



# SPORTIZZA

**CS GROUP 19**  
**SCS 2202**

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**CO-SUPERVISOR: ISHANI FONSEKA**

# TEAM CS 19

## GROUP MEMBERS



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**2019/CS/194**



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**2019/CS/028**



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# INTRODUCTION





# CUSTOMER

*HOW MANY GROUNDS DID I CALL TO CHECK THE AVAILABILITY?*

*HOW MANY CALLS DID I MADE TO CONFIRM MY BOOKING SLOT?*

*HOW MANY DAYS DID WE HAVE TO SHARE OUR SLOTS WITH STRANGERS?*



# SPORTS ARENA

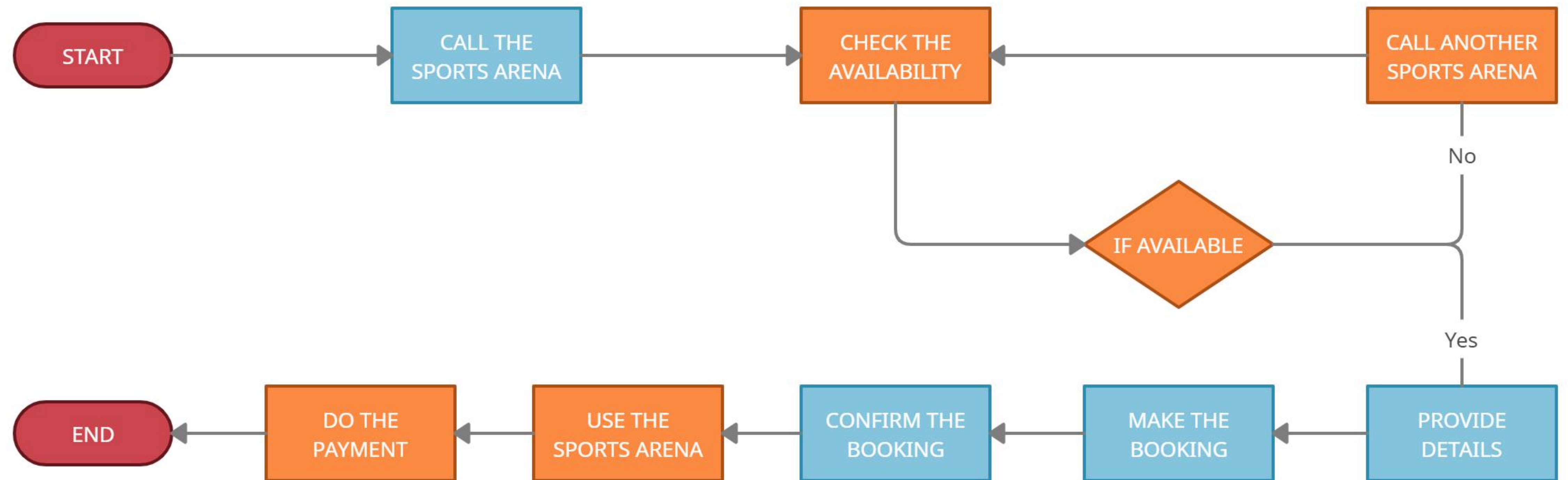


*HOW MANY TIMES DID OUTSIDERS USED OUR FACILITIES  
PRETENDING TO BE THE BOOKING PARTY?*

*HOW MANY CUSTOMERS DIDN'T PAY FOR THEIR BOOKED  
TIME SLOT JUST BECAUSE THEY COULDN'T USE IT?*

*HOW MUCH EFFORT WE PUT TO KEEP TRACK OF OUR  
GROUND BOOKINGS?*

# HOW DOES IT WORK AT THE MOMENT?

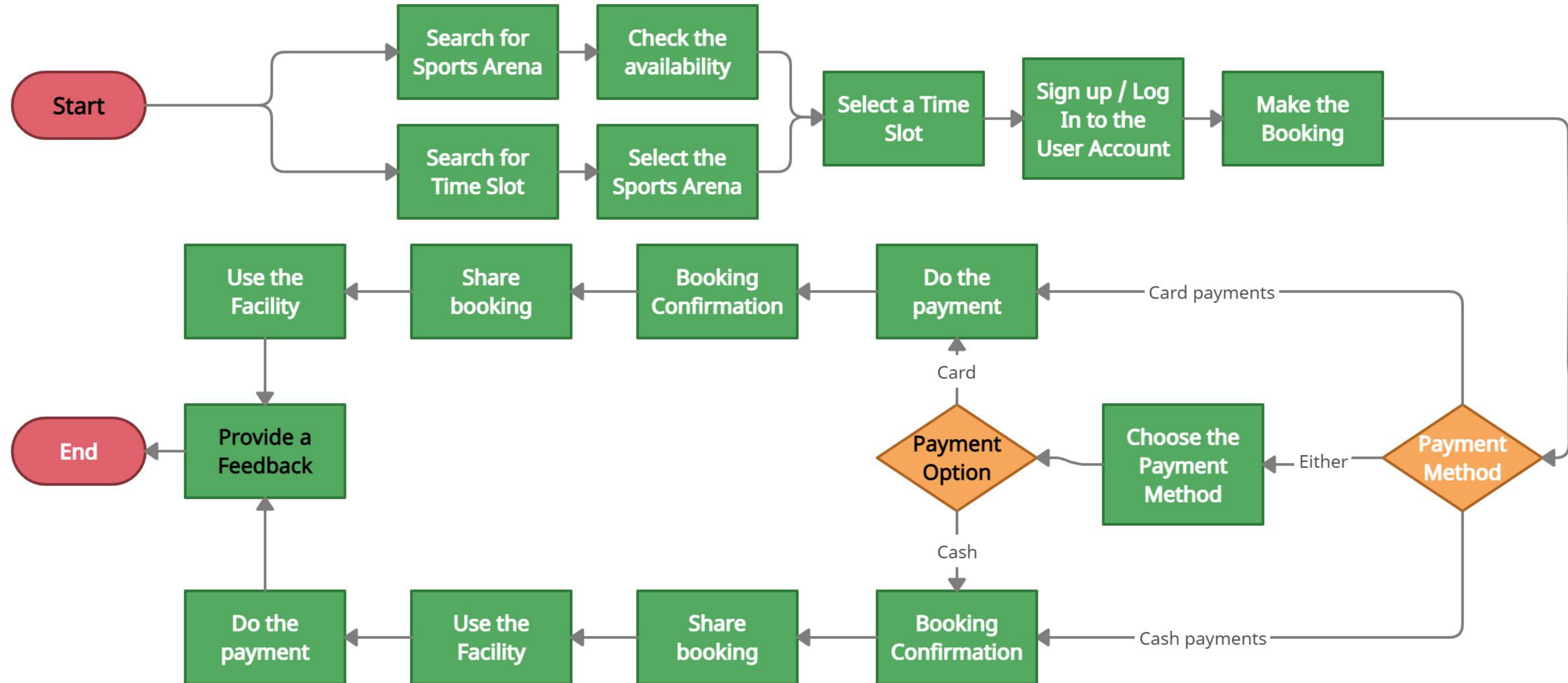


# SPORTIZZA ?

# PURPOSE



# HOW DOES IT WORK WITH OUR SOLUTION?



# REQUIREMENT GATHERING





# SURVEY

## Sportizza - Hope of building a healthy nation

Greetings to all,

We, a group of 2nd-year undergraduate students, have undertaken a project to build an online sports arena booking system. This project focuses on booking sports arenas to play cricket, football, basketball etc. As booking manually is not feasible for many, we have come up with this idea, which could become handy going forward.

Everyone loves sports! ♥ And having a web-based app made to carry all that you need to know at your fingertips just makes lives easier. So we would really appreciate it if you could spare a few minutes to fill this survey. Thank you in advance. 🙏

**\* Required**

How often do you go to play in a sports arena? \*

- ☐ More than once a week
- ☐ More than once a month
- ☐ Very rarely
- ☐ Not at all

How did you make a booking?

- ☐ Over the phone
- ☐ By visiting the sports arena
- ☐ Other: \_\_\_\_\_

If it's over the phone, what's the average number of calls you make per booking?

- ☐ One
- ☐ Two to three
- ☐ Four or more

If one place is not available, would you search for another sports arena?

- ☐ Yes
- ☐ No

Do you think that an online platform for sports arena bookings would solve your problems? \*

- ☐ Yes
- ☐ No
- ☐ Maybe

Which of the following features would you like to see in our proposed platform? \*

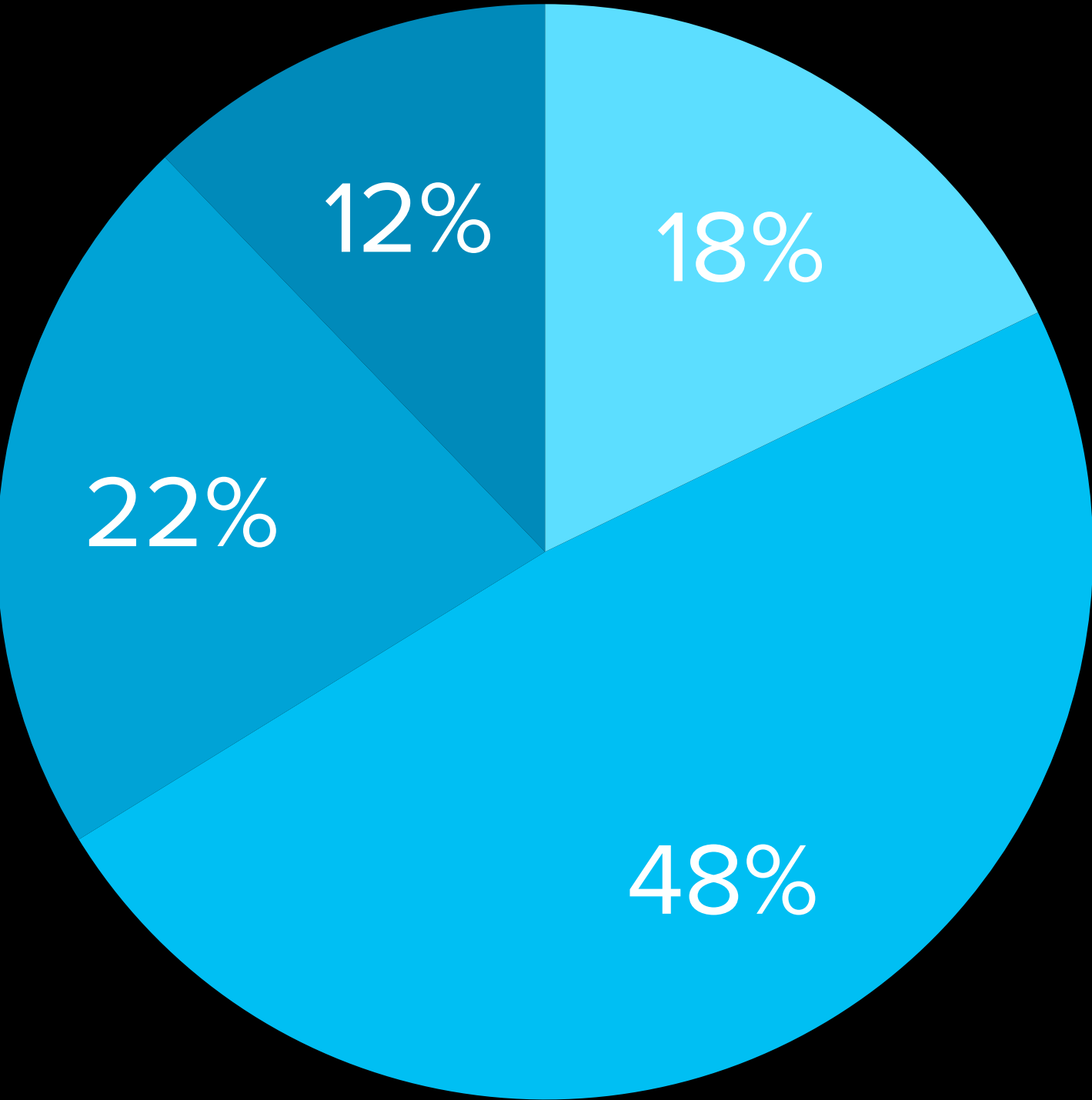
- ☐ Search for sport arenas
- ☐ Search for free time slots
- ☐ Book a sports arena
- ☐ Cancel booking
- ☐ Rate sports arenas

# ANALYTICS FROM THE SURVEY

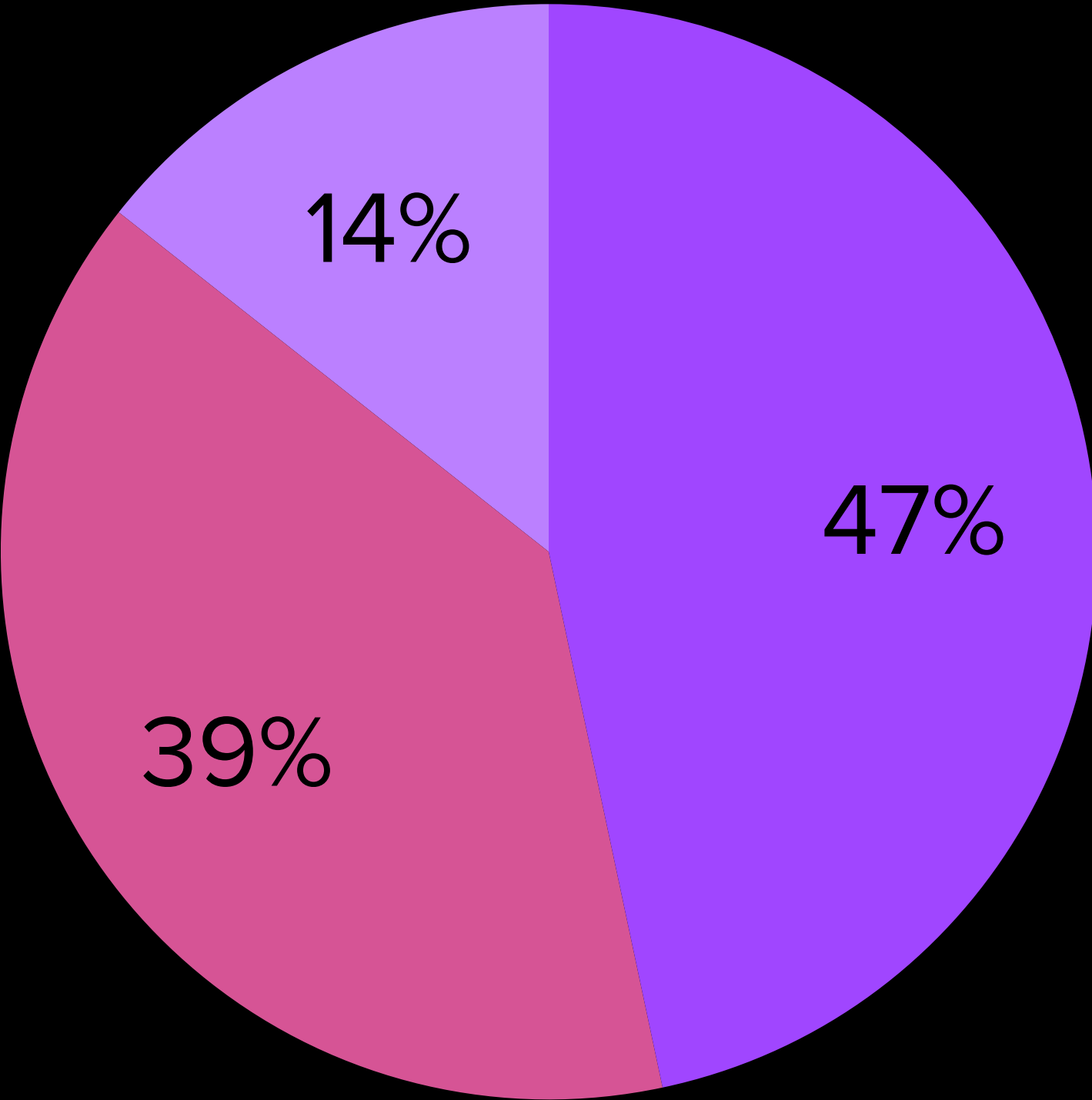
- More than once a week
- More than once a month
- Very Rarely
- Not at all

- By Visiting a Sport Arena
- Over the Phone
- N/A

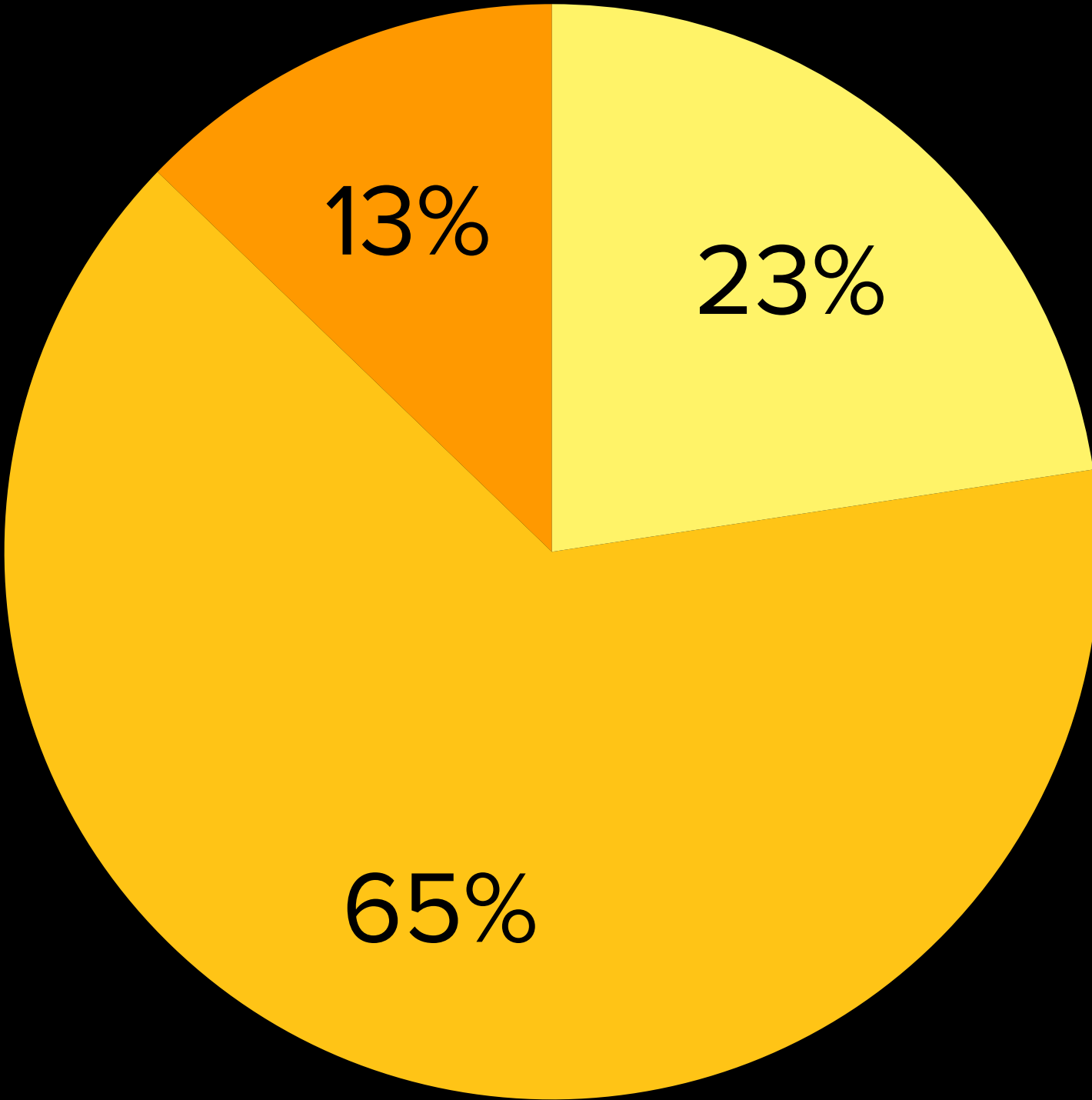
- 1
- 2-3
- > 4



Frequency of visiting a sports arena



Method of making a booking

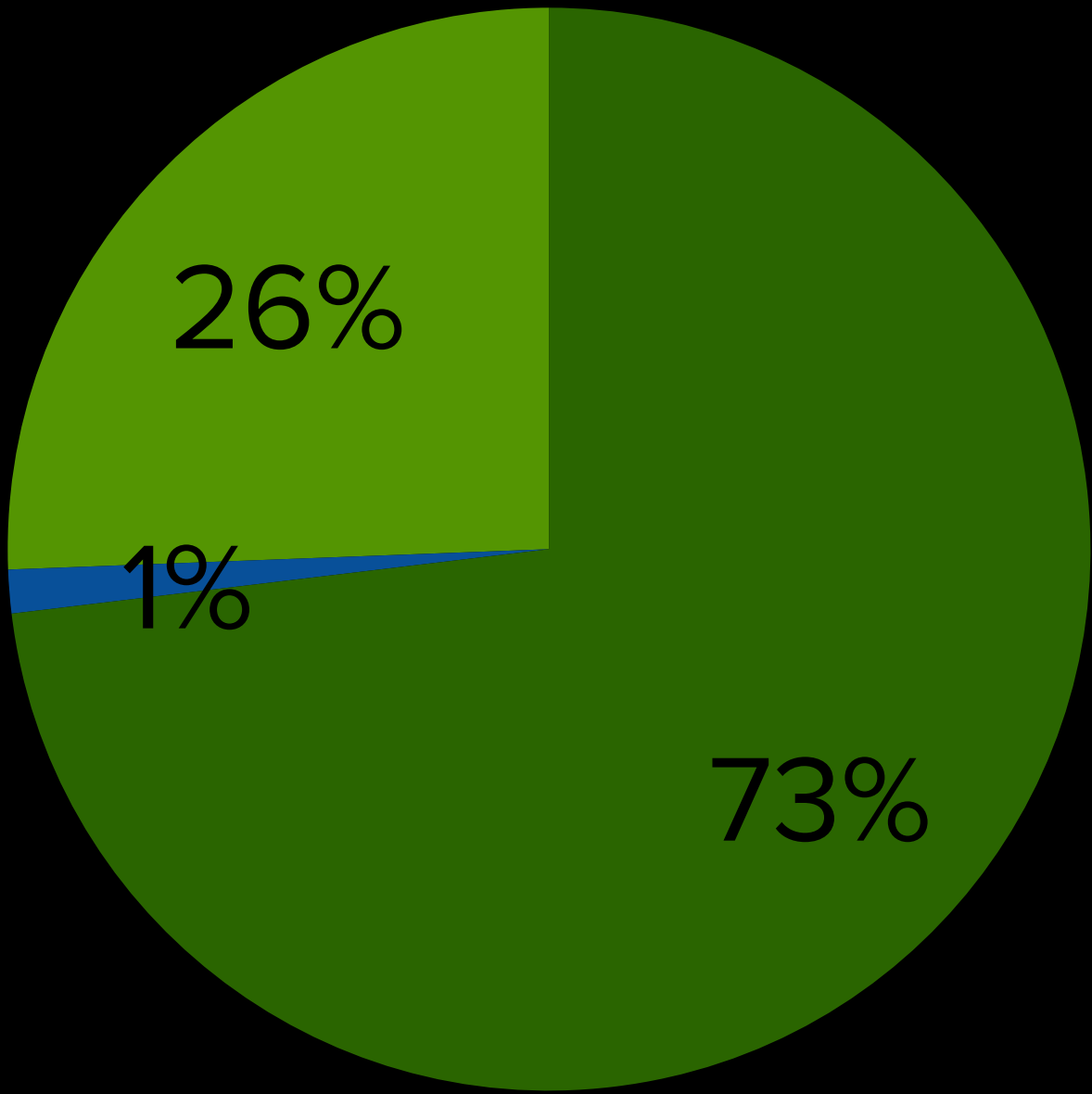


Avg. no. of calls made per booking



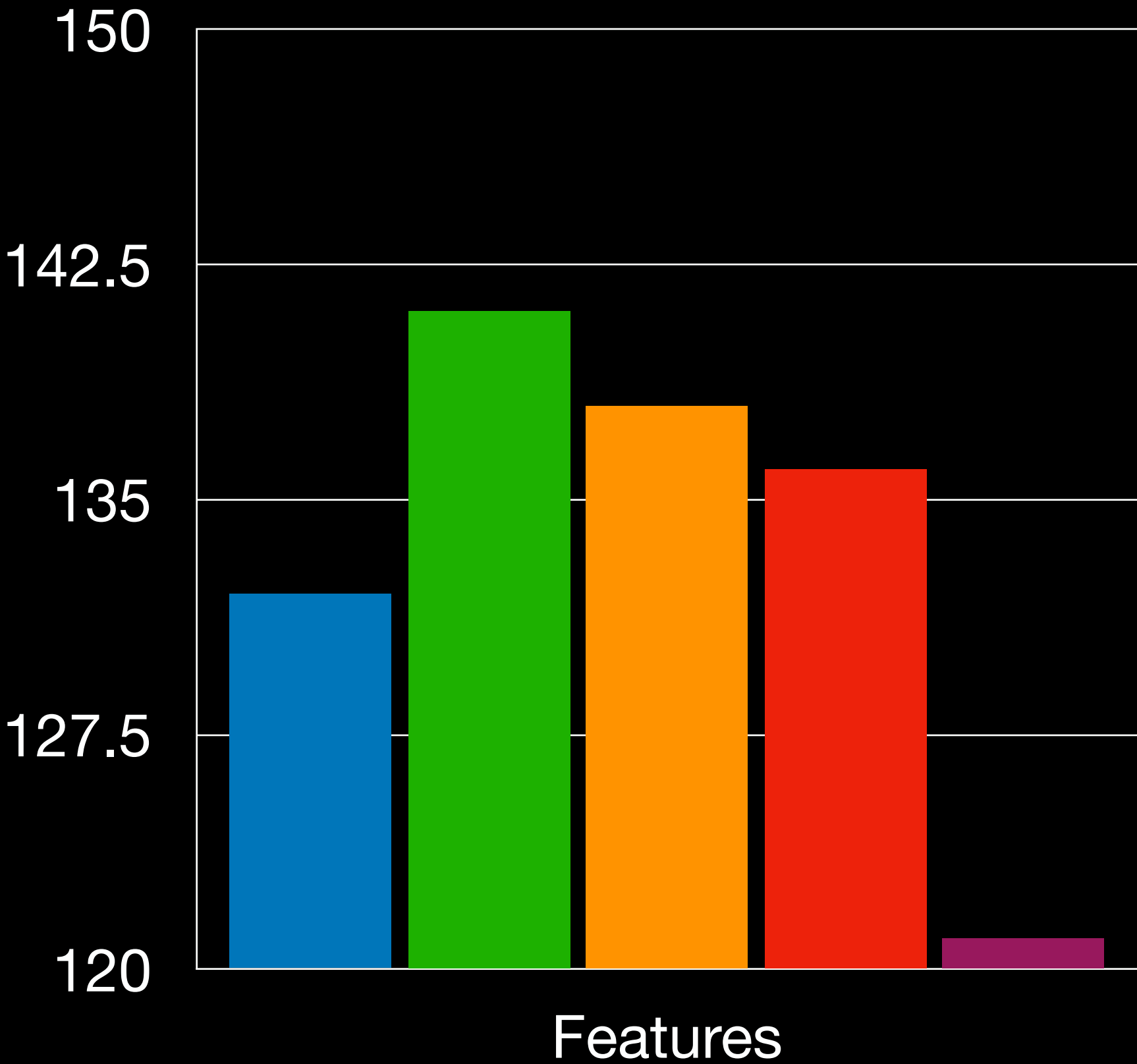
# ANALYTICS FROM THE SURVEY

● Yes    ● No    ● Maybe



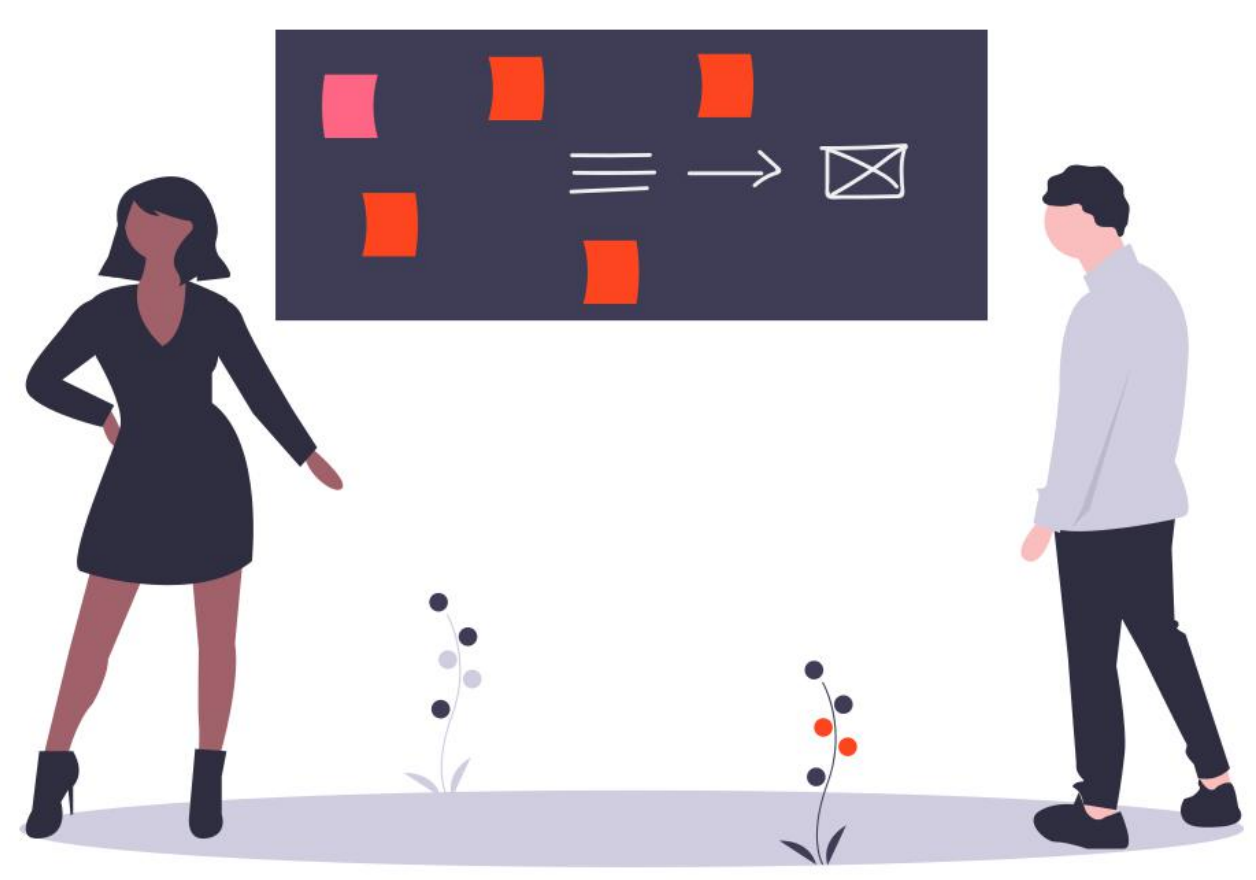
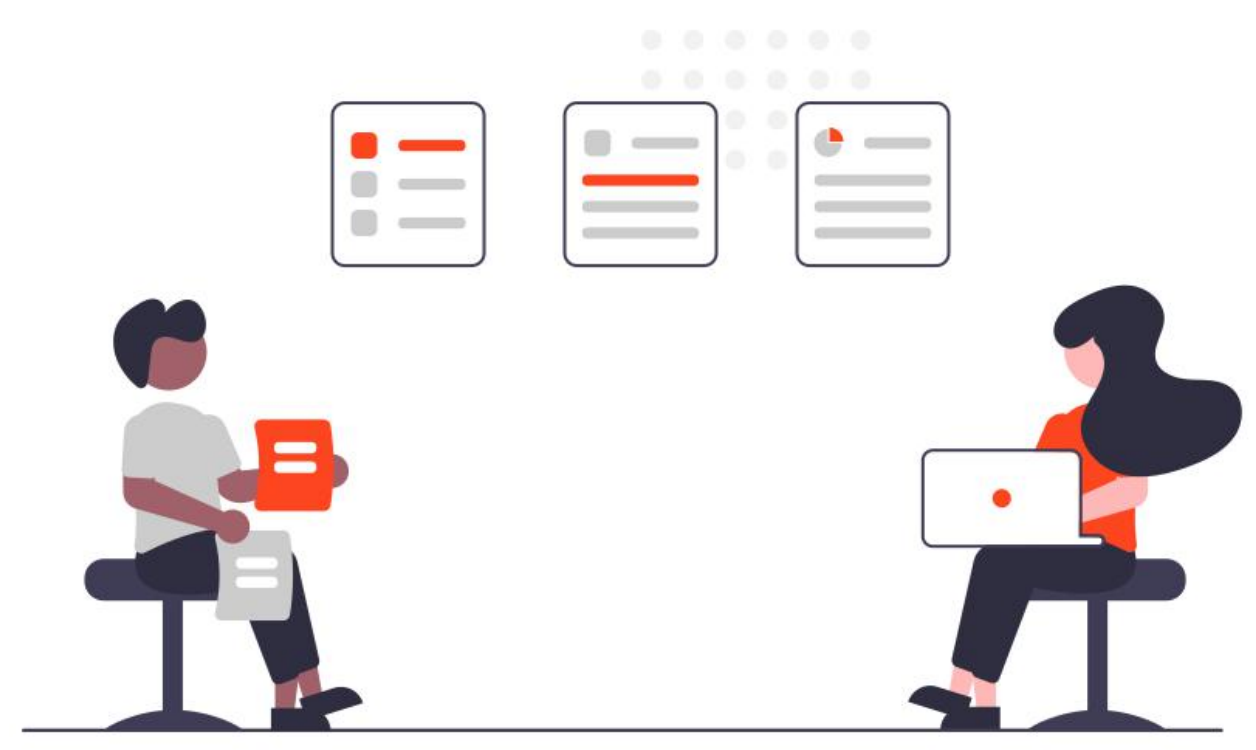
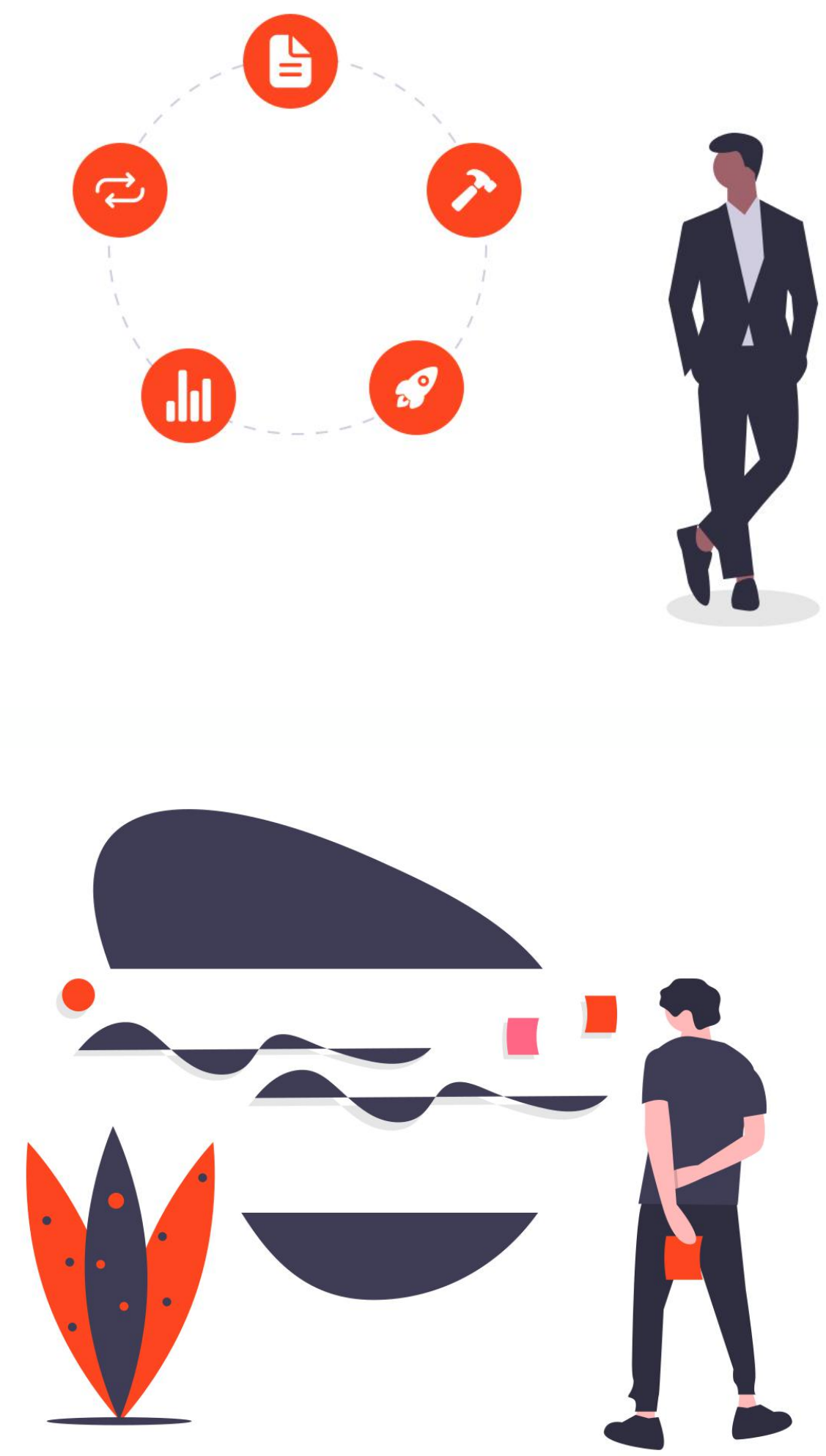
Acceptability of the proposed platform

- Search for Sports Arena
- Search for free timeslots
- Book a Sports Arena
- Cancel Booking
- Rate Sports Arena



Preferable features to have on the proposed platform

# OTHER METHODS





# PROJECT SCOPE

- Sports equipment merchandising.

- Booking time slots with coaches.

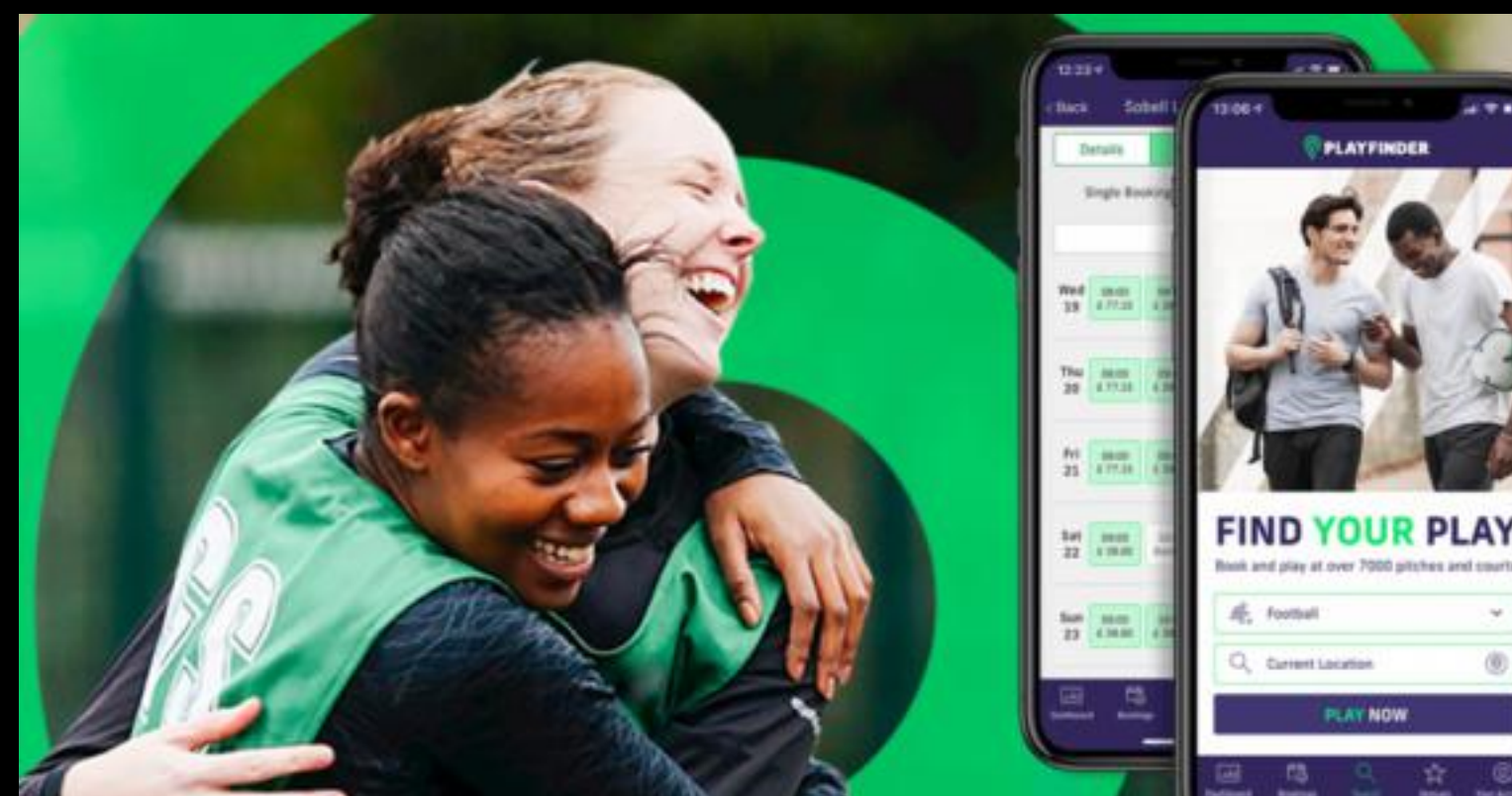
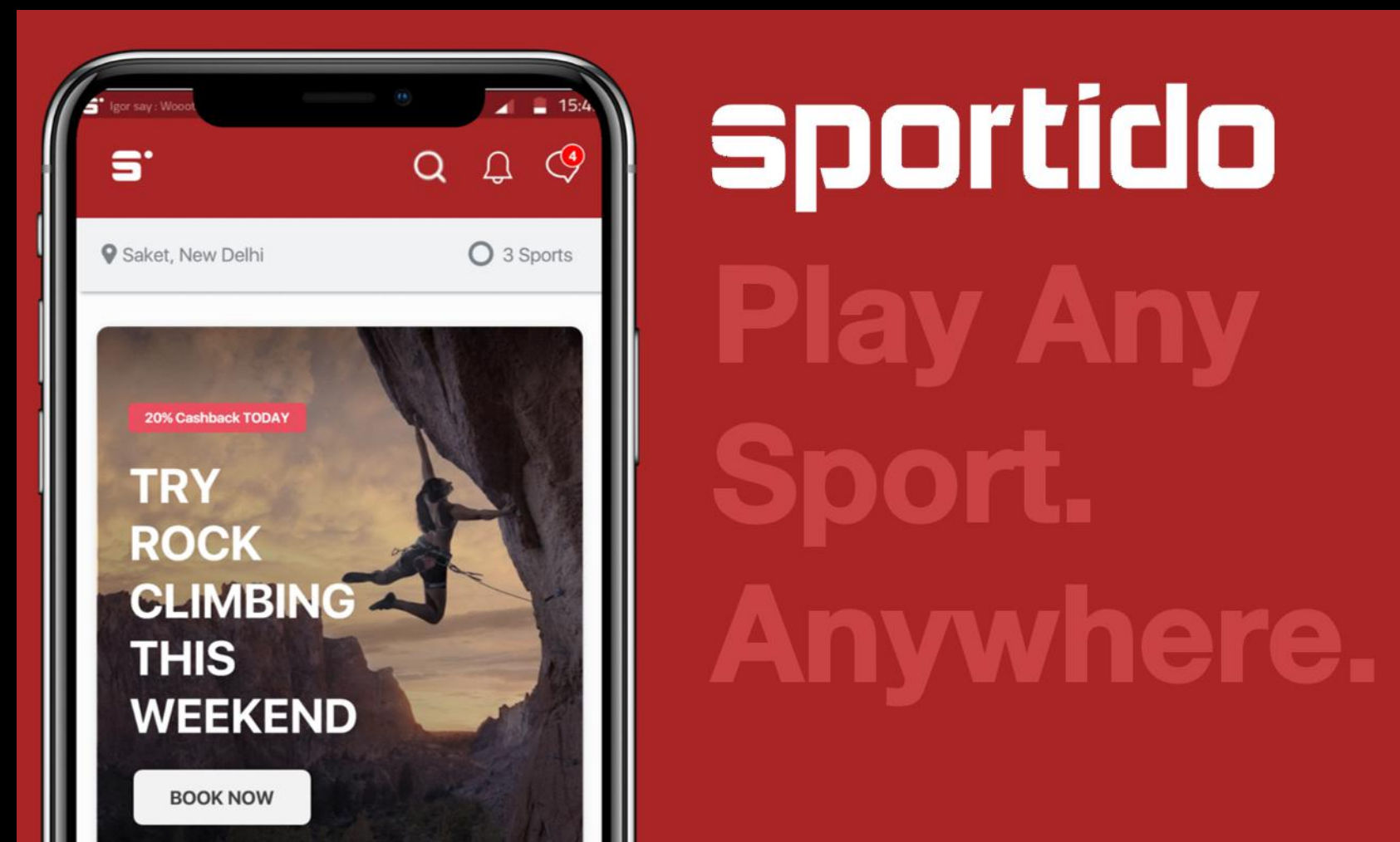
- Booking rescheduling.

- User Registration and Authentication.
- Search for sports arenas/ time-slots.
- Make bookings.
- Cancel bookings.
- Ratings for sports arenas.
- Share bookings.
- View bookings.
- Payment processing.
- Sports arena listing in the platform.
- Analytics generation for sports arenas.
- Notifications to customers.

- Discounts on booking time slots.

- Advertising of sports events (tournaments).

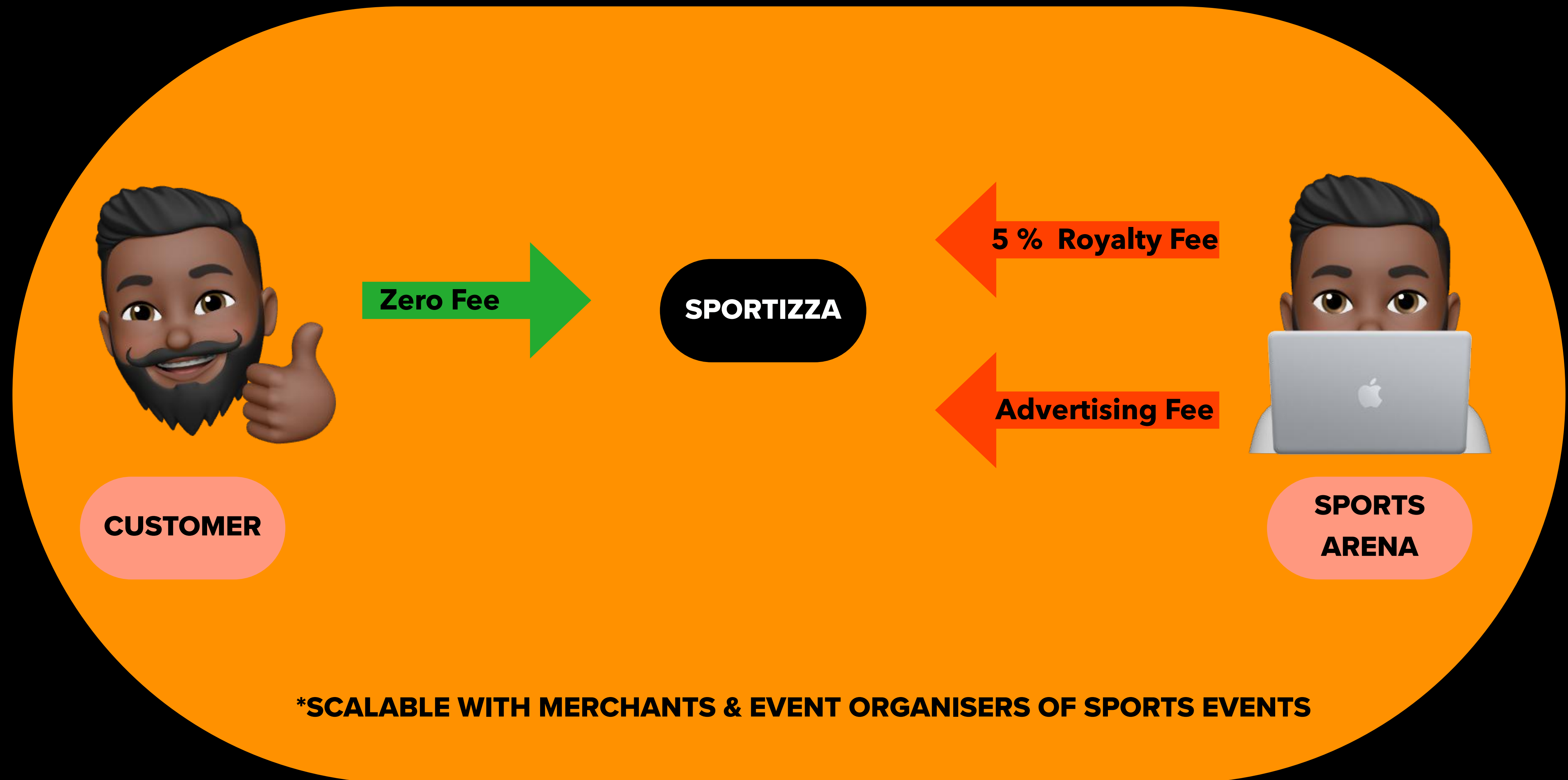
# ANY SIMILAR SYSTEMS?



***“NONE IS AVAILABLE IN SRI-LANKA!”***



# BUSINESS MODEL



# REQUIREMENT ANALYSIS

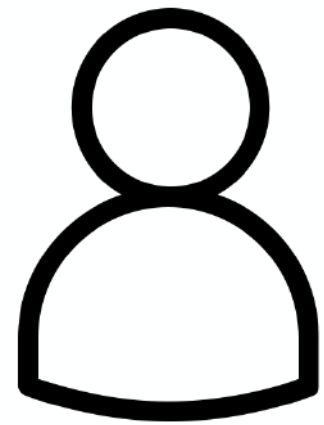


# USER IDENTIFICATION



# ACTORS

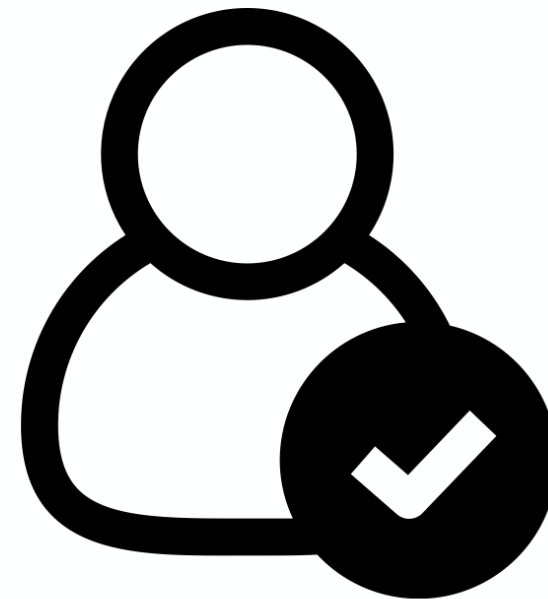
01



VISITOR

- Search for sports arenas
- Ask help/ support desk

02



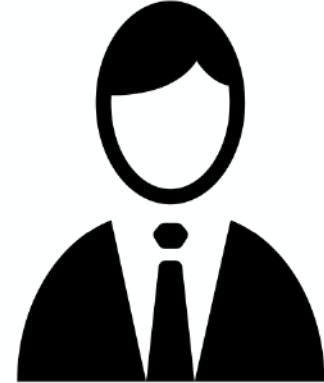
CUSTOMER

- Signup
- Login/ Logout
- Edit profile details
- Search for sports arenas
- Book sports arena
- Do a payment
- Share booking via social media
- Rate sports arenas and provide reviews
- Create my sports arenas list
- Cancel booking
- View my bookings
- Ask help/ support desk



# ACTORS

03



**LOCATION  
MANAGER**

- Register for an account
- Login/Logout
- Edit sports arena profile
- Generate reports
- Choose payment method
- Reply to customer feedbacks and queries
- Booking slots manually
- View bookings
- Emergency booking cancellations

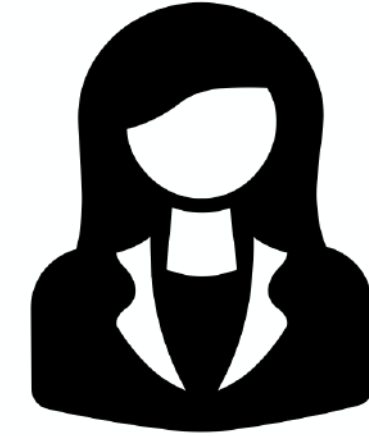
04



**BOOKING  
HANDLING STAFF**

- Login/Logout
- View bookings

05

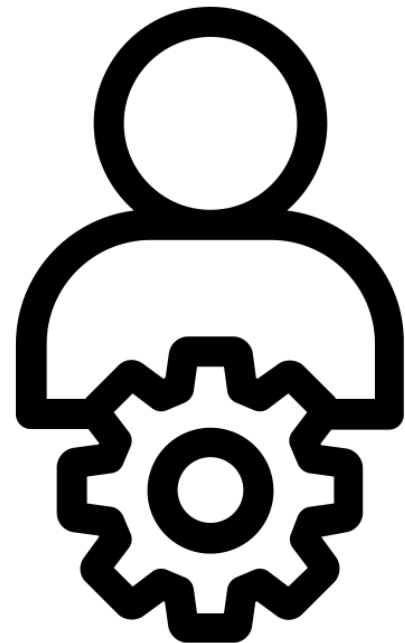


**ADMINISTRATION  
STAFF**

- Register for an account
- Login/Logout
- Edit profile details
- Choose payment method
- Reply to customer feedbacks and queries
- View bookings
- Booking Slots manually
- Emergency booking cancellations

# ACTORS

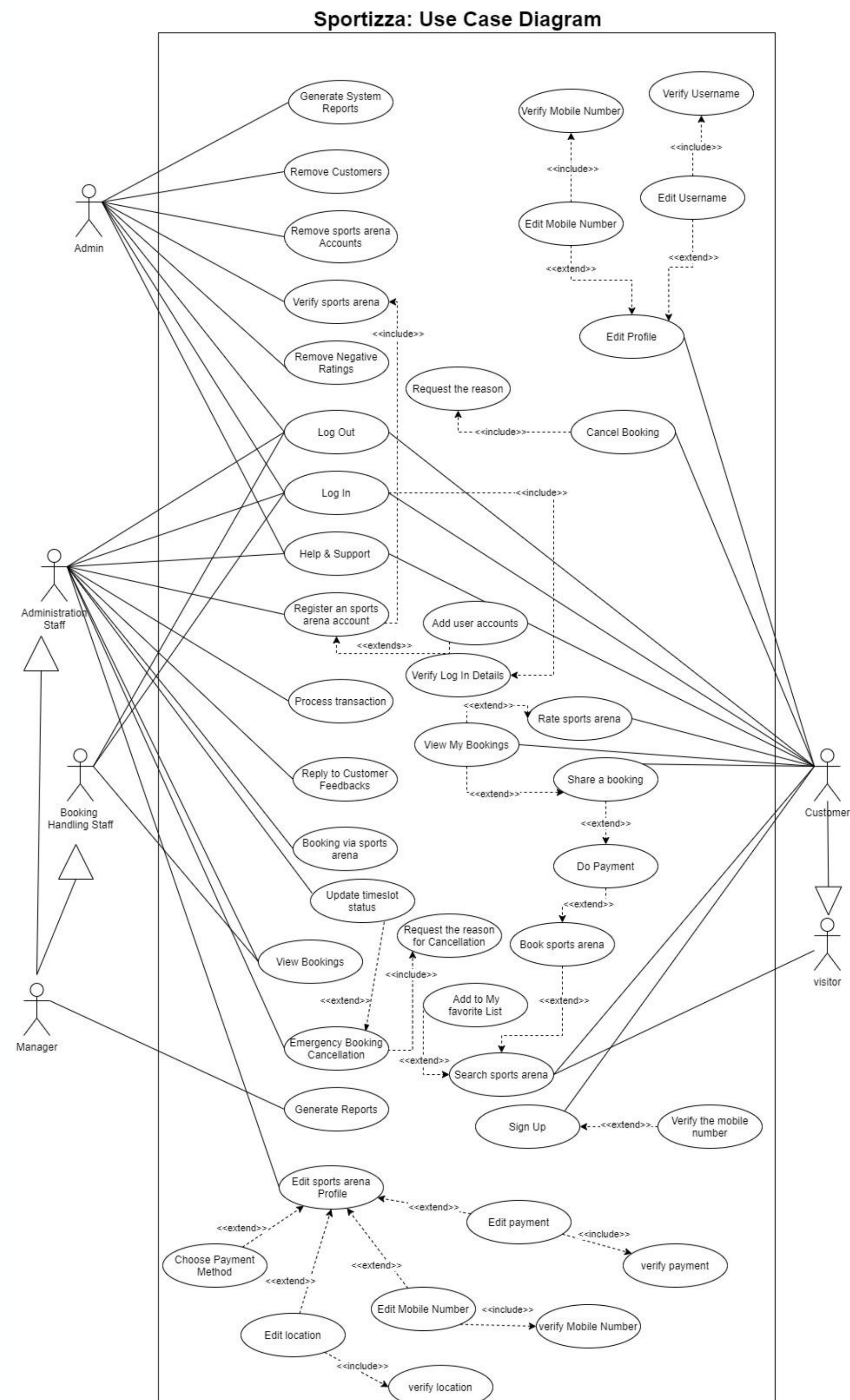
06



ADMIN

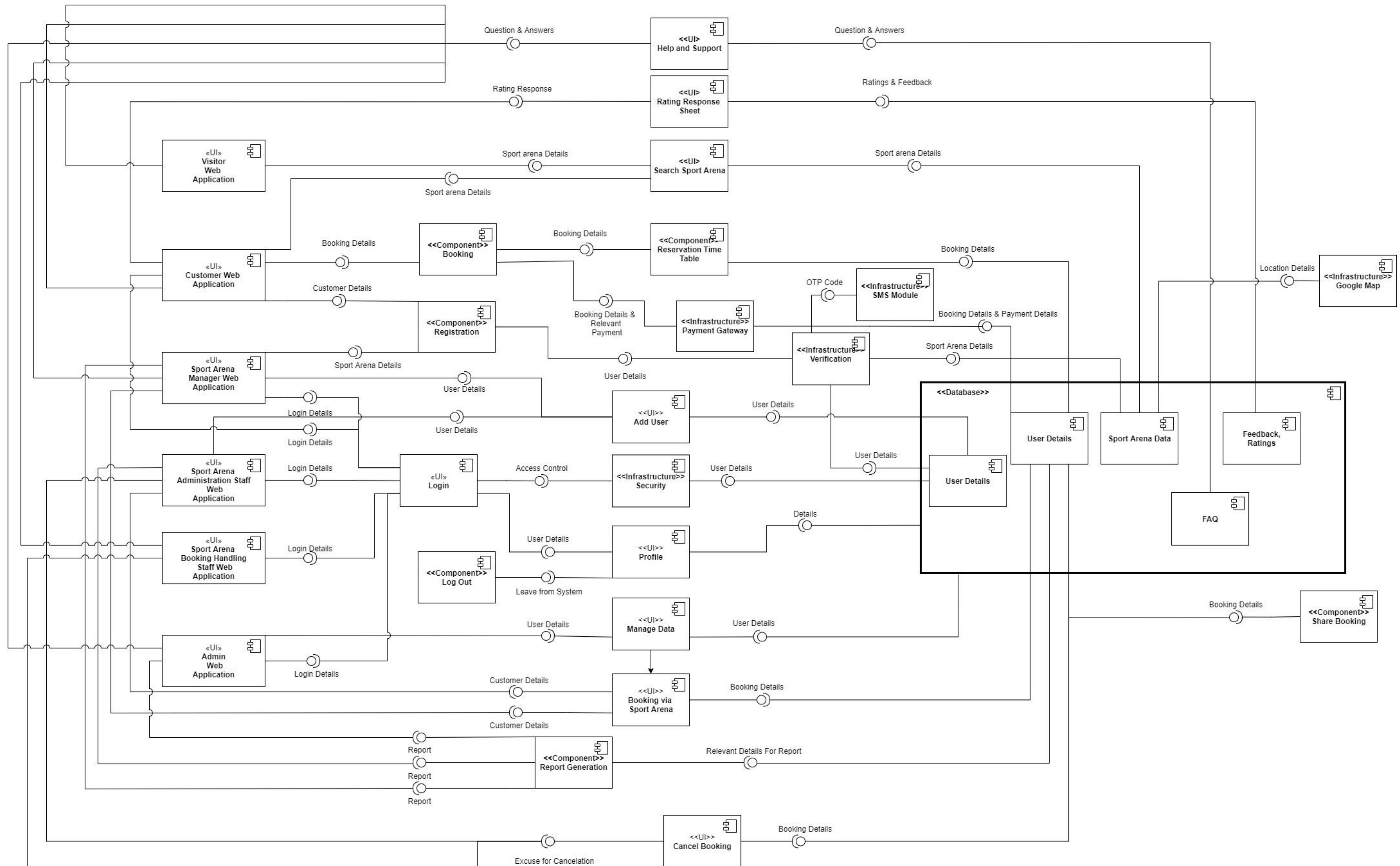
- **Login/Logout**
- **Verify sports arenas for listing**
- **Remove sports arenas**
- **Remove customers**
- **Remove negative feedbacks after assurance by the sports arena**
- **Help & support**
- **Generate System Reports**

# USE CASE DIAGRAM





# COMPONENT DIAGRAM (HIGH-LEVEL ARCHITECTURE)



# NON-FUNCTIONAL REQUIREMENTS

**01**

**SECURITY**

**04**

**PERFORMANCE**

**02**

**AVAILABILITY**

**05**

**TESTABILITY**

**03**

**MODIFIABILITY**

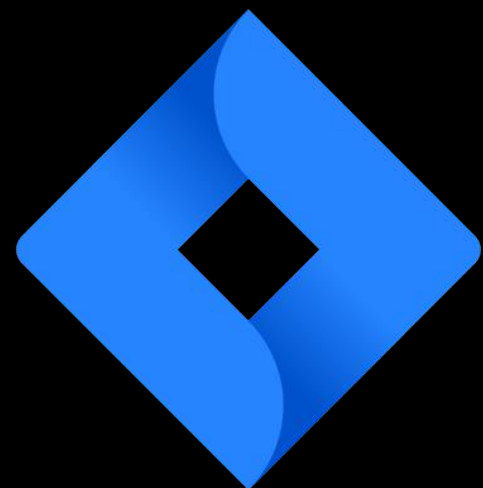
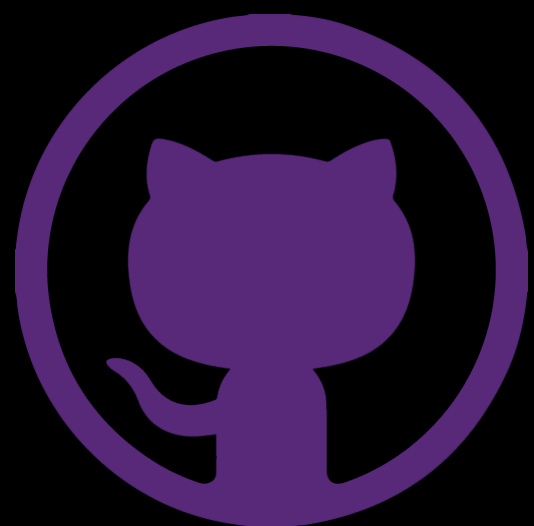
**06**

**USABILITY**

# TECHNICAL FEASIBILITY



- IDEs are free and open source.
- Laptops and desktops are owned by the group members.
- Workbox for offline caching.
- Google Light-house to audit the system.
- Within our knowledge boundary.





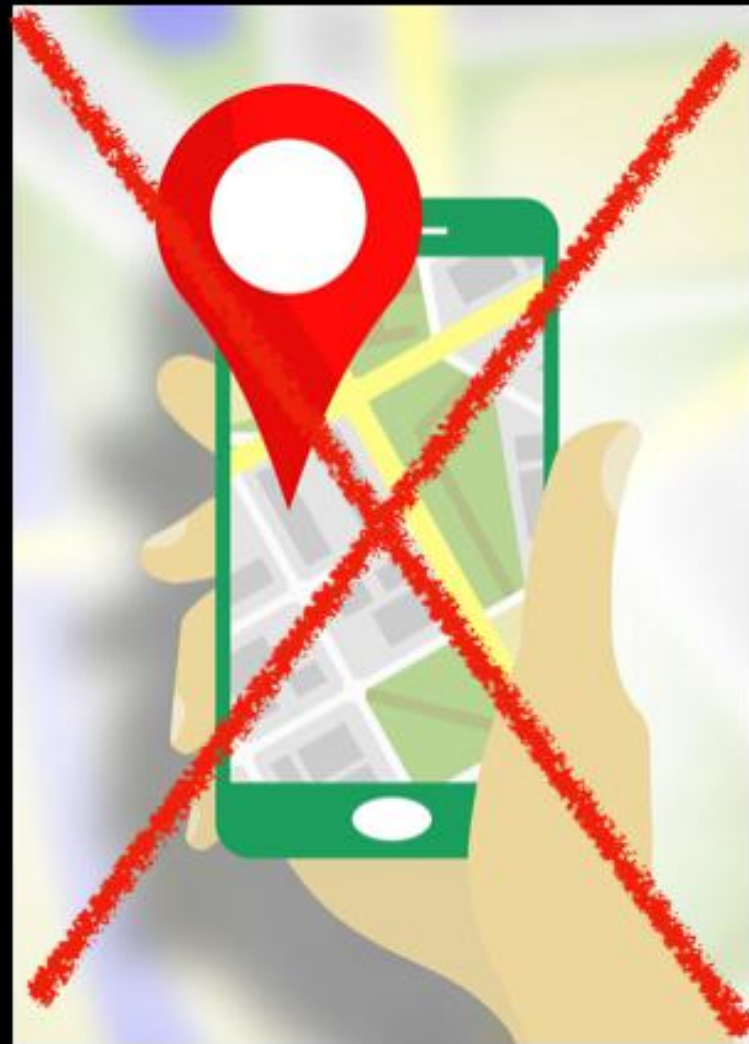
# OPERATIONAL FEASIBILITY

## *Basic Requirements:*

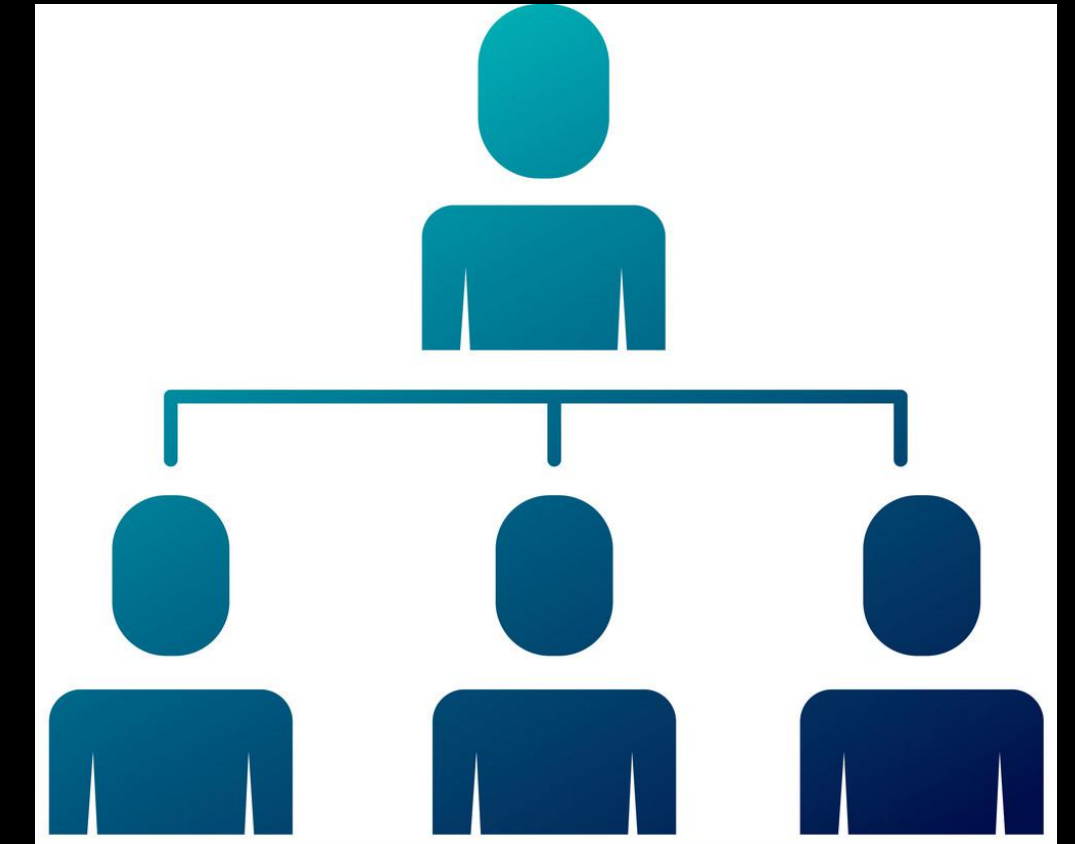
- Basic English & IT literacy.
- A device with an Internet connection.
- Preferably a Personal computer or a laptop for the sports arena's manager and administration-staff.



# LEGAL & ETHICAL FEASIBILITY



- Sensitive data- GDPR laws.
- Hierarchical based login mechanism.
- Secure Online payments 3rd party Application.
- Credit Card information are not stored.
- Customer locations are not tracked.



**PayHere**



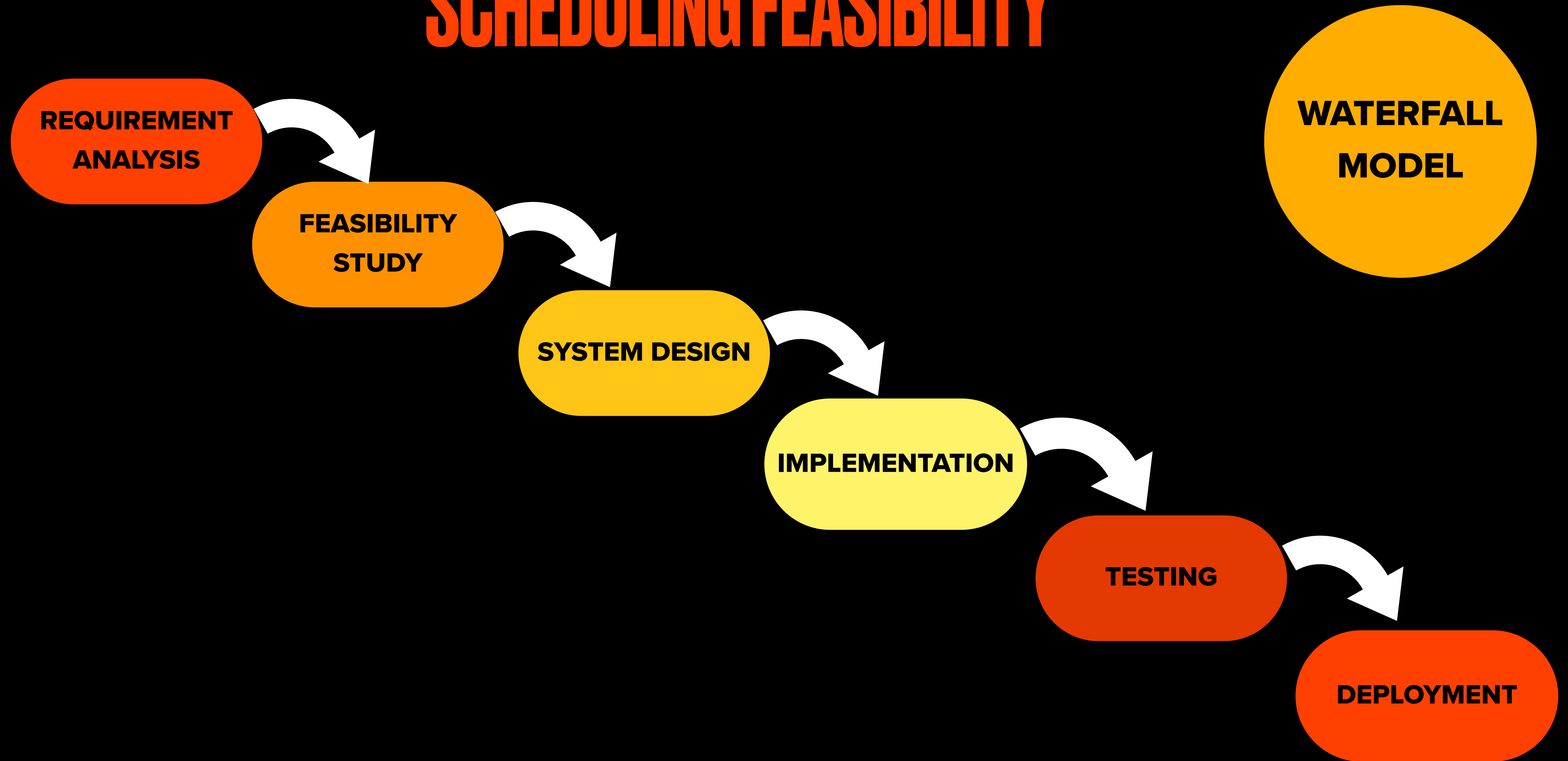
# ECONOMIC FEASIBILITY

- PayHere sandbox (In the development stage).
- Amazon Web Services' Free Tier- Hosting services.
- TEXTIT.BIZ cost 69cents per a SMS- SMS module.
- All other IDEs and softwares used for development are freely available.





# SCHEDULING FEASIBILITY



# BUDGETED TIME

***4 MEMBERS \* 10 HOURS PER WEEK = 40 HOURS PER WEEK***

***40 HOURS/WEEK \* 30 WEEKS = 1200 HOURS***

***RISK BUFFER = 240 HOURS***

***TOTAL BUDGETED TIME = 1440 HOURS***

\*The above time is only a budgeted time and always there can be favourable and adverse variances

# GANTT CHART

[illegible]



# **LIMITATIONS & CONSTRAINTS**

- **CASH PAYMENTS AREN'T HANDLED VIA THE PLATFORM.**
- **BOOKING RESCHEDULING IS NOT POSSIBLE.**
- **GOVERNMENT CONTROLLED SPORTS ARENAS -MIGHT NOT GET REGISTERED IN SPORTIZZA.**

# FRONTEND, BACKEND & DATABASE MANAGEMENT

## FRONT END:

HTML



CSS



JS



## BACK END & DATABASE:



# OTHER TECHNOLOGIES:

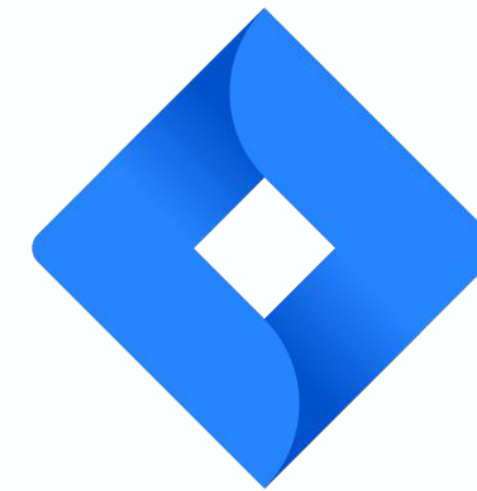
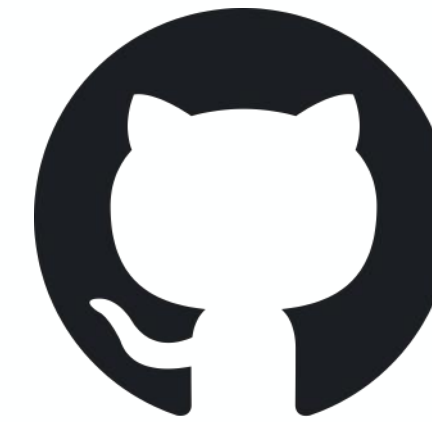
## MODULES:

*PayHere*

 TextItBiz

## OTHER TOOLS:

zoom



## OTHER SOFTWARES:





# WORKLOAD DISTRIBUTION

**SPORTIZZA board**

Search:

TO DO 3 ISSUES	IN PROGRESS 3 ISSUES	DONE 15 ISSUES ✓
<div>sequence customer ✓ SPORTIZZA-22 </div>	<div>Software architecture part 1 ✓ SPORTIZZA-6 </div>	<div>Logo creation ✓ SPORTIZZA-1 ✓ </div>
<div>sequence management ✓ SPORTIZZA-23 </div>	<div>Software architecture part 2 ✓ SPORTIZZA-7 </div>	<div>Proposal ✓ SPORTIZZA-3 ✓ </div>
<div>Er Mapping ✓ SPORTIZZA-24 </div>	<div>ER Diagram ✓ SPORTIZZA-8 </div>	<div>Requirements ✓ SPORTIZZA-2 ✓ </div>
<div>+ Create issue</div>	<div>+ Create issue</div>	<div>Component diagram ✓ SPORTIZZA-4 ✓ </div>

# QUESTIONS?