Software Architecture Document

Individual Project

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Class: S3-CB04

Version: 1.0

REVISION HISTORY

Version	Changes
0.1	- Initial version
1.0	- Official Release

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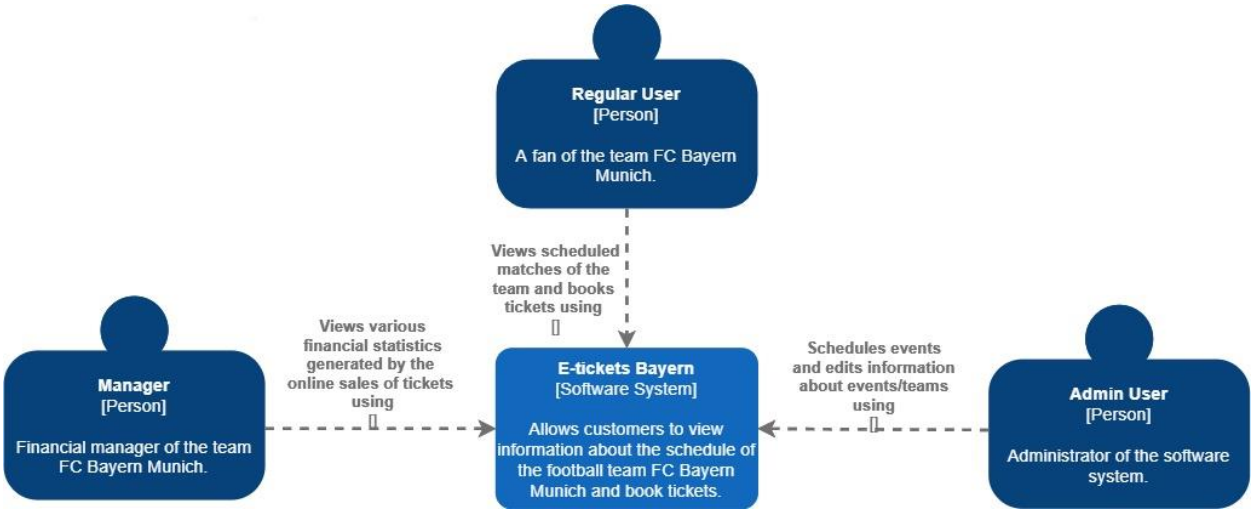
Introduction

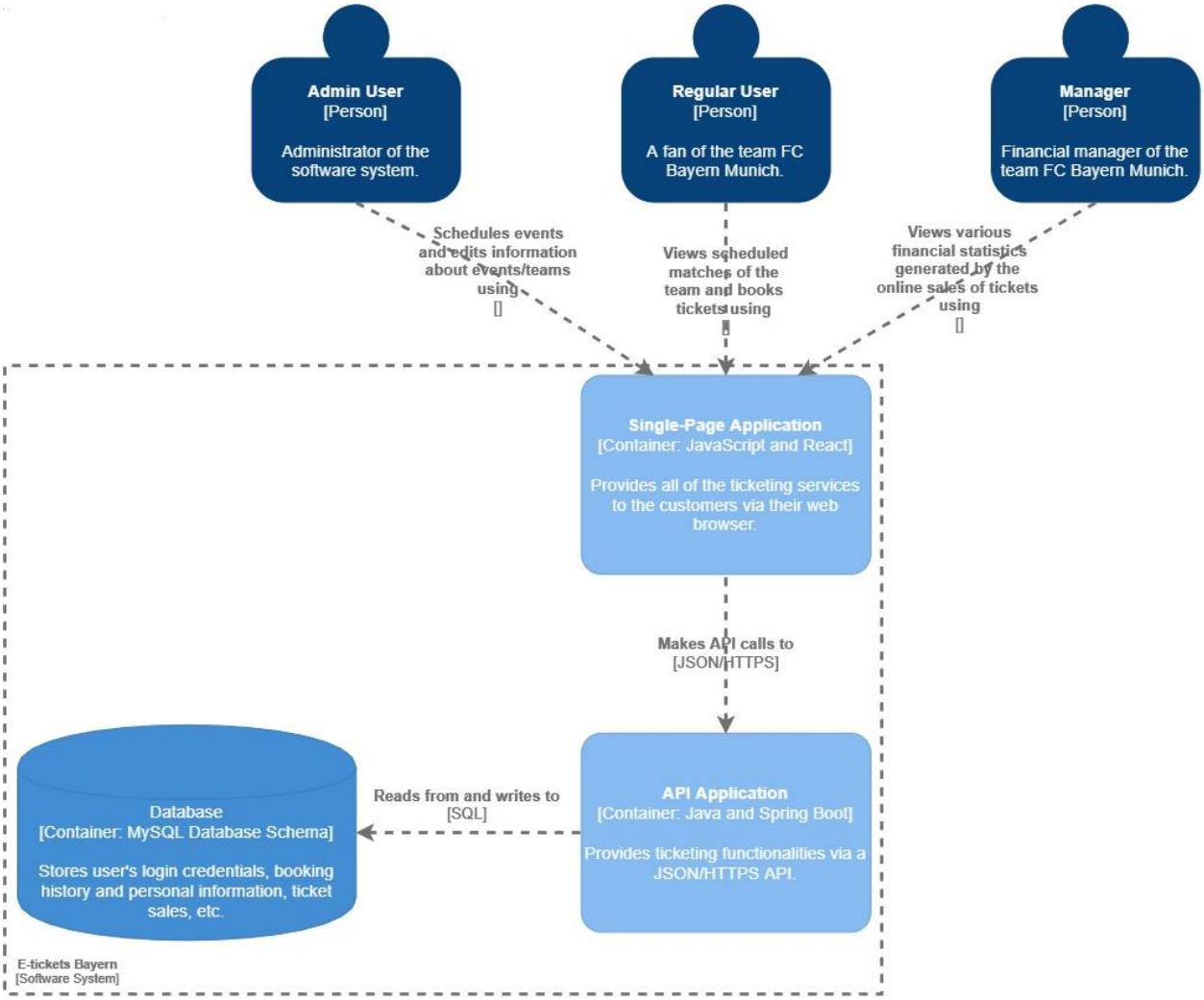
The purpose of this document is to showcase the architecture of the software system “E-tickets Bayern”, to guarantee a SOLID architectural design and provide explanation on framework choices and how the system is going to operate.

This web application is going to provide an online ticketing service for the football club “FC Bayern Munich”, where the fans of the club will be able to book tickets, the administrators of the service will be able to keep the overview of events of the team up-to-date and the managers will have the ability to view financial statistics regarding the sales generated by this software system.

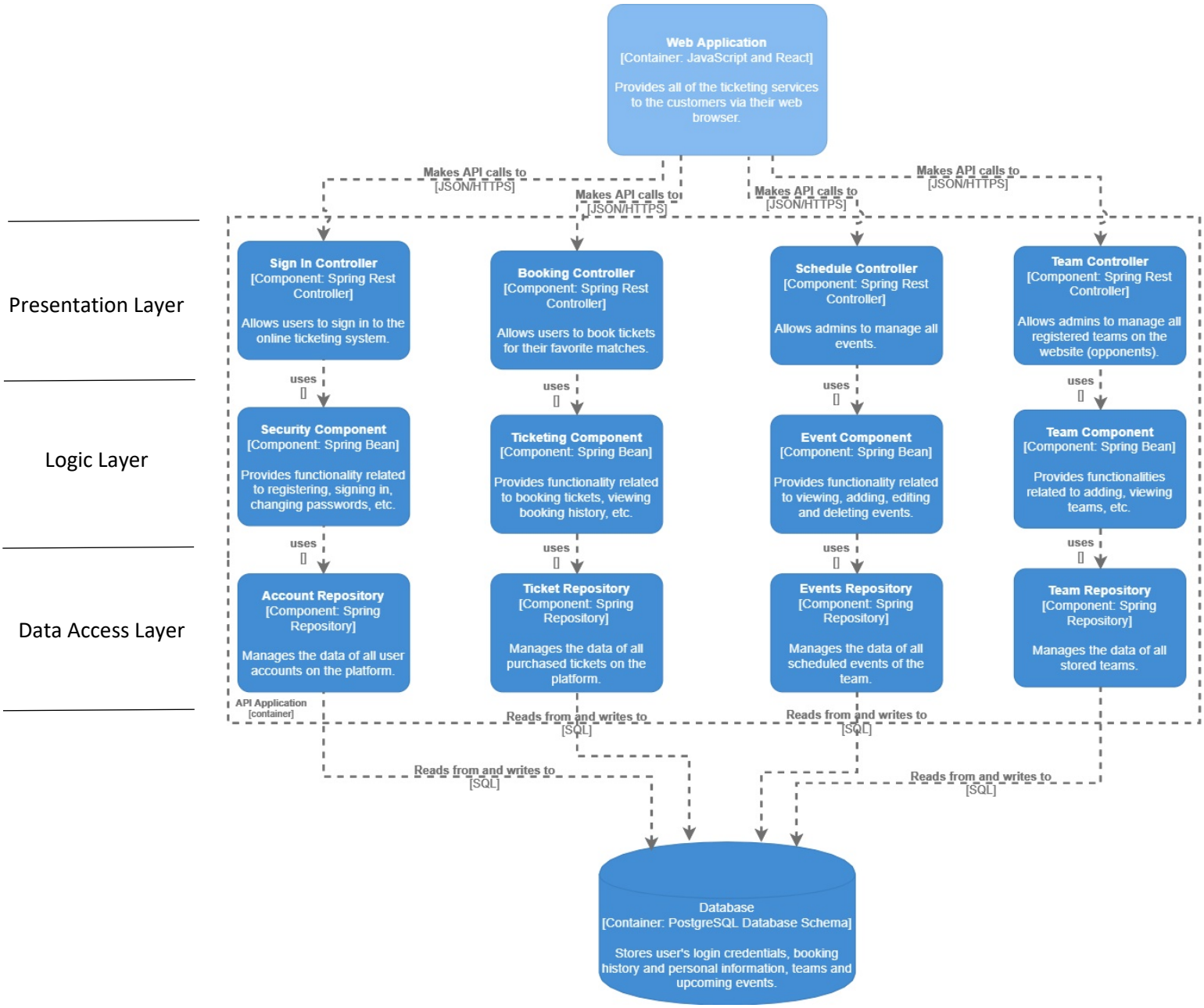
System Context (C1)



Containers and tech choices (C2)

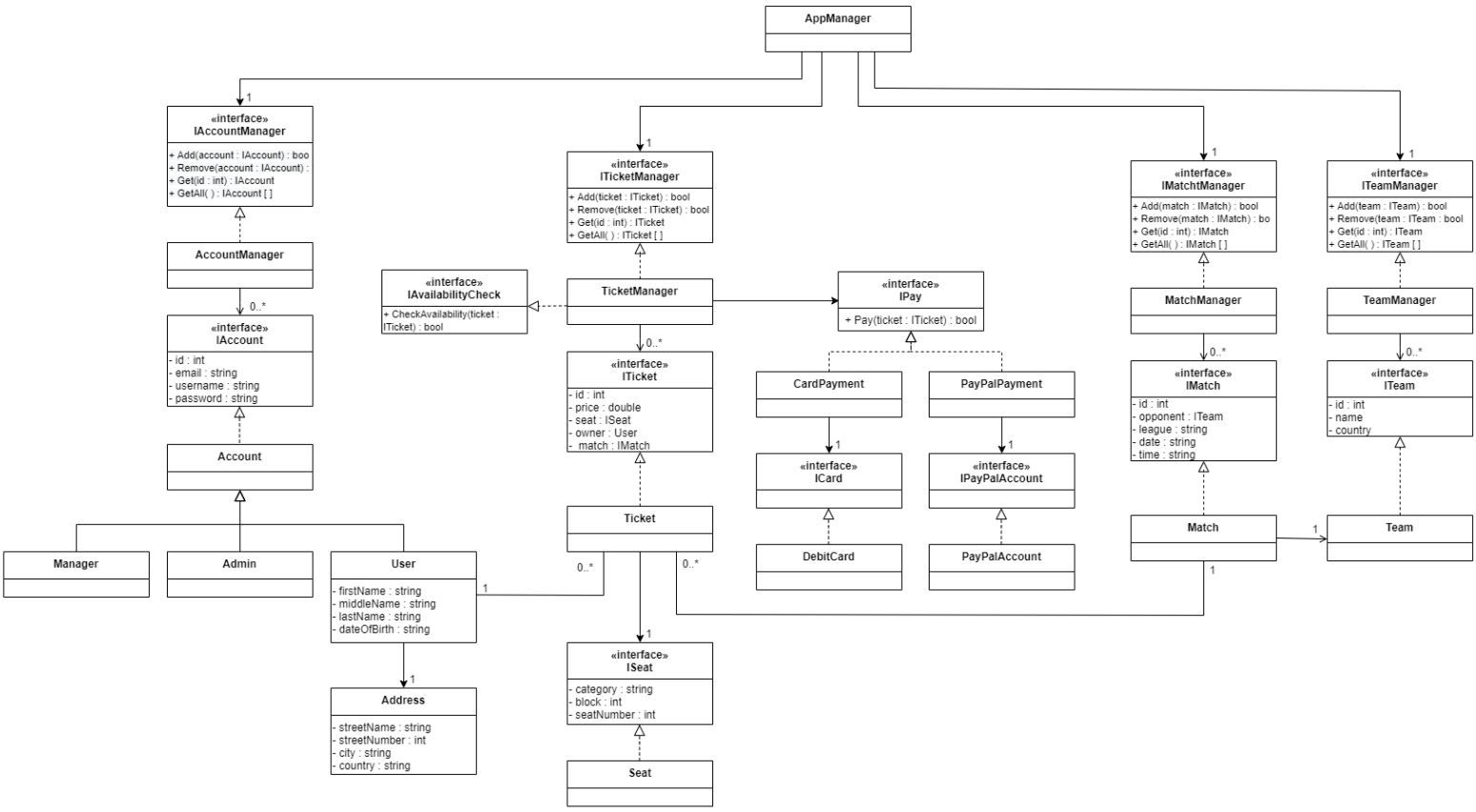


Components (C3)

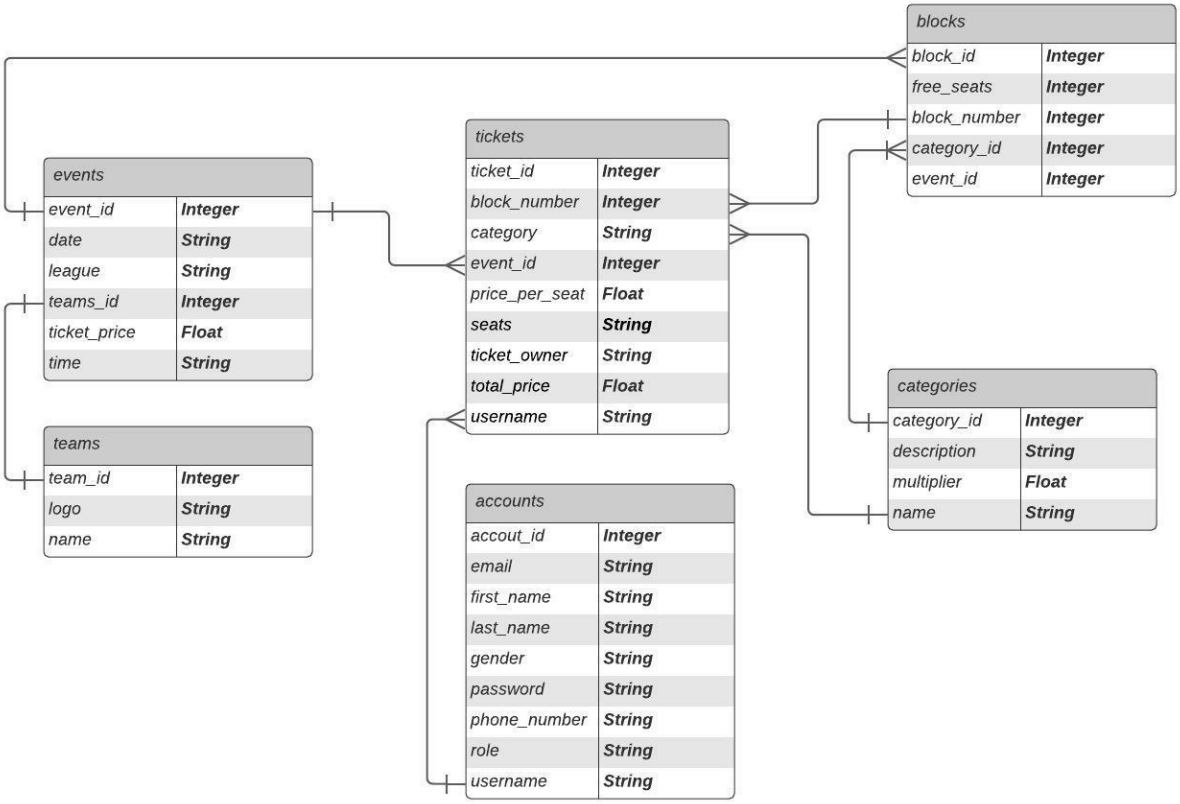


Data Persistence: Each of the logic components is going to be stored in a database, so all the valuable data is going to be persistent throughout the application.

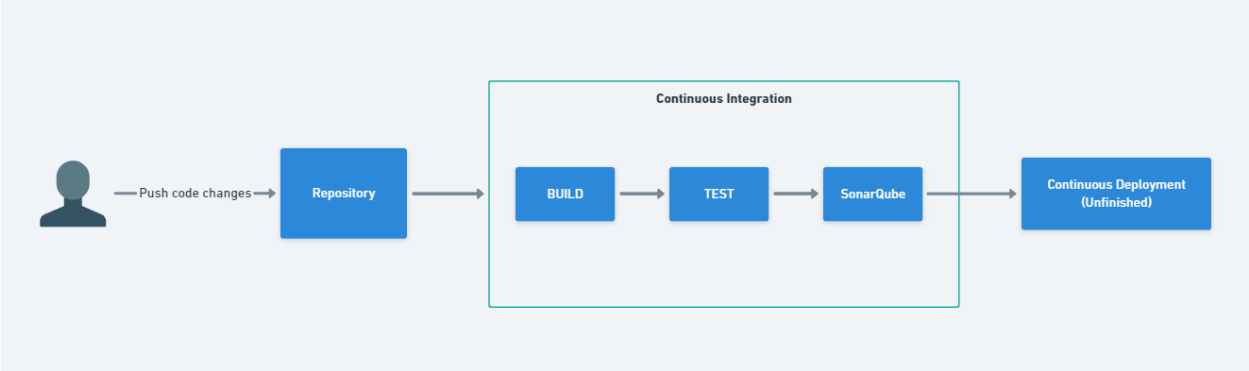
Class diagrams and sequence diagrams



Database Design



CI/CD Pipeline



API documentation

URL	resource	operation	result
/events	Events	GET	read a list with all current events
/events	Events	POST	create a new event
/events/1	Events	GET	read an event with id 1
/events/1?categoryId=1	Events	GET	read a category with id 1 for event with id 1
/events?id=1	Events	DELETE	delete an event with id 1
/events	Events	PUT	update an event
/teams	Teams	GET	read a list with all teams
/teams/FC Barcelona	Teams	GET	read a team with a name “FC Barcelona”
/teams	Teams	POST	create a new team
/tickets	Tickets	GET	read a list with all the bookings of the current user
/tickets	Tickets	POST	create a new booking for the current user
/categories	Categories	GET	read a list with all the categories
/categories/1	Categories	GET	read a category with id 1
/blocks?eventId=3&categoryId=1&quantity=2	Blocks	GET	read a list of blocks with 2 or more available seats for category with id 1 of event with id 3
/login	Accounts	POST	provides access token based on correct user credentials
/users	Accounts	POST	create a new user account
/users	Accounts	GET	read the account information of the current user
/users	Accounts	PUT	update the account information of the current user