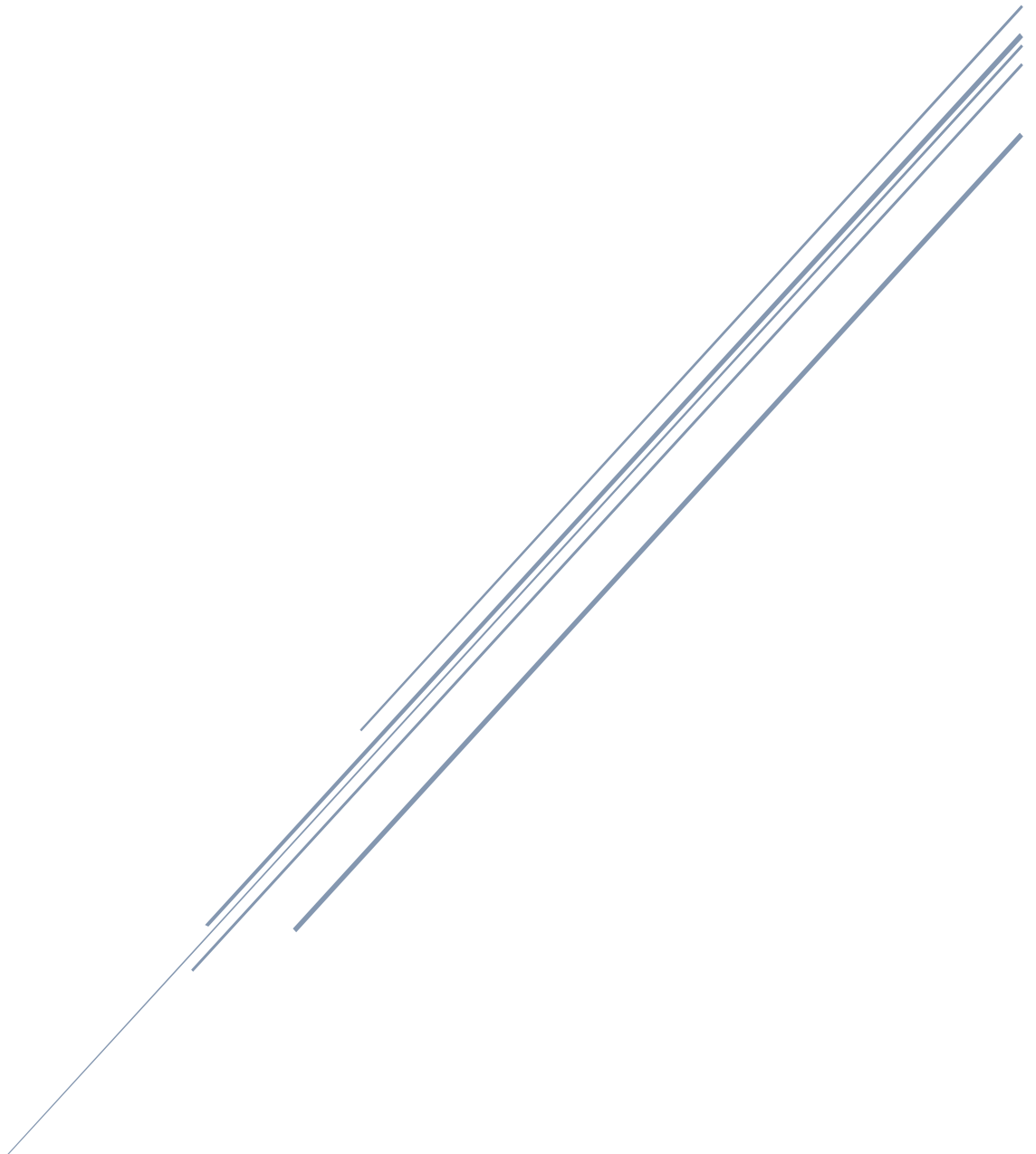# PROJECT PLAN

Project: Public transport lookup application

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Contents

Document versioning

Version	Description	Date
1.0	• Initial version	15-Sep-2022
2.0	• Reorganized planning	15-Nov-2022
3.0	• Added Sprint 4 goals to completed tasks	24-Nov-2022
4.0	• Added User story 4 as completed	26-Nov-2022
5.0	• Added User story 1 as completed	28-Nov-2022
5.1	• Added Links heading • Changed US-2 from Sprint 5 to Sprint 6 delivery goal • Marked Security report as done	14-Dec-2022
6.0	• Marked User story 3 as done	05-Jan-2023
6.1	• Marked Sprint 6 deliverables as completed • Added User story 12	11-Jan-2023
6.2	• Modified User story 12 • Completed User story 12	12-Jan-2023

Introduction

This document is the project plan for the Individual assignment of Semester 3, Fontys university of applied sciences. My name is Mertan Rasim, and I will carry out the plan in question.

Objective & motivation

I would like to make a web application that lets users view the timetables for bus lines in a city. For starters, the city in question will be Varna, Bulgaria, but the application will made extensible for other cities. My motivation is that the existing website, https://varnatraffic.com, personally, looks outdated and I have concluded that the user experience can be significantly better.

User stories & Acceptance criteria

1. As a user, I would like to view the available bus lines in a city in a user-friendly manner to choose the one I want more information about.
    o I can see the available bus lines
    o I can choose any bus line I would like to view
2. As a user, I would like to view the timetables of a bus line I chose to plan my schedule better.
    o I can see the stations and the time a bus will arrive
3. As a user, I would like to view what bus lines arrive on a station I specified so I plan my schedule better.
    o I type the name of the station and choose it
    o I see the bus lines that stop there and the time when they will arrive
4. As a user, I would like to view visually on a map where the stations are located for convenience.
    o I can see the map of the city
    o I can see the bus routes for every bus line or for a specific one
5. As a user, I would like to set my default route to show up when I view the website for convenience.
    o The set route shows up every time I open the website if I am logged in
6. As a user, I would like to know what the price and duration of a ticket for a is given bus line for convenience.
    o I can see the price of a ticket for a given bus line

o I can see the duration of the ticket

7. As a stakeholder, I would like users to be able to create accounts to save their preferences.
    o A user can create an account from a specific page
    o A user can login to their account

8. As a stakeholder, I would like administrators to be able to create, edit and delete information.
    o An administrator can login to an account they have been given from the product owner
    o An administrator can CRUD data such as: bus lines, stations, routes, ticket information, and user accounts.

9. As a user, I would like to be able to save a route as a picture and have it sent to my email, for convenience.
    o I can choose the bus line and route, then choose the option for the route to be sent to my email as a picture

10. As a user, I would like to be able to view my default route
    o I can see my default route when I visit the website

11. As a user, I would like to be alerted about events, so I'm aware of any risks.
    o I can view an alert as soon as it is posted
    o I can dismiss an alert
    o I can view any last alerts

12. As an administrator, I would like to view statistics about stations, sorted by how many bus lines routes they are crossed by.
    o I can see all stations and the number of bus lines they are included in.

Deliverables

The deadline for the delivery of the project is 13th of January 2023. By the end, the following items will be delivered:

- Full-stack web application
- Unit tests
- Project plan
- UML Class diagram
- Security report
- UX report
- Performance report

Moscow's table

Refence: User stories & Acceptance criteria

Priority	Task #
Must	1, 2, 3, 7, 8, 11, 12
Should	5, 6, 10
Could	4, 9
Wont	None

Required use-cases

- *A use-case that requires user authentication – Task 7*

- *A use-case that requires user authorization – Task 7, 8*

- *A use-case where the user retrieves detailed data about a database object – Task 2, 8*

- *A use-case where the user retrieves aggregated data – Task 12*

- *A use-case where the user searches using filters – Task 2*

- *A use-case where the user modifies an existing database object – Task 8*

- *A use-case where the user deletes an existing database object – Task 8*

- *A use-case where the user creates a new database object – Task 7, 8*

- *A use-case where WebSockets are used – Task 11*

What has been done

Category	Deliverables	Time
User stories	User story 7 (Authentication & Authorization)	Sprint 3
User stories	User story 8 (CRUD)	Sprint 4
User stories	User story 1 (Bus line overview) User story 4 (Map)	Sprint 5
User stories	User story 3 User story 11 User story 12	Sprint 6
Documentation	Project plan	Sprint 1
Documentation	UML	Sprint 2
Documentation	Applied research C4 diagram API documentation	Sprint 3
Documentation	Security report	Sprint 5
Documentation	Design document Web performance report	Sprint 6
Testing	Test plan UX feedback report	Sprint 4
Testing	Unit tests Test report Front-end testing	Sprint 6

What must be done

Category	Deliverables	Time
User stories	User story 2	Sprint 6

Links

Git repository - https://git.fhict.nl/I478158/s3-indiv

Project plan - https://git.fhict.nl/I478158/s3-indiv/-/blob/main/doc/Project%20plan.pdf

Design document - https://git.fhict.nl/I478158/s3-indiv/-/blob/main/doc/Design%20document.pdf

UML diagram - https://git.fhict.nl/I478158/s3-indiv/-/blob/main/doc/UML.pdf

C4 diagram - https://structurizr.com/share/77232/diagrams

Pipeline diagram - https://git.fhict.nl/I478158/s3-indiv/-/blob/main/doc/Pipeline%20diagram.png

Research paper on SQL vs NoSQL regarding the project - https://git.fhict.nl/I478158/s3-indiv/-/blob/main/doc/Applied%20research.pdf

Test plan - https://git.fhict.nl/I478158/s3-indiv/-/blob/main/doc/Test%20plan.pdf

UX Feedback & Report - https://git.fhict.nl/I478158/s3-indiv/-/blob/main/doc/UX%20Feedback%20&%20Report.pdf

Research paper for justifying technology stack used - https://git.fhict.nl/I478158/s3-indiv/-/blob/main/doc/Research%20paper%20for%20justifying%20technology%20stack%20used.pdf

OWASP Security report - https://git.fhict.nl/I478158/s3-indiv/-/blob/main/doc/OWASP%20Security%20report.pdf

API documentation with Swagger – Start the app and open the link localhost:8080/swagger-ui/