

# Sportify

## **Description**

This project will be the web application on first step. In the future mobile versions would be developed. Generally, application can be described as “sport portal”. There will be different users such as: guest, registered user, stadium-admin, admin. In basic version, guests are users who can visit website for checking public posts but cannot be able to access rights to manage any data. Registered users can book stadium for different type of sport activities. He/she can book place for certain time and pay the fee by card. Users can find appropriate stadium for playing football, volleyball, basketball etc. They can use map for finding nearest place or can filter them by special characteristics (such as price, quality, area etc.). They can also easily create teams for playing matches or individual player can match with any team who needs player for match. Mentioned matching and filtering functionalities will be enlarged in future with more options. At the same time, stadium-admin who is responsible person for handling bookings for certain stadium. Stadium-admin can post and manage times for their stadium. In the future there will be more functionalities such as: enthusiast competitions, fun activity records and AI bot.

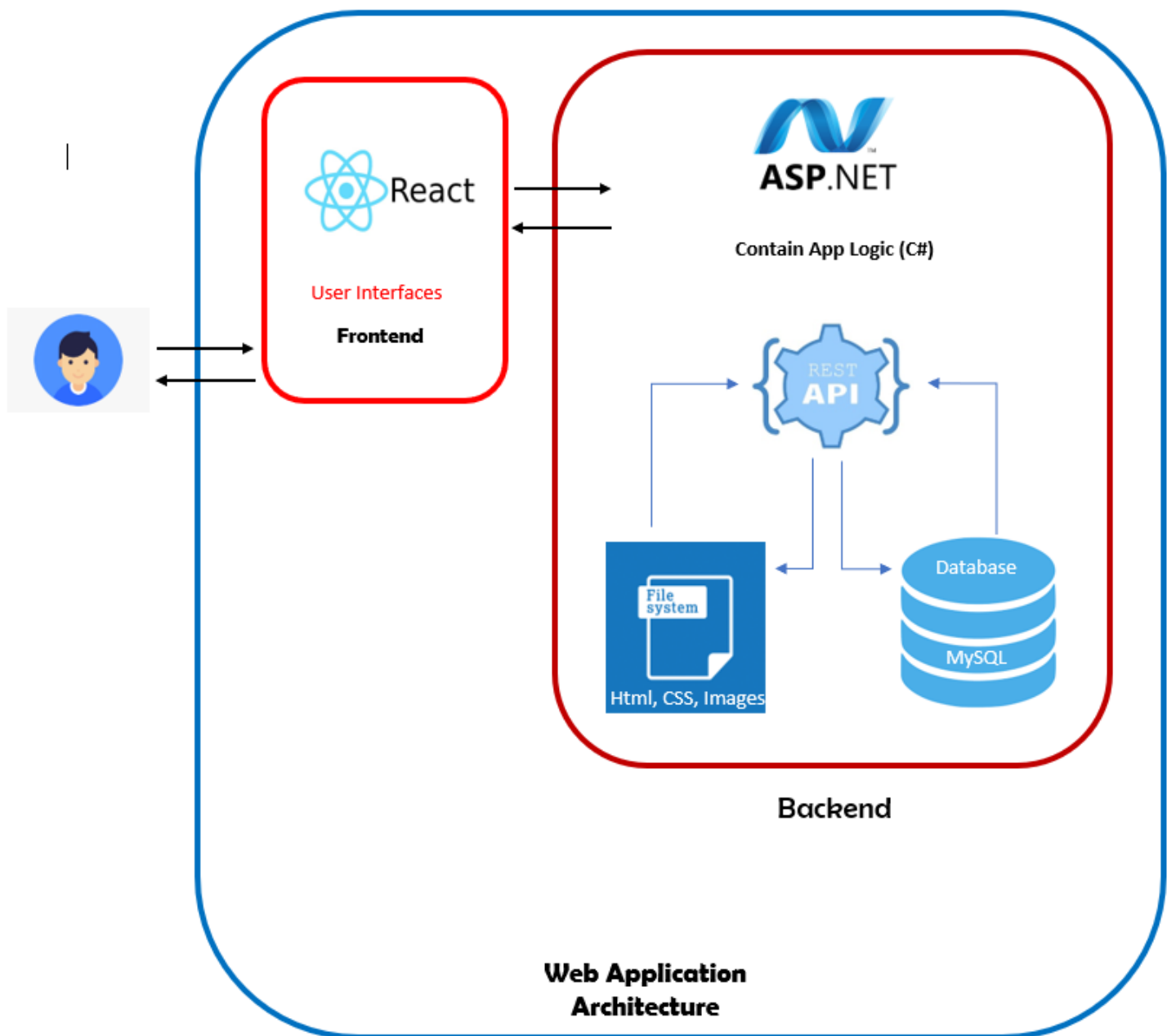
## **Possible use cases**

1. **User registration:** for beginning 4 types of user are desired that mentioned above.
2. **Team management:** users can make team, or teams can find player for the matches
3. **Booking:** users will find suitable stadiums that match their interests.
4. **Competitions:** arranged by admin for entertain players.
5. **Search by filter:** users will be able to filter search result by multiple options
6. **Fun ratings:** users can rate each other who played together for making application more interesting
7. **AI assistance:** in the future, there can be bot (either speech-to-text or chat-bot) who would filter options and suggest user appropriate ones.
8. **Additional use-cases:** in the future, this app would be sport portal where user would get fun and book booking at the same time. Additionally, user would be able to check live-scores and standings of professional sport tournaments; to check and buy tickets for upcoming sport events; to follow latest transfer news etc.

**Note:** For the first semester only first three use cases were planned.

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## Architectural view

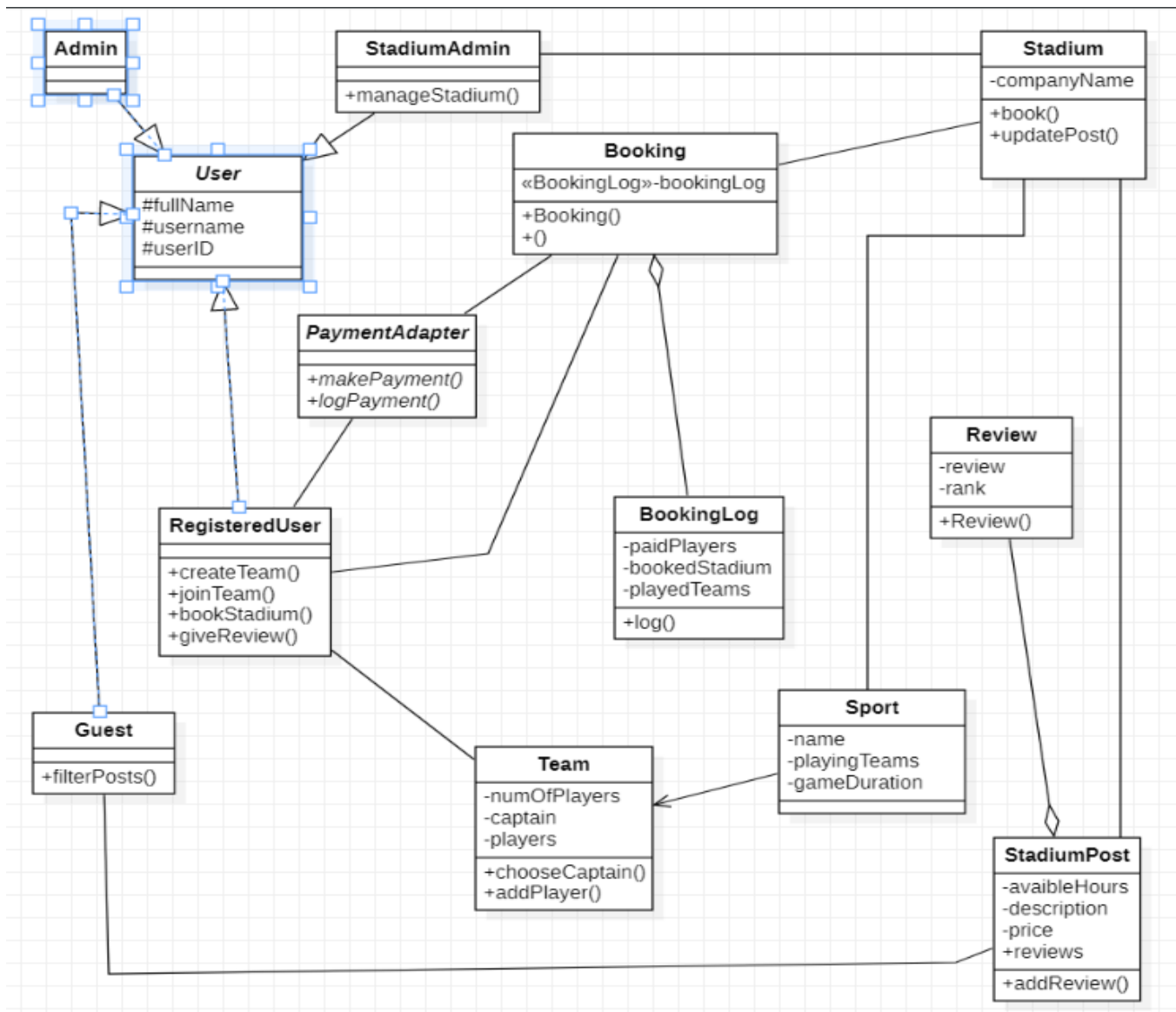


## Front-end

Probably front-end will be developed by the help of external assistance. Generally, JavaScript frameworks/libraries will be used for user interfaces (UI). **React.js** is the planned library on initial stage. It would be either replace with **Angular.js** or keep React.js depending on development period. Decision will be finalized after deciding most specific characteristics of the application runtime. Both frameworks can be easily extendable for mobile version for maintaining architecture base principles in future modifications.

## Back-end

**ASP.NET** framework was planned to use building web application. **Razor** syntax will be used for building dynamic web pages using **C#**. Backend code will be mainly **C#**. **RESTful API** will be developed for creating web services. Primary view of the classes that desired to cover backend described below.



## **Database**

Relational Database was planned. Abstract complete structure of data models will be detailed precisely, that is why relational database was planned based on developer community comments. Probably, **Entity .NET Framework** will be used for object-relational mapping.

***Note:** Entity Relationship Diagram will be designed in next step.*

## **External Data Sources**

- **Google Map API:** this API will be used for match users with appropriate stadiums by using their exact location, also users will be able to filter stadiums by their location.
- **Live-Score API:** as mentioned above, this application will be sport portal. So, users will be able to check live scores of professional championships all over the world. This API will be used for making this functionality available.
- **Additional APIs:** there will be variety of activities where users can entertain. Such as: checking available tickets for matches, register within other social hub application accounts, AI bot for creating user assistant for managing his/her bookings etc. These use cases will be developed with some external data sources where specific tools/technologies will be needed.