



TQS – Group project

Final presentation – 5/06/2025

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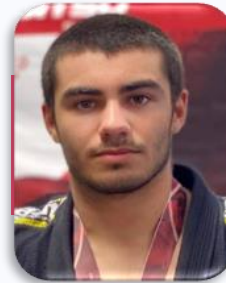


Team



QA Engineer

and developer



Product Owner

and developer



Team coordinator

and developer



Enrollment process

You can describe the topic of the section here

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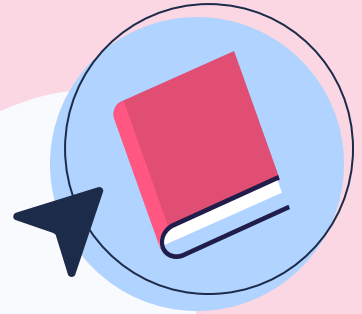
Conclusion



01

Introduction

Business scenario and core value proposition



Introduction

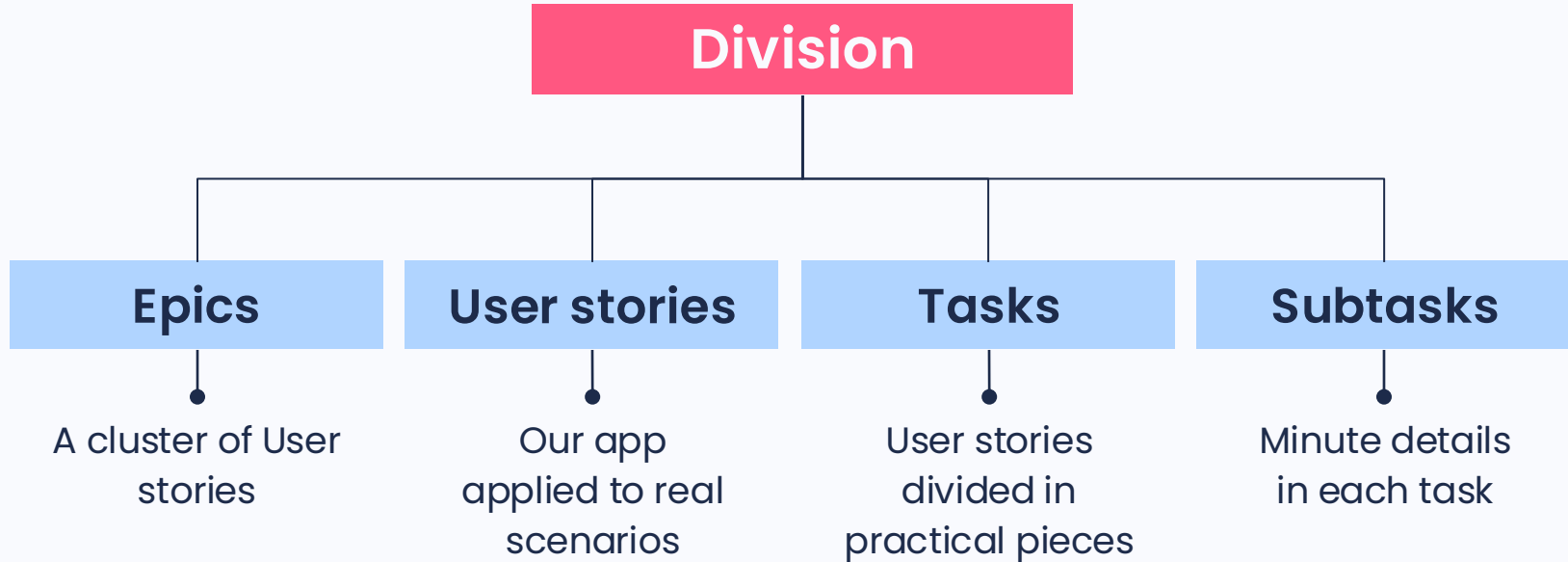


In this project we we're proposed to make a full stack application and apply principles learned in the course of TQS with a main focus on tests, and also for this project, coordination and management.

Product concept:

We're "PowerNest", and we want to offer people, a quick and easy way for them to charge their electric cars.

Introduction

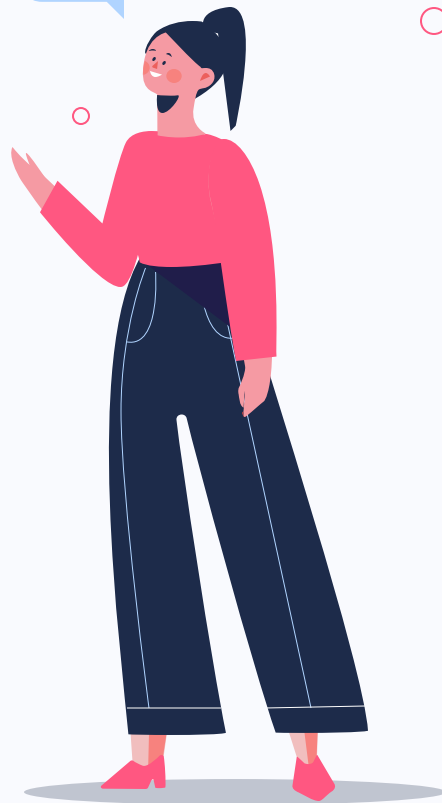


○ User Story – examples

As a charging station operator, I want to register a new station on the platform, so that it's visible to drivers and I can start offering my charging services

As an electric vehicle driver, I want to search for nearby charging stations to easily find where to recharge my car when the battery is low.

As an electric vehicle driver, I want to book a time slot at a charging station in advance to ensure that I will have a charging point available when I arrive, especially at peak times or long trips.



Main features

User

- Book a reservation ✓
- Start charging live ?
- Map with stations ✓
- Track consumption and recharge history ?
- Pay directly through the app ✗

Operator

- Create, delete, edit, charging stations ✓
- Turn charging stations available or under maintenance ?
- Historic of usage ✗

Product development roadmap



Jira

Milestones, Epics,
timeline. Agile planning.



GitHub

Branches and
implementation



Deployment

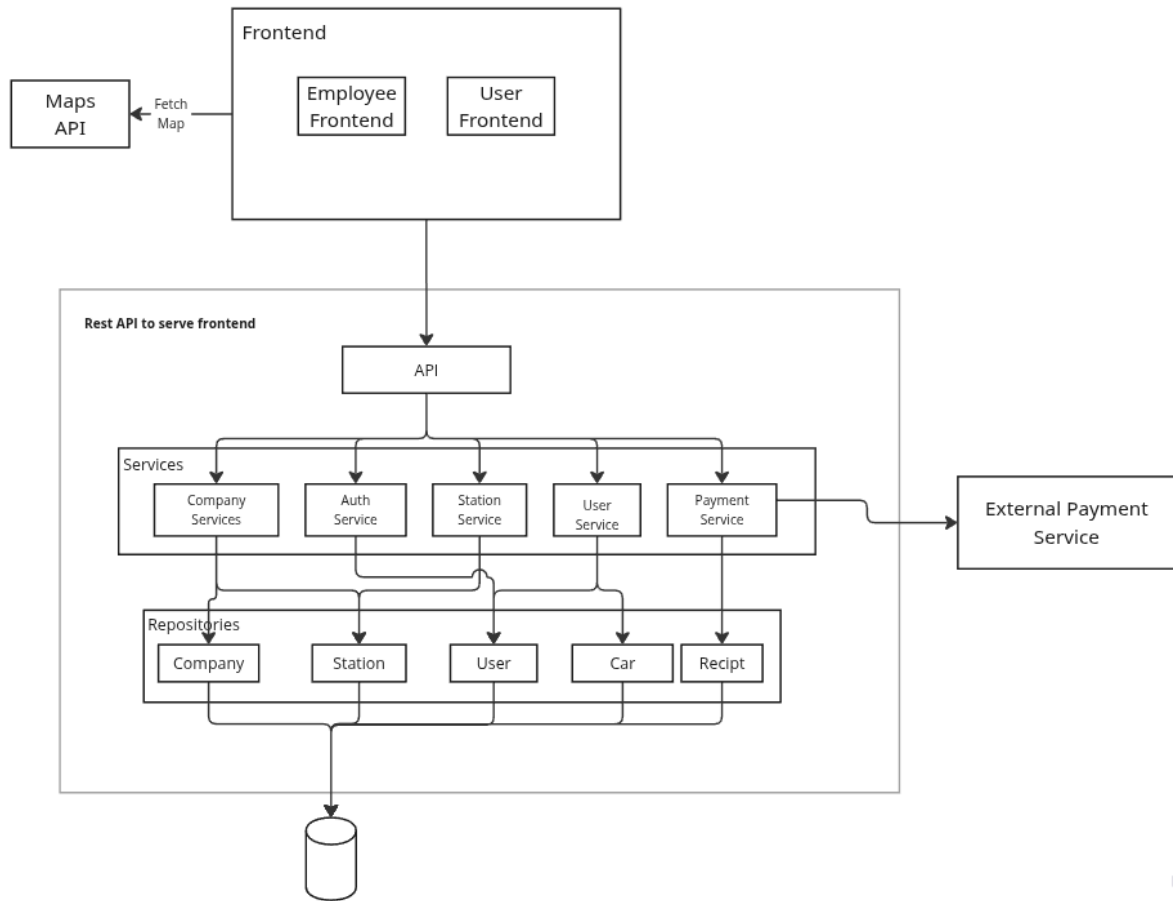
Reviewing, Merging,
Pipeline



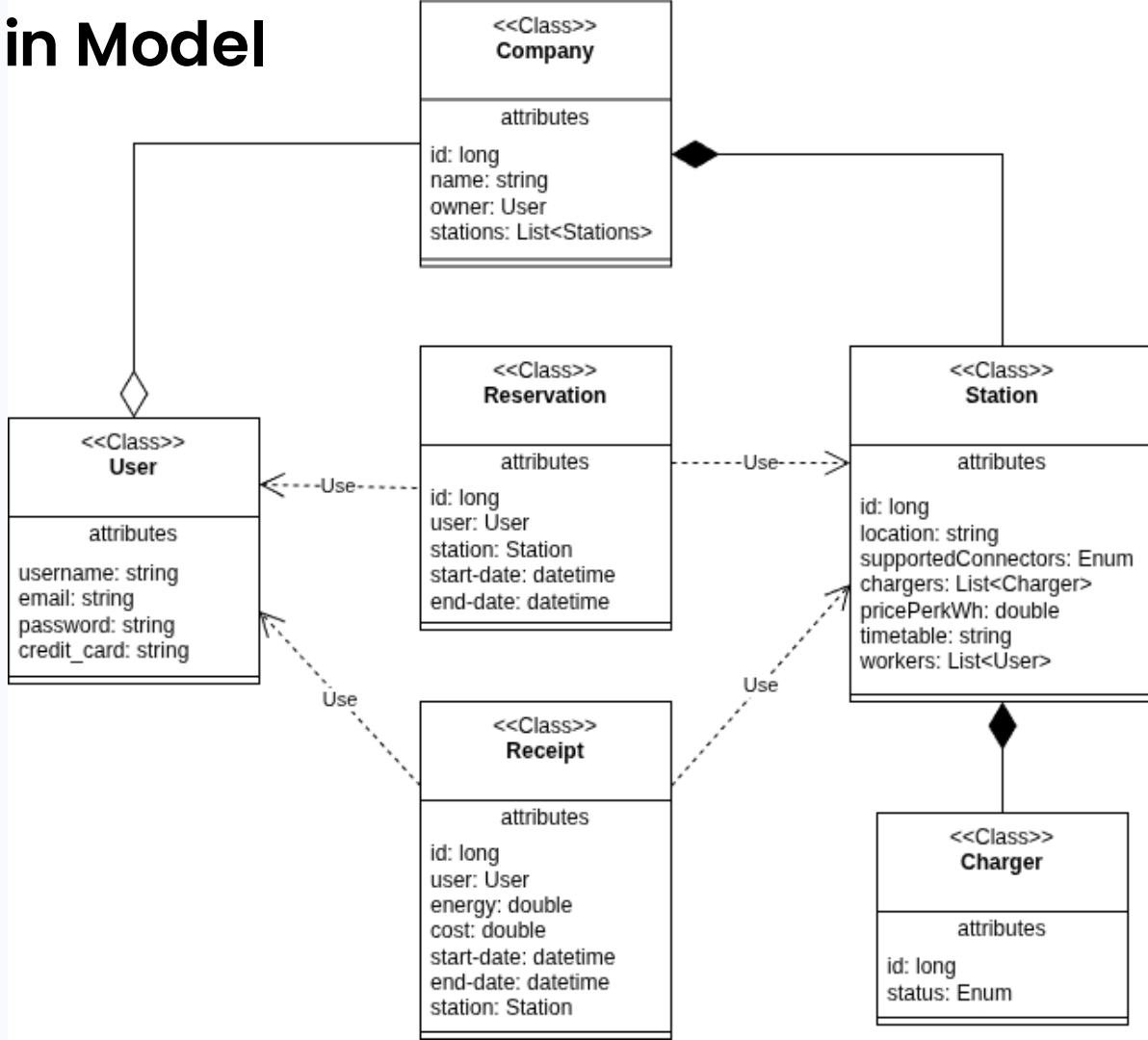
System Architecture



Architecture



Domain Model





From stories to production

Development pipeline

Workflow

The screenshot shows a Jira issue page for 'EDISON-3' with the title 'User profile, register and login'. A blue arrow points to the top left, a green arrow points to the 'Description' field, and a purple arrow points to the 'Linked work items' section. The 'Child work items' table lists six tasks, all marked as 'DONE'. The 'Details' sidebar on the right shows the assignee as 'Guilherme Ferreira Santos' and the parent issue as 'EDISON-3 Booking & Reservatio'. A yellow arrow points to the 'Assignee 2' field, and an orange arrow points to the 'MERGED' status in the 'Development' section.

EDISON-3 / EDISON-100

User profile, register and login

+ Add @ Apps

Description
Add a description...

Child work items 100% Done

T...	Key	Summary	Pr...	A...	Status
	EDISON-109	Backend - User classes and extensions	= I	GS	DONE
	EDISON-107	Backend - Jwt Config	= I	GS	DONE
	EDISON-108	Backend - Cors Update with env variables	= I	GS	DONE
	EDISON-120	Backend - Update Login Business Logic	= I	GS	DONE
	EDISON-110	Backend - Update tests that need authentication	= I	GS	DONE
	EDISON-106	Frontend - Login/Register Update	= I	GS	DONE

Linked work items +
is tested by
EDISON-124 Test if user can log-in TO DO

Confluence content 1 ... +

Details

Assignee: GS Guilherme Ferreira Santos
Assign to me

Labels: None

Parent: EDISON-3 Booking & Reservatio

Due date: None

Team: None

Sprint: Iteration 3

Story point estimate: 4

Assignee 2

Fix versions: None

Development: 1 branch, 3 commits, 1 pull request, 1 build failing

Reporter: GC Gabriel Santos

The screenshot shows a Jira issue page for 'EDISON-2' with the title 'Search for nearby charging stations'. A blue arrow points to the 'Parent' field in the 'Details' sidebar, and an orange arrow points to the 'MERGED' status in the 'Development' section.

EDISON-2 / EDISON-51

Search for nearby charging stations

+ Add @ Apps

Description
As an electric vehicle driver, I want to search for nearby charging stations to easily find where to recharge my car when the battery is low.

Acceptance criteria:

- Since I am logged in to the app and allow access to my location, when I open the search screen I should see on an **interactive map** the available charging stations nearby, with a clear indication of which ones are **free or occupied** in real time.
- The system should allow me **to filter** the stations by criteria such as connector type (e.g., **CCS**, Type 2), charging speed (slow/fast), and carrier network, displaying only the points that meet my preferences.
- When selecting a specific station on the map or list, I must view details such as address, distance, number of spaces, power offered, fares and reviews from other users.

Workflow

Projects

PowerNest_TQS ...

Summary Timeline Backlog **Board** Calendar List Forms Goals All work Development Code Security Releases Deployments More 4 +

Search board GC GS JG SA Filter Complete sprint Group +

TO DO

+ Create

IN PROGRESS 2

CD pipeline

- ☒ EDISON-98 4 2 SA

System Observability

- ☒ EDISON-132 3 2 GC

EM REVIEW 1 ...

XRAY setup correction

- ☒ EDISON-99 4 1 JG

DONE 6 ✓

Register a new charging station

[STATION REGISTRATION & EDITING](#)

- ☒ EDISON-54 ✓ 4 2 SA

User profile, register and login

[BOOKING & RESERVATION MANAGEM...](#)

- ☒ EDISON-100 ✓ 4 2 GS

Correct filters map view page

[STATION DISCOVERY & FILTERING](#)

- ☒ EDISON-104 ✓ 1 GC

Available slots -> List of chargers ...

- ☒ EDISON-105 ✓ 2 JG

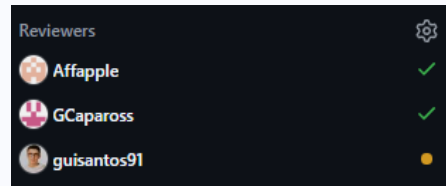
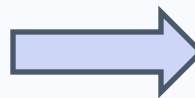
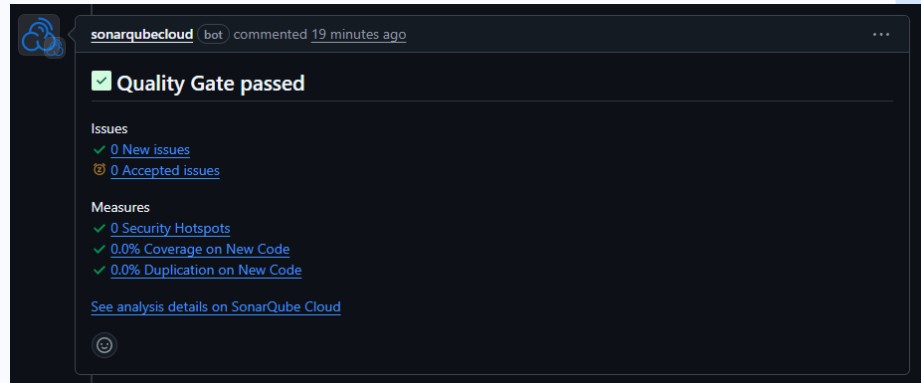
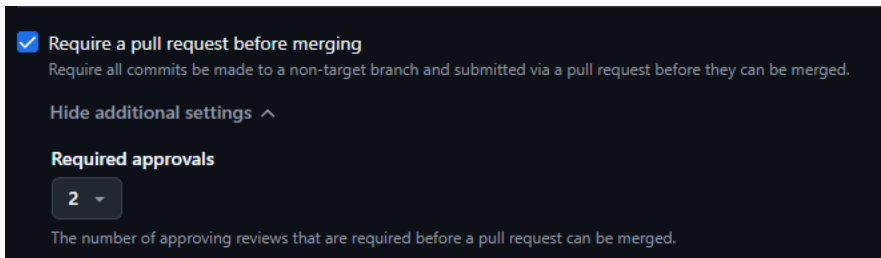
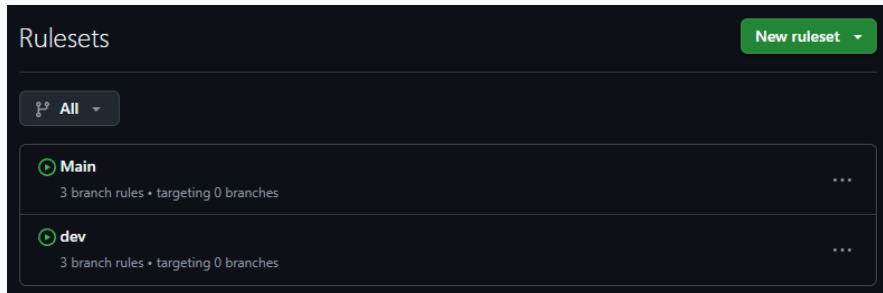
Refactor code

- ☒ EDISON-111 ✓ 5 2 SA

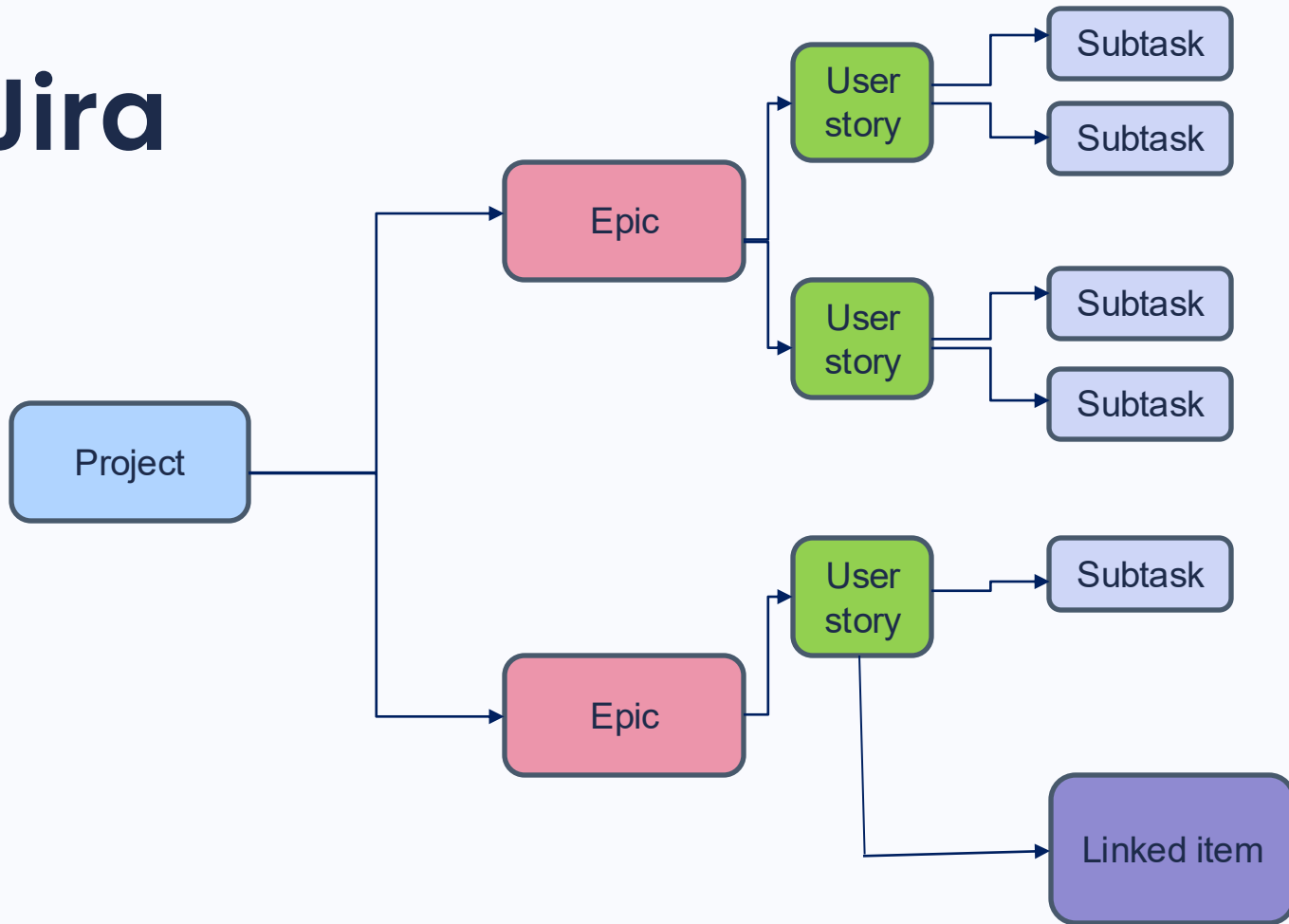
Correct CI pipeline

- ☒ EDISON-97 ✓ 3 2 JG

○ Code review

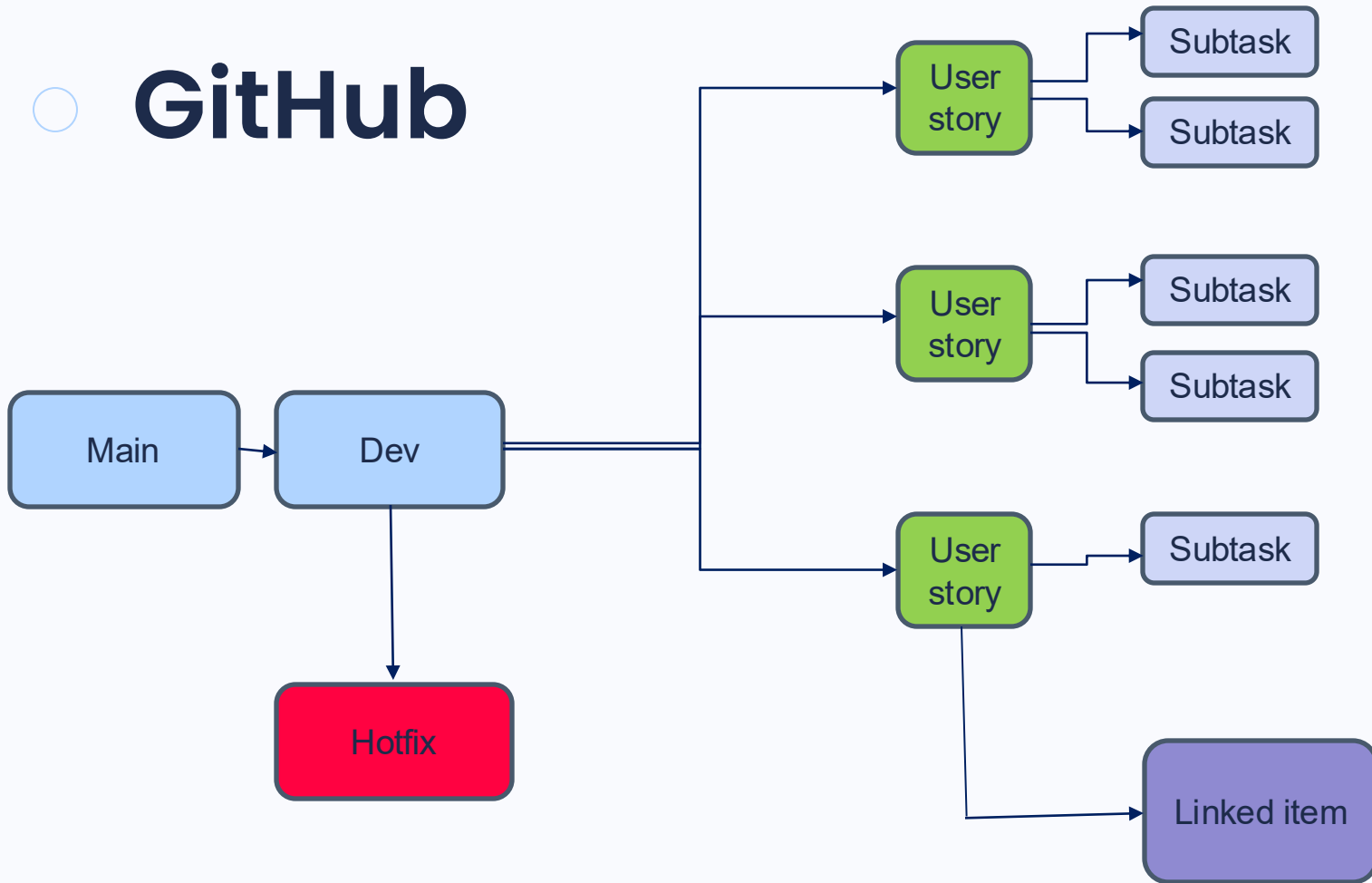


○ Jira



Is tested by - implemented by - idea for - ...

○ GitHub



Is tested by - implemented by - idea for - ...





Continuous Integration | CI

- Reduces integration problems
- Improves code quality
- Speeds up development
- Encourages smaller, more frequent updates

SonarQube





Write code

Push Git

CI Server detects change (GitHub actions)

Run automated build

Tests pass?

Yes? Merge | Deploy

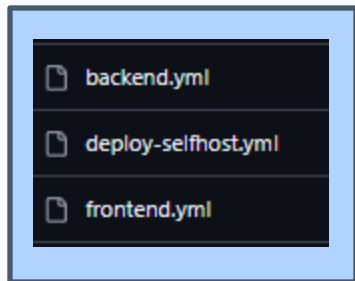
No? Notify developer

SonarCloud

Automated testing



Staging and deployment



Workflows


Repository secrets

New repository secret

Name ↕	Last updated
BACKEND_DOCKER_PORT	9 hours ago
BACKEND_LOCAL_PORT	9 hours ago
FRONTEND_DOCKER_PORT	9 hours ago
FRONTEND_LOCAL_PORT	9 hours ago
GF_SECURITY_ADMIN_PASSWORD	6 hours ago
GF_SECURITY_ADMIN_USER	6 hours ago
GRAFANA_DOCKER_PORT	6 hours ago
GRAFANA_LOCAL_PORT	6 hours ago
JWT_EXPIRATION_MS	9 hours ago

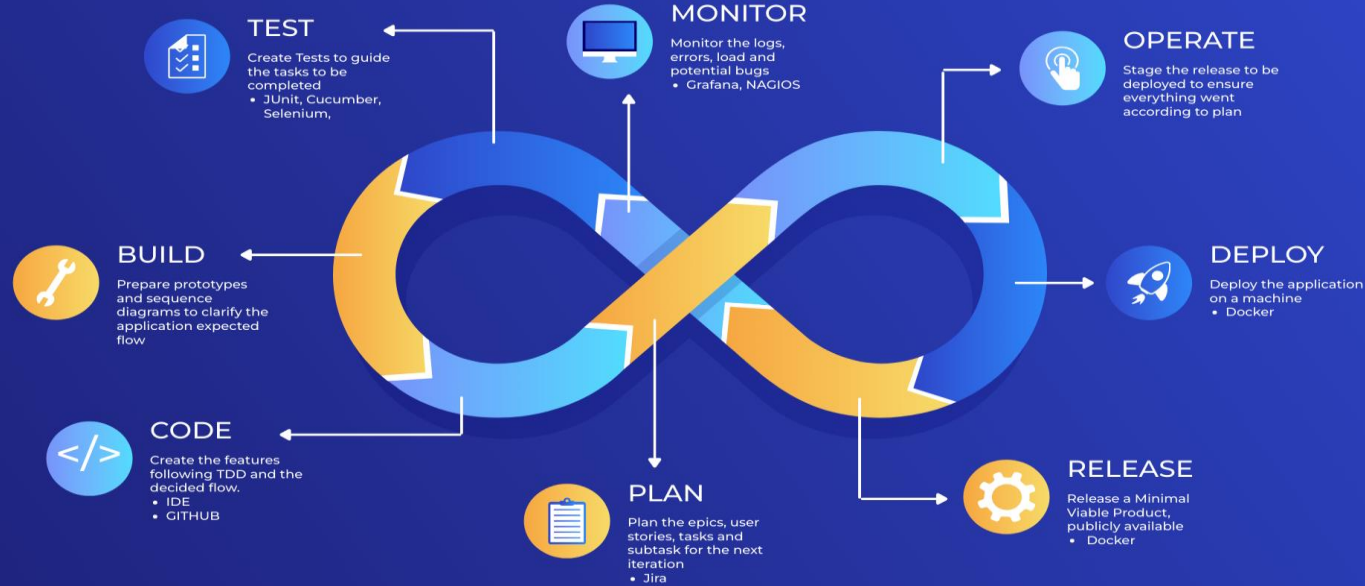
Runners

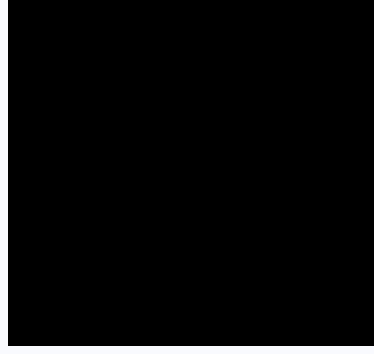
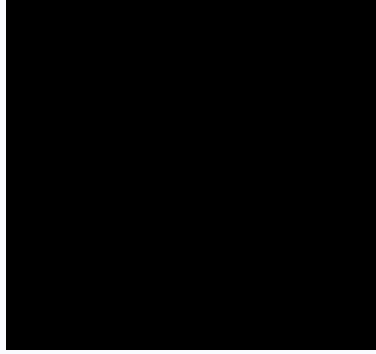
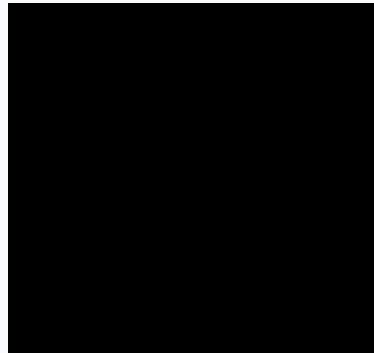
Status

 deti-tqs-09 self-hosted Linux X64	● Idle ...
---	--------------------------------------

DevOps Illustration

Dev Ops Concept





Workflow demo



○ Communication



Communication

Pull Request Template

Description

- What did you do? (e.g. Added a feature, fixed a bug, refactored code)
- What problem does this solve or what feature does it add?
Updated frontend to fit the new domain model
Added DTOs to support the frontend's with the new information
Updated tests

Related Issue

- Resolves: # or Closes: #

Type of Change

- Bug fix
- New feature
- Refactor
- Documentation update
- Tests

Checklist

- I have reviewed my code and made sure there are no obvious mistakes.
- I have added tests to cover my changes, if necessary.
- I have updated the documentation, if necessary.
- I have followed the project's coding standards and conventions.
- I have run the tests locally and they are passing.

Step-by-step (How was it tested)

Logged in as Admin

email: [REDACTED]
password: [REDACTED]

Went to the stations' page and checked all with AVAILABLE status

Clicked on a station
Verified the cards with the charger's and worker's information

Screenshots (if applicable)

Additional Information

You can view, comment on, or merge this pull request online at:

<https://github.com/GCapaross/TQS-Group-Project/pull/40>

Commit Summary

- 7f6a2d updated station's information to fit the refactor

File Changes (18 files)

- M chargingplatform/src/main/java/br/com/gcapaross/tqs/group/project/chargingplatform/DTOs/RegisterReservedDTO.java (53)
- A chargingplatform/src/main/java/br/com/gcapaross/tqs/group/project/chargingplatform/DTOs/StationDTO.java (29)
- A chargingplatform/src/main/java/br/com/gcapaross/tqs/group/project/chargingplatform/DTOs/WorkerDTO.java (18)
- M chargingplatform/src/main/java/br/com/gcapaross/tqs/group/project/chargingplatform/config/DataInitializer.java (4)
- M chargingplatform/src/main/java/br/com/gcapaross/tqs/group/project/chargingplatform/controller/StationController.java (7)

Email Notifications

 sonarqubecloud[bot] left a comment ([GCapaross/TQS-Group-Project#39](#))


Quality Gate Failed Quality Gate failed

Failed conditions

[62.1% Coverage on New Code](#) (required $\geq 80\%$)

[See analysis details on SonarQube Cloud](#)

—
Reply to this email directly, [view it on GitHub](#), or [unsubscribe](#).
You are receiving this because you are subscribed to this repository.

 Responder

 Responder a todos

> SA

Shelton Lázio Agostinho

[GCapaross/TQS-Gro... (9) 01:29

@lazio47 pus...

Caixa de Ent...

> SA

Shelton Lázio Agostinho

[GCapaross/TQS-... (2) qua, 22:20

@lazio47 com...

Caixa de Ent...

> J

Jira

[JIRA] (EDISON-9... (3) qua, 22:05

João Gaspar a...

Caixa de Ent...

QA Stack



Testing frameworks

JUnit + Mockito
Cucumber + Selenium



Code quality / Coverage tools

SonarCloud / Qube, ESLint + Prettier,
GitHub Actions, static analysis



Observability

Grafana, Nagios

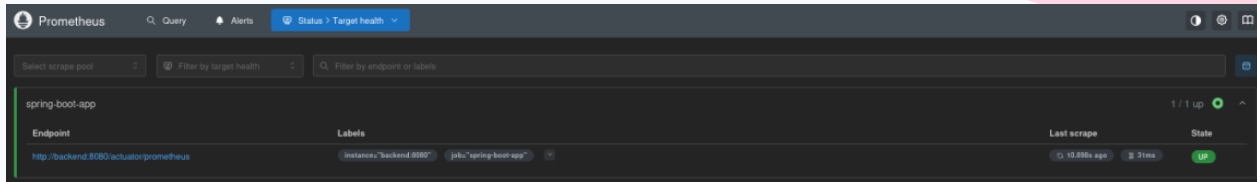


Performance

K6, Prometheus



Observability



Current Network Status
Last Updated: Thu Jun 5 00:12:58 UTC 2025
Updated every 60 seconds
Nagios® Core™ 4.5.7 - www.nagios.org
Logged in as admin

[View History For all hosts](#)
[View Notifications For All Hosts](#)
[View Host Status Detail For All Hosts](#)

Host Status Totals
Up Down Unreachable Pending
1 0 0 0
All Problems All Types
0 1

Service Status Totals
Ok Warning Unknown Critical Pending
5 2 0 0 0
All Problems All Types
2 7

Service Status Details For All Hosts

Host **	Service **	Status **	Last Check **	Duration **	Attempt **	Status information
localhost	Current Load	WARNING	06-05-2025 00:11:28	0d 0h 1m 30s	4/4	WARNING - load average: 3.07, 3.43, 3.39
	Current Users	OK	06-05-2025 00:09:11	0d 0h 13m 47s	1/4	USERS OK - 0 users currently logged in
	HTTP	WARNING	06-05-2025 00:12:54	0d 0h 1m 4s	4/4	HTTP WARNING: HTTP/1.1 401 Unauthorized - 695 bytes in 0.001 second response time
	PING	OK	06-05-2025 00:11:37	0d 0h 12m 21s	1/4	PING OK - Packet loss = 0%, RTT = 0.08 ms
	Root Partition	OK	06-05-2025 00:11:20	0d 0h 11m 38s	1/4	DISK OK - free space: / 106937 MB (\$4.47% inode=81%):
	Swap Usage	OK	06-05-2025 00:12:03	0d 0h 10m 55s	1/4	SWAP OK - 1% free (0 MB out of 511 MB)
	Total Processes	OK	06-05-2025 00:12:46	0d 0h 10m 12s	1/4	PROCS OK: 18 processes with STATE = RSLZDT



Overall Code	
Coverage	76.2%
Lines to Cover	507
Uncovered Lines	104
Line Coverage	79.5%
Conditions to Cover	152
Uncovered Conditions	53
Condition Coverage	65.1%
Tests	
Unit Tests	81
Errors	0
Failures	0

Product tour



Demo for product



PMI board (self review)

Plus

- CI went well since beginning. Uniformed the quality of code in the group.

Minus

- TDD
- X-RAY
- Refactor (specially in tests created with TDD)

Interesting

- X-RAY – Associating clearly the tests to the issues
- GitHub actions and linter and Sonar Cloud in other projects.
- BDD: Natural Language to create scal

Thanks!

Do you have any questions?

