# Ticket Vending Website for Football Team

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# Table Of Contents

# Course Requirements

In your individual track assignment you will need to work on a project of your own choice. Feel free to use your imagination, but make sure that your project meets the following requirements:

It should comprise an JavaScript framework based front-end part, and an API with database based back-end. Your application should include:

- A use-case that requires user authentication with the system (e.g. logging in as a user)
- A use-case that requires user authorization (e.g. delegating to a third person the right to edit some content on behalf of a user)
- A use-case where the user retrieves detailed data about a database object (e.g. a specific invoice)
- A use-case where the user retrieves aggregated data (e.g. total sales in the last quarter)
- A use-case where the user searches using filters (e.g. get list of invoices above EUR100,00 in the past 5 days)
- A use-case where the user modifies an existing database object
- A use-case where the user deletes an existing database object
- A use-case where the user creates a new database object
- A report on the security of your application
- A report on the performance of your application

# Project Goal

The goal of this project is to create a website that meets previously mentioned requirements for a football team. This website will include 2 different roles, one for administrators and one for fans. Administrators will have more control over the website than fans, allowing them to perform actions like getting tickets for free or viewing the revenue from the on-site ticket purchases.

# Deliverables

This project will be following the Agile development methodology, giving me a total of 5 Sprints with deliverable with the 5$^{th}$ being the final result. This sprints will contain the following:

Sprint 1:

- Project planning (including initial product backlog with user stories)
- CI/CD environment initialization (setup your Git project repository in GitLab, and prepare it for Continuous integration).
- Mock back-end REST full API

Sprint 2:

- Design document version 1 (including a justification for the front-end framework of choice)
- 1st prototype iteration (demonstrating frontend – backend connectivity with mock interfaces)

Sprint 3:

- Design document version 2 (including a justification for the back-end system, quality assurance metrics)
- 2nd prototype iteration (demonstrating connectivity with backend database, including unit-tests)

Sprint 4:

- Design document version 3 (including security related design decisions)
- 1st release version (demonstrating authentication/authorization integration)
- Report on how the OWASP criteria relate to your application
- Up-to-date product and sprint backlogs and burn-down charts

Sprint 5:

- Final design document
- 2nd release version (demonstrating a fully operational CI/CD pipeline)
- Up-to-date product and sprint backlogs and burn-down charts.

# Constraints/Risks

It is important to remark that now more than ever it is very likely that Risks will happen due to all the regulations we are suffering due to the pandemic of COVID-19 that has been ravaging the world for almost a year. The following list is the Constraints/Risks that could most likely give the project issues:

- Illness
- Family issues (severe illness/ death)
- COVID-19 regulations
- Mind blocks

# Use Cases

## Case 1:

- Actor: Fan
- Preconditions: Fan is logged in
- Main success scenario:
    - Fan selects a match.
    - Match screen with data and prices shown.
    - Fan presses the button to purchase ticket.
    - Payment is requested.
    - Fan inputs his payment data.
    - System verifies payment and shows a success message.

## Case 2:

- Actor: Manager
- Preconditions: Manager is logged in
- Main success scenario:
    - Manager selects revenue tab
    - Revenue is shown on screen

## Case 3:

- Actor: Fan
- Preconditions: Fan is logged in
- Main success scenario:
    - Fan selects history tab
    - History of purchases is shown on screen

# User Stories

### Story 1:

As a fan, I want a ticket vending website so that I can easily purchase tickets online.

### Story 2:

As a manager, I want to have access to the revenue so that I can easily create my revenue reports.

### Story 3:

As a fan, I want a match history so that I can easily see the dates from the incoming matches.