**Project Plan**

***Knockout Ticket***

*Coenen Frank*

*Oliveira De Arruda Camara Amalia*

*Schriek Erik*

|  |
| --- |
| **Date 28/03/2024** |
| **Version 2.1** |
| **State Update** |
| **Author Morisca Valentin-Gabriel** |

#### Version history

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Author(s)** | **Changes** | **State** |
| 1.0 | 06/03/2024 | Morisca Valentin Gabriel |  | Inception Phase |
| 1.1 | 28/03/2024 | Morisca Valentin Gabriel | Extending Project Plan, Goals, Test, Configuration, and adding Research Questions and Methodologies | Development Phase |
| 2.1 | 15/06/2024 | Morisca Valentin Gabriel | Ensuring that the documentation is up to date, also a few changes in the idea of the project (mostly about events) which are shown in the document itself. | Update |

Contents

[1. Project assignment 4](#_Toc162518302)

[1.1 Context 4](#_Toc162518303)

[1.2 Goal of the project 4](#_Toc162518304)

[1.3 Scope and preconditions 4](#_Toc162518305)

[1.4 Constraints 5](#_Toc162518306)

[1.5 Strategy 5](#_Toc162518307)

[1.6 End products 5](#_Toc162518308)

[1.7 Research questions and methodologies 5](#_Toc162518309)

[2. Project organisation 6](#_Toc162518310)

[2.1 Stakeholders and team members 6](#_Toc162518311)

[3. Activities and time plan 7](#_Toc162518312)

[3.1 Phases of the project 7](#_Toc162518313)

[4. Testing strategy and configuration management 8](#_Toc162518314)

[4.1 Testing strategy 8](#_Toc162518315)

[4.2 Test environment and required resources 8](#_Toc162518316)

[4.3 Configuration management 8](#_Toc162518317)

[5. Finances and risk 9](#_Toc162518318)

[5.1 Risk and mitigation 9](#_Toc162518319)

# Project assignment

## Context

The company, Exvision, operates in the entertainment industry, specializing in boxing events. With a growing demand for online ticketing services, particularly in the realm of martial arts, there’s a need to streamline the ticket booking process. The company aims to capitalize on this opportunity by developing an online ticket ordering system specifically tailored for boxing matches.

## Goal of the project

The project aims to revolutionize the way boxing enthusiasts access and purchase tickets for matches, addressing several critical aspects:

* Enhanced Accessibility and Convenience: By developing an online ticket ordering system, the project aims to make the ticket purchasing process easier and more accessible for spectators.
* Improved User Experience: The goal is to create a seamless and intuitive platform where users can effortlessly navigate through match listings, view detailed information, and secure their tickets with just a few clicks.
* Increased Revenue Generation: By offering a convenient and efficient ticketing solution, the project aims to drive higher ticket sales and revenue for the company. The online platform opens up new avenues for marketing and promotions, reaching a wider audience and maximizing ticket sales potential.
* Strategic Differentiation: Implementing this online ticket ordering system will set the company apart from competitors by providing a modern and tech-savvy approach to ticket sales. This strategic differentiation strengthens the company's brand image and market positioning, attracting more customers and stakeholders.

By achieving these goals, the project not only meets the immediate need for a modernized ticketing system but also drives long-term growth and success for the company, positioning it as a leader in the sports entertainment industry.

## Scope and preconditions

|  |  |
| --- | --- |
| **Inside scope:** | **Outside scope:** |
| 1. Development of the online ticket ordering platform for boxing matches, including user authentication, match listings, ticket purchasing functionality, and user management features | 1. Physical ticket distribution or management |
| 1. Implementation of Night Events which contain more events. | 1. Non-boxing related events or ticketing services |
| 1. Implementation of search filters and sorting options to enhance user experience | 1. Payment |
| 1. Design and implementation of real-time communication features such as notifications |  |
| 1. Testing and quality assurance to ensure the platform meets performance, security, and usability standards |  |
| 1. Deployment and initial setup of the platform |  |

**Preconditions:**

* The company has already selected certain technology frameworks or platforms for development. While respecting these choices, the project will assess their suitability and make adjustments if necessary to meet project requirements effectively
* Existing infrastructure and resources within the company will be leveraged for deployment and maintenance of the online ticketing platform

## Constraints

Development will use React for a responsive interface, Java Spring Boot for backend, and MySQL for server management.

## Strategy

The project will adopt an Agile approach, specifically Scrum methodology, for its development strategy. This choice is justified for several reasons:

* **Flexibility**: Agile methodologies, such as Scrum, allow for adaptability and flexibility in responding to changing requirements and priorities. Given the dynamic nature of software development and evolving user needs, Agile provides the flexibility to adjust the project scope and features incrementally throughout the development process.
* **Incremental Delivery:** Agile methodologies emphasize delivering working software in short, iterative cycles known as sprints. This approach enables the project team to prioritize and deliver high-value features early, providing stakeholders with tangible results and opportunities for feedback. It also facilitates early detection and mitigation of risks, ensuring timely delivery of a quality product.
* **Continuous Improvement:** Agile fosters a culture of continuous improvement through regular reflection and adaptation. By conducting sprint reviews and retrospectives, the project team can identify areas for enhancement and implement iterative refinements to the product and development processes. This iterative approach promotes innovation and drives ongoing value delivery.
* **Stakeholder Engagement:** Agile methodologies encourage close collaboration and communication with stakeholders throughout the development process. Regular sprint reviews and product demonstrations allow stakeholders to provide feedback and steer the direction of the project, ensuring alignment with their expectations and maximizing customer satisfaction.

Overall, adopting an Agile approach, specifically Scrum, aligns with the project's goals of delivering a high-quality online ticket ordering system efficiently while maximizing customer value and stakeholder satisfaction.

## End products



## Research questions and methodologies

**Research questions:**

1. How to design and implement the ticket buying system?
   1. How does an user buy a ticket?
   2. What if a boxer wants to also buy a ticket? He should not be able to book his own match etc..
   3. How does an event organizer create an event?
   4. How to get the status of the boxing match? How should a boxing match be handled if it already happened?
2. How to make the design user-friendly
   1. How should the matches be displayed?
   2. How should the Home page look like?
   3. How should the booking system be created so that it is intuitive and easy to use?
   4. How to ensure that the solution will allow minorities (people with disabilities etc.) to also book a ticket and a seat?

# Project organisation

## Stakeholders and team members

*<<Indicate all stakeholders and team members for your project. For each stakeholder indicate the role for your project. Note that the role that a person has for your project is different from the function the person has. E.g., someone with the function “department manager of department X” can have the role of product owner for your project.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Abbreviation** | **Role and functions** | **Availability** |
| *Valentin Morisca*  *Email by:* [*516431@student.fontys.nl*](mailto:516431@student.fontys.nl) |  | *Full-Stack Developer* | *Tuesday: 9-17*  *Wednesday: 9-17*  *Every other weekday: 17-22* |
| *Coenen Frank* |  | *Stackholder* | *-* |
| *Oliveira De Arruda Camara Amalia* |  | *Stackholder* | *-* |
| *Schriek Erik* |  | *Stackholder* | *-* |

# Activities and time plan

## Phases of the project

The project will be divided into 6 sprints. Sprint 1 being the initial phase of the project, and sprint 6 being the final phase of the project.

**Sprint 1:**

* Week 1: Research techniques, finish documentation, and begin backend setup.
* Week 2-3: Continue backend setup, initialize basic RESTful API, and start designing the database.

**Sprint 2:**

* Week 4: Start the React development and connect the Backend with the Frontend
* Week 5: Design document version 1
* Week 6: Implement a basic home page

**Sprint 3:**

* Week 7: Implement the database schema.
* Week 8-9: Develop database connectivity and ensure security between the two components (frontend, backend).

**Sprint 4:**

* Week 10: Develop Boxer’s rating, start integrating real matches APIs for real-time matches.
* Week 11-12: Implement roles and messaging between users.

**Sprint 5:**

* Week 13: Gather feedback on the UI and refine the User Interface based on preferences.
* Week 14-15: Integrate backend and frontend and test it thoroughly.

**Sprint 6:**

* Week 16: Implement real-time messaging and notifications.
* Week 17: Conduct final testing, and finish documentation.
* Week 18: Submit the final version.

# Testing strategy and configuration management

## Testing strategy

The solution will be tested thoroughly through the whole development process using the following methods:

* Unit Testing
* System Testing
* CI/CD Environment
* Security Testing
* Integration Testing

## Test environment and required resources

* Development and Testing
* CI/CD Pipeline
* Security Testing Tools

## Configuration management

Version control will be done using Git for branching and merging.

# Finances and risk

## Risk and mitigation

|  |  |  |
| --- | --- | --- |
| **Risk** | **Prevention activities** | **Mitigation activities** |
| 1. Misinterpretation of requirements | Frequent meeting with the stakeholders | Meetings with the stakeholders to solve the issue |
| 1. Database corruption or loss | Regular backups | Backups of Flyway which will restore the database schema |
| 1. Cybersecurity Threats | Regular security updates | Removing vulnerable dependencies\* |

\*Removal of the vulnerable dependencies assumes that the faults were discovered during the building of the system and were not implemented with intent.