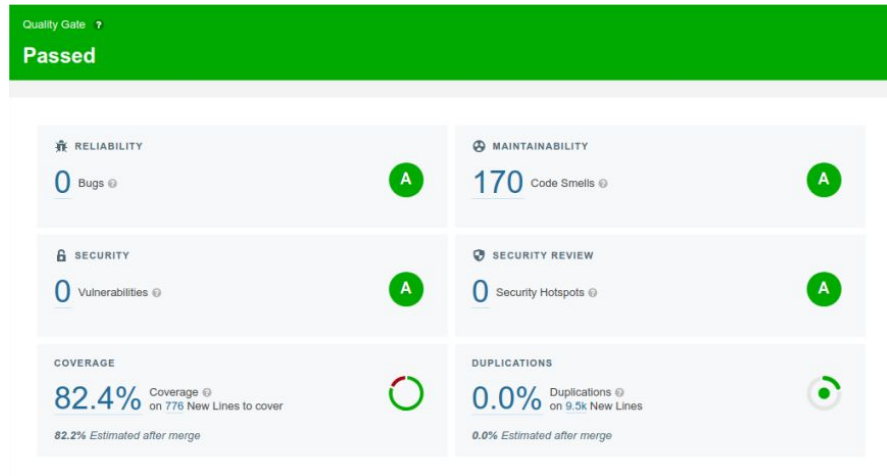- ○ Unit Testing

Integration Testing

SQA Strategy - Technologies

Test Results

Delivery API

Coviran API

VM Monitoring

Monitorization using:

- Prometheus
- Prometheus' Node Exporter
- Grafana

Allowed us to know if connection errors were provenient from:

- Network errors (VPN malfunction)
- Code errors (Unhealthy servers)
- VM performance (Too many services running on the same machine)

Github Workflows

Development via branches:

- **Feature** branches - Develop new features
- **Bug** branches - Hot fixes
- **Refactor** branches - Clean the code

Github Workflows

Pull Requests

- Requires a review from another team member
- Protects branches with CD from errors in the development branches

04 Team Management

Backlog

- Task Assignment
- Feature Progression
- Milestones (Sprints and Sprint Points)
- Documentation for development

05 Demo