



CampusSports Manager

Submitted to:

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Software Application Development

Git Repository : <https://github.com/bg-shishir/CampusSports.git>

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Git Repository : <https://github.com/bg-shishir/CampusSports.git>

OVERVIEW

‘CampusSports Manager’ aims at making life easier for students, faculty and the general public who are interested in using the Health Club facilities on campus. Majority of tasks nowadays are shifted to tablets, laptops and smartphones. Our concept revolved around the idea to build an application that would be optimized for use on any mainstream device but will primarily be hosted on the web. We want to build an application that would make it easier for people to explore and use the facilities in the health club, keep track of their progress and courses in the club and even find and meet friends with similar interests.

Using current Software Architecture Development Practices we could build our application from scratch. We adopted AGILE Methodologies such as the Kanban Board and Paper-Prototyping, using this we reached the final view of our project but going through stages such as – Personal Interviews, Persona development, Customer Experience (Journey Map), Story Mapping etc.

We adopted **Software Architecture Development Practices** that helped us to build our application from scratch. We adopted **Agile Methodology Practices** like the Kanban Board and the Paper-Prototyping Approach. We reached the final view of our project by going through pre-determined stages – Personal interviews, Personas, Customer Experience (Journey Map), Story Mapping etc. These stages are described in detail below.

Task Tracker and Workload

Here is a rough breakdown of the tasks and schedules our team took on in the course of this module.

Name	Task Description	Start date	DeadLine	Status	Hours Spent
Nithin	Installation of Firebase, Implementation with AngularJS, Basic CRUD Ops	19-04-2017	23-04-2017	Completed	20
Shishir	Research on Requirement Analysis(5 Personas)	19-04-2017	23-04-2017	Completed	20
Nagaraj	MOSCO and Network Flow / Basic Navigation	19-04-2017	22-04-2017	Completed	20
Adil	MOSCO and Network Flow	19-04-2017	22-04-2017	Completed	20
Anusha	Assisting Nithin	19-04-2017	23-04-2017	Completed	20
Ahsan	Research on Requirement Analysis(5 Personas)	19-04-2017	22-04-2017	Completed	20

Name	Task Description	Start date	DeadLine	Status	Hours Spent
Nithin	Research on Implementation with AngularJS/NodeJS, Basic CRUD Ops	30-04-2017	01-05-2017	Completed	10
Shishir	Research on Implementation with AngularJS/NodeJS, Basic CRUD Ops	30-04-2017	01-05-2017	Completed	10
Nagaraj	MOSCO and Network Flow and start Navigation i.e Hi-Fi Prototype	30-04-2017	01-05-2017	Completed	10
Adil	MOSCO and Network Flow	30-04-2017	01-05-2017	Completed	10
Anusha	Start Drawing of Lo-Fi Prototype	30-04-2017	01-05-2017	Completed	10
Ahsan	Creation of Personas/User Stories with FULL DESCRIPTION	30-04-2017	01-05-2017	Completed	2

Name	Task Description	Start date	DeadLine	Status	Hours Spent
Nithin	Lo-Fi Prototype	30-04-2017	01-05-2017	Completed	12
Shishir	Lo-Fi Prototype, Implementing AngularJS	30-04-2017	01-05-2017	Completed	12
Nagaraj	MOSCO and Network Flow and start Navigation i.e Hi-Fi Prototype	30-04-2017	01-05-2017	Completed	12
Adil	MOSCO and Network Flow	30-04-2017	01-05-2017	Completed	12
Anusha	Start Drawing of Lo-Fi Prototype	30-04-2017	01-05-2017	Completed	12
Ahsan		30-04-2017	01-05-2017		0

Name	Task Description	Start date	DeadLine	Status	Hours Spent
Nithin	HighFi Prototype using WPB	03-05-2017	09-05-2017	Completed	15
Shishir	Assisting Nagaraj in Building HTML Sketeton, User Story Mapping	03-05-2017	09-05-2017	Completed	15
Nagaraj	Building HTML Sketeton	03-05-2017	09-05-2017	Completed	15
Adil	Providing functionality for features	03-05-2017	09-05-2017	Completed	15
Anusha	Documentation	03-05-2017	09-05-2017	Completed	15
Ahsan	Preparing for interview Questionaire	07-05-2017	09-05-2017	Completed	1

Name	Task Description	Start date	DeadLine	Status	Hours Spent
Nithin	HighFi Prototype using WPB, Expereince Map	10-05-2017	11-05-2017	Completed	5
Shishir	Assisting Nagaraj in Building HTML Sketeton, Final Documentation	10-05-2017	11-05-2017	Completed	5
Nagaraj	Building HTML Sketeton	10-05-2017	11-05-2017	Completed	5
Adil	Providing functionality for features	10-05-2017	11-05-2017	Completed	5
Anusha	Providing functionality for features	10-05-2017	11-05-2017	Completed	5
Ahsan	Documentation	10-05-2017	11-05-2017	Completed	2

Name	Total Hours Spent
Nithin	64
Shishir	64
Nagaraj	64
Adil	64
Anusha	64
Ahsan	25

Git Repository : <https://github.com/bg-shishir/CampusSports.git>

Introduction to *CampusSport Manager*

A sport is an activity that is essential for the body and mind. Sports make the human body groom better. The mind of a person doing sports is more healthy, creative and fast in decision-making. CampusSport is a web-based app that can be used by both trainers & users to manage their sports activities. This app is compatible with any smartphone and tablet.

The users can join and explore the available courses. They can check the price and schedules of the courses. Also they can rent sport equipment and book courts for sports like badminton and tennis as well as exploring the type of membership they want by looking into the prices and benefit that membership offers.

STAGE 1- REQUIREMENT ANALYSIS

Requirement Survey

We used a detailed feature or requirement survey to build out our several Requirements. In this detailed survey we got an idea about our various functional and non-functional requirements. Further we performed a Moscow Analysis with our results and on the resulting heat map we got our most important functionalities or in other words the Minimum Viable Product.

Below is the questionnaire that was used.

Features Questionnaire

**Required*

User Information

1. How interested would you be to link your social media (e.g. Facebook) to your account? ** Mark only one oval.*

	1	2	3	4	5	
Least Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Interested

2. How interested would you be to invite friends? ** Mark only one oval.*

	1	2	3	4	5	
Least Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Interested

Account Information

3. How interested would you be in offers and discounts being given? ** Mark only one oval.*

	1	2	3	4	5	
--	---	---	---	---	---	--

Least Interested ☐ ☐ ☐ ☐ ☐ Most Interested

4. How interested would you be in a personal calendar of sports you participate in? * *Mark only one oval.*

1 2 3 4 5

Least Interested ☐ ☐ ☐ ☐ ☐ Most Interested

5. How interested would you be in making a list of your favorite sports you take part in? * *Mark only one oval.*

1 2 3 4 5

Least Interested ☐ ☐ ☐ ☐ ☐ Most Interested

Events

6. How interested would you be in hearing about events being ran? * *Mark only one oval.*

1 2 3 4 5

Least Interested ☐ ☐ ☐ ☐ ☐ Most Interested

Buddy System

7. How interested would you be having someone to go to the gym with? * *Mark only one oval.*

1 2 3 4 5

Least Interested ☐ ☐ ☐ ☐ ☐ Most Interested

8. How interested would you be to find out who's is attending an event? * *Mark only one oval.*

1 2 3 4 5

Least Interested ☐ ☐ ☐ ☐ ☐ Most Interested

9. How interested would you be to message them before meeting? * *Mark only one oval.*

	1	2	3	4	5	
Least Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Interested

10. How interested would you be in competing against your friends for points based on attendance? * *Mark only one oval.*

1 2 3 4 5

Equipment & Space

11. How interested would you be in booking equipment before attending? * *Mark only one oval.*

	1	2	3	4	5	
Least Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Most Interested

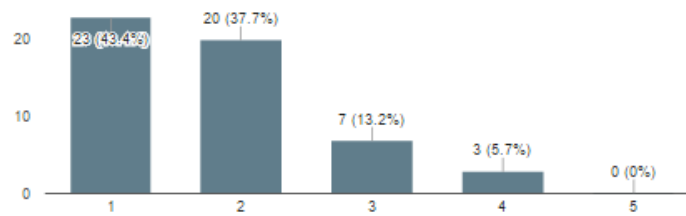
12. How interested would you be in booking space for your sport? * *Mark only one oval.*

1 2 3 4 5

Statistics of Responses

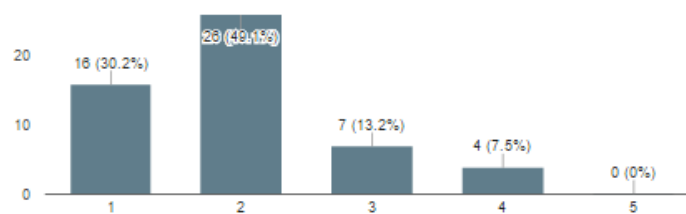
How interested would you be to link your social media (e.g. Facebook) to your account?

53 responses



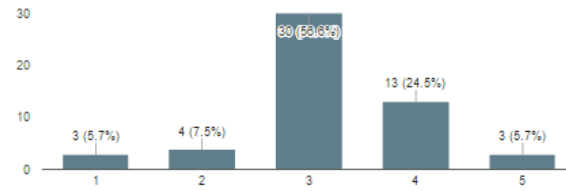
How interested would you be to invite friends?

53 responses



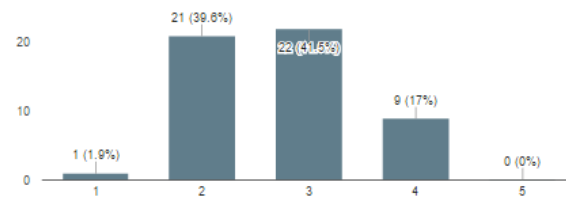
How interested would you be in offers and discounts being given?

53 responses



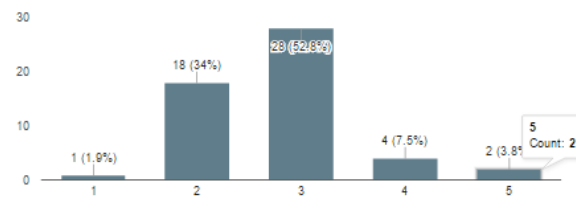
How interested would you be in a personal calendar of sports you participate in?

53 responses



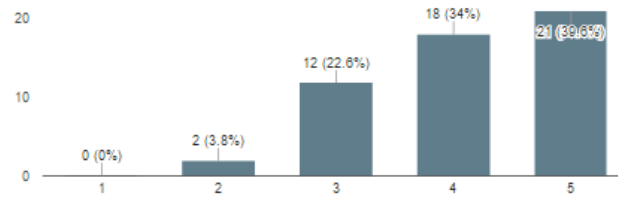
How interested would you be in making a list of your favourite sports you take part in?

53 responses



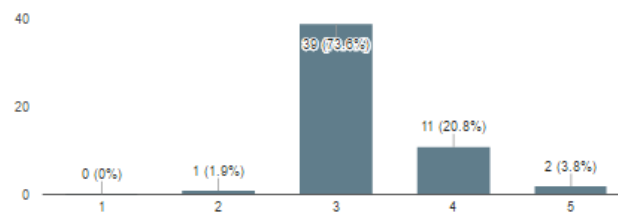
How interested would you be having someone to go to the gym with?

53 responses



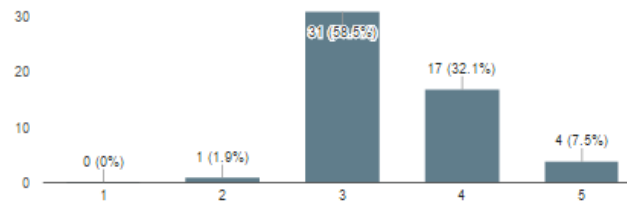
How interested would you be to find out who's is attending an event?

53 responses



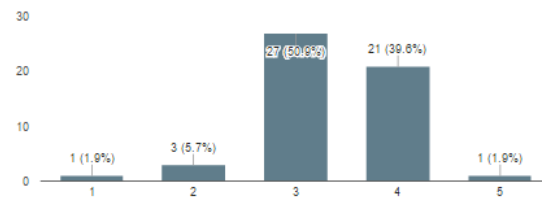
How interested would you be in hearing about events being ran?

53 responses



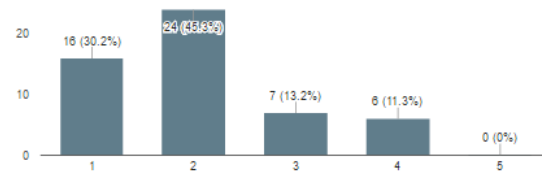
How interested would you be to message them before meeting?

53 responses



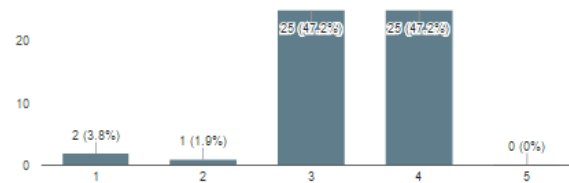
How interested would you be in competing against your friends for points based on attendance?

53 responses



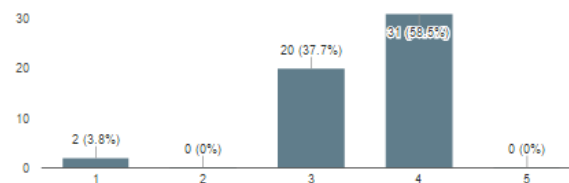
How interested would you be in booking equipment before attending?

53 responses



How interested would you be in booking space for your sport?

53 responses



Response Conclusion

This gave us the base point for the Moscow analysis and we were clear in our thoughts of what needs to be built and further, all the feature is based on the responses which we got.

MOSCOW Analysis

We then performed Moscow analysis on the results of our questionnaire. The resultant table is shown below it forms the basis of our requirement analysis.

Here **Red** would mean it voted “Most Interested” with majority, **Yellow** would mean The results rested around 3 or neither Least or More Interested. The **Green** would mean the majority voted “Least Interested”.

Category	Requirement number	Requirement	Functional requirements	Must have	Should have	Could have
User Registration	1.1	User Information	1. Registration/ Login			
			1.personal Info 2. connect using facebook & fetch detils			
	1.2	Invite & Earn Credits	1.inviting new friends			
	1.3	User Current course	currently registered activities			
Book	2.1	Courses n Trainers	Activites Booked			
			Courses and Trainers Booked			
			Track Record			
Events & Courses	2.2	Equipments buy	1. Book Trainers, Coach			
			2. Book Courses 2. free trail classes,etc			
	2.3	Facilities	1. lists of all equipments			
			1.list of courts available free and price 2.based on trainer availability; select activity			
Account Informtion	2.4	Booking Sport Activ	1. Book games, Matches			
			2. Current match or game statistics i.e people. Equipment etc			
	3.1	List Display	1.list of all Events and Courses and Sports			
			2.Kids events, programmes			
Explore	3.2	Kids & Summer	3.lists of all tournatments			
	4.1	Support	1. Feedback			
			2. Fees paid/ to be paid, type of member etc 3.About Us			
Login	4.2	My Calender	1.My class- date booked-upcoming & past			
			2.currently registered activities			
	5.1	Training Details	1.sports events			
			2.training			
Find Buddy	5.2	Favorites	1.courts & timings & games			
	6.1	user authentiction	1. authenticate type & information of user			
attendance and report	7.1	Find and Contact	1.<Place, Activity, Age, Level> find using parameters			
			1.buddy can text each other who are already buddy			
	7.2	hat/ Social Med. Option	1.<Place, Activity, Age, Level> set your parameters			
			1.share his activities on social sites			
Payment	8.1	report	Track Record and Workout Report from Trainers			
			Monthly Receipt and Attendance generation			
Payment	9.1	pament detils	online payment gateway			

Explanation of Functional Requirements

User Registration

This part collects user information. User is asked to enter their general information so that they could be registered on the website.

Registration/login

This button leads to two activities. User can either login if he/she is already registered or if they are new user they can register themselves by entering their general information.

Personal Information

User here can enter asked personal information by reading the tabs in order to register him/herself.

Connect using Facebook & fetch activities

BY using this option user can enter his all general information via face book. User is registered by information already provided on face book.

Invite new friend

User can also invite his/her friend to join in with them via sms.

Currently Registered Activities

User can see activities he is currently registered in the health club

Activities Booked

User can see history of booking details.it can be courses of various activities he/she had been part of.

Courses and Trainers Booked

User can collectively see various courses he/she is registered in and trainers he/she had appointments with.

Track Record

User here can see activities he's been registered and can see track record of all those activities.

Book

In this part user can register him/herself with various activities with what is happening or being offered by the health club. User can also choose activities with various trainers, also user has option to rent various equipment being offered by the health club

Book Trainers / coach

User has option to look various activities that is being done by the coaches. He can then select that coach to register for that activity

Book courses

User here can see various activities being offered by the club it could indoor and outdoor.

User can then Select them according to his/her interest and get registered.

Free Trail Classes

User can register for various trail classes if he/she wishes to be a part of .if he/she likes it they could join it.

List Of All Equipment's

It list all the equipment's user can rent which health club has to offer.

List of courts available free and price

User can see list of available courts which he/she wants to book and prices of them

Based on trainer availability

User has option to see all trainers available and the training they have to offer. User can then select trainer of his/her choice and contact them via email

Book games, Matches

User here has option to book various games and matches in the court

Current match or game statistics

User here can see booking of courts and numbers of players in that match

Events & Courses

User here can see all the events that are happening and will happen in the health club. Furthermore they can register them if they wish to participate in it.

List of all Events and Courses and Sports

User here will be able to see all events that's happening ,User can also see various courses that's being offered by the health club and user and take part in various sports activities

Kids events, programs

This tab shows user with various kids events and programs in which kids can participate

lists of all tournaments

user can see all the list of tournaments which club has to offer. Further user can participate in those tournaments

Account Information

User here will be able to see the details of his account. He/she will be able to see kind of and numbers of activities they are registered in. Furthermore user will have calendar option where he/she will be able to see in detail activities.

Feedback

User has option to give feedback about

Fees paid/ to be paid, type of member

User here will have option to check fees he had paid and fees he have to be paid and also type of membership he has

My class- date booked-upcoming & past

User here will be to see dates of classes he/she is part of in form of calendar and also events that has happened and will happen.

Currently registered activities

User here has option to see number of activities he is part of

Explore

In this option user can explore the various activities, events, trainers and timing of all the things. This part is in depth details of all above-mentioned things.

Sports Events

User here can see detail of all the sports events that are being offered by the health club and can participate.

Training

In this section user can see list of trainers and the training they have offer. User can then contact them.

Courts & Timings & Games

This section will show various courts and their respective timings also it shows what type of games are being

Login

This section is self explanatory. Registered user here will be able to login and check their accounts

Authenticate Type & Information of user

This sections authenticates user and shows information of user

Find Buddy

In this section user will be able to find a person of same likeness and various level of expertise in Sport activities. User can use various filter to filter out the result. If user doesn't find any one of same interest then he/she can write about the sports buddy they looking for and post that as add in find buddy section

Find using parameters

User here has option to filter out there interest

Chat option

user here has option to chat with their sports buddy

Place an Add

User here can post his interest and put advertise

Achievements

User here has option to put achievement he/she has

Attendance and report

This section shows user their attendance. It gives details in number of days they attended the specific activities they were part of. It is generated in the form of report. Report then can share either with user or with trainer

Track Record and Workout Report from Trainers

User here is provided with his/her workout reports

Monthly Receipt and Attendance generation

User here can see his/her monthly slips and their attendances

Payment

User here can make online payment for the activities he/she is part of and for becoming a member

STAGE 2- PERSONAS

Introduction to Personas

Based on intensive qualitative and quantitative user research, we derived Personas from several Interviews from current users of varying expertise levels, potential users, parents, current Health club Administrators and faculty. We built our analysis by collecting data about the individual such as:

- Basic information such as age, profession, character, marital status etc.
- Background
- Motivation
- Physical Activity History
- Interested Activities
- Challenges
- Goals and Preferences

The data collected during this phase helped us to identify various target user groups and in developing our stories further. To be more precise and thorough we included a statistics such as the various Devices Owned and Used by the Users to give us a better Idea of the users affinity to using technology.

PERSONA 1

Robert Finch:

A Brief Overview

Robert T. Finch, born in Tennessee, USA is an American who moved to Heidelberg, Germany in 2016. He is 25 and is working as Developer with a software company near Heidelberg. He has joined the CampusSports to use the Court and Swimming facilities. He is an avid footballer, and has been playing the sports for 10 years. He would love an application that could help him manage his Health Club profile and book the courts available for football.

Mr. Finch says:

“As a quite resilient and self-motivated person I have a routine to help me remember my workout plan and football schedule in the gym. I am unaware of an application that will help me keep track of my courses and booking courts. Being able to use the application on my mobile is important as I only use my computer at work”

PERSONA 2

Nikita Kalyan:

A Brief Overview

Nikita Kalyan (name held upon request) is 23 years old and was born in Bangalore, India. She moved to Heidelberg, Germany to pursue her Master's degree in Environmental Engineering. She completed her Bachelors in Chemical Engineering in Bangalore, India and worked for an IT firm for a year and a half. She regularly uses the health club for Cardio, Badminton and Fitness Courses. She is a foodie, a nature lover and she loves to travel.

Nikita says:

"As an active and self-motivated student I am always of looking for new ways to get into fitness, I am unaware of an application that links my profile to my health club that would help me find friends, join event and courses and in general keep track of my schedule"

PERSONA 3

Surya Guttimukulla :

A Brief Overview :

38 year old Marketing Analyst in working in a consultancy in Germany. My hobbies are running marathons and swimming. I also enjoy participating in tournaments and yoga. Other than that most of time goes in taking care of my son. After working for 2 years after my Bachelors in India, I moved to Heidelberg for work in a consultancy here

Surya Says:

“I am a middle age family man, and my main interests are sports like Swimming and Marathons. All these facilities are available in my health club but a good way to manage and schedule them is something I am yet to find”

STAGE 3- INTERVIEWS

USER INTERVIEW TRANSCRIPT 1

Basic Information

Name: Robert Finch

Age: 25

Location: Heidelberg, Germany

Background

1. Could you please tell us about yourself?

Answer: I am 25 years old and was born in Tennessee. I then started a web development company which I sold and then started working for a software company as a Developer, after working for 2 years, I moved to Heidelberg in March 2016 and have continued to work for the same company since.

2. Could you please tell us briefly what you do in your free time? What are your hobbies?

Answer: I like to read a lot, mainly newspapers and books and I like to watch sports on TV.

3. Tell us a little bit about your professional life? What kind of work do you do? Would you say you are active?

Answer: During my Job I general have some travelling to do around Germany. At least one flight or long distance train a month. I mostly travel to Berlin, Hamburg and Stuttgart, last week I was working in Saarbrücken. Even though there is some travelling, it is mainly a desk job.

**4. When did you start and how did you get interest in Working out and Football?
And how often would you say you use the health club?**

Answer: I first started playing football with my brothers at a very young age, then in high school I joined the football team when I was 15 and in my final year I was captain. During this time we had a strict workout schedule. My love for Football and fitness has continued ever since. Apart from the time I am travelling which is maybe a week in a month I use the gym facilities daily and play football as and when my friends get together and find a place to play.

Challenges and Goals

1. What do you think is your biggest hurdle in playing Football or Working Out?

Answer: I really don't think I have a challenge at all. Remembering which course I have for the week and what new courses are available is sometimes a problem. A way to see which courts are free and booking them is hard when you don't live close to the health club.

2. Do you have any day to day goals that need to be achieved?

Answer: My daily goals vary depending on the course I am doing at the club, apart from this I do weightlifting and burn around 800 Calories totally. We also play football a few days a week.

3. Do you have to keep track of your activities or sports?

Answer: Not really, only if I do a course then I need to know the schedule, but otherwise to the gym and football I go as per my set routine.

4. Are you facing any problems in achieving your goals?

Answer: Not particularly now, it's just a few inconveniences like not being able to book a court or even seeing my profile and what I am involved in at the health club.

Motivations

1. What motivates you into achieving your day to day goals? (Incentive, fear, achievements)

Answer: I would say I am motivated mainly by a sense of achievement with regard to my fitness, I am quite self-motivated and love playing in team sports or helping my partners in working out.

Technology

1. How many smart devices do you own? (Eg. laptop, smart phones, tablets etc.)

Answer: I have one smart phone and a laptop which is issued by the company. I also have one laptop for personal use and an iPad for reading and entertainment.

2. How often do you use your mobile or laptop?

Answer: I am actually on my laptop for pretty much the entire day, at work on my companies and at home with my personal one. It may be that I don't use the iPad at all for weeks, especially while travelling. I am not too attached to my smart phone and use it mainly for communication and sometimes go in social media.

Justification: The amount of time users spend on their devices helps us to choose a specific platform to develop the application.

3. On an average, how much time do you spend surfing the internet? (Like social media, blogs etc.)

Answer: Well I use it more on a weekend. Usually an hour or two on a working day and about four to five hours during the weekend.

4. Do you think using a website that works readily on all your platforms is more convenient than downloading individual mobile apps?

Answer: I would say that it depends on the application in question, since these days the Google Apps and WhatsApp have become unavoidable, especially when I

am travelling. But on a daily basis I would like to simply use the same website as it works well on all platforms.

5. If there was a web application linked to your health club, would you use it and what you expect from it?

Answer: I think I would use for sure, especially if it allowed to do things like keep track of my activities, or even book courts, courses and trainers online.

6. Would it make your life easier if you could share your information with a trainer or nutritionist?

Answer: Well honestly not really, as I have my own routines and habits with my workouts and my diet and that seems to be working well for me. But at the same time it is a good feature to have.

7. What do you think would help you better?

An application that educates you on your activities and schedule and lets you use it interactively to make bookings? OR Would you like that it simply collects and displays data, such as schedules, list of events, courses? OR a combination of both?

Answer: I think it will be great if I book courts for a later date, but other than that if it simply stores my profile and displays my activities I would be happy.

Justification: This will help us to decide whether the application should be information centric or feature centric

8. What medium would you prefer to have the data presented to you? Would you prefer a mobile application or a web service?

Answer: Preferably both. But a good web service is what I would use as I am mostly on my laptop.

9. One last question before we conclude. If the app could connect you with other enthusiasts and let you find partners to play sports or take courses with, would that be something you would like?

Answer: I think it would help if I am able to find partners online, but I would not like it to be another social media platform.

This concludes the user interview. Thank you so much for making yourself available for this interview. We hope that with your inputs and feedback, we can develop an application that would truly help you.

USER INTERVIEW TRANSCRIPT 2

Basic Information

Name: Nikita Kalyan

Age: 23

Height: 167 cm

Weight: 64 kg

Profession: Student Marital Status: Single

Location: Heidelberg, Germany

Character: Friendly, enthusiastic, determined

Background

1. Could you please tell us your name and a little bit about yourself?

Answer: I was born Pune, India and completed by Bachelors Degree in Chemical Engineering, after that I worked in a Pharmaceutical company for a year. I then moved to Heidelberg, Germany in 2014 to pursue my Master's in Environmental Engineering

2. Could you please tell us briefly what you do in your free time? What are your hobbies?

Answer: I love hiking and travelling. I also play a lot of badminton and constantly look for new fitness and yoga courses I can join. I am also a huge foodie and trying out many cuisines.

3. Tell us a little bit about your professional life? What kind of work do you do?

Answer: As I am doing my Master's, I don't really travel that much. My day varies between classes, badminton, some course or the other and my room.

4. When did you start and how did you get interest in your Fitness activities? And how often would you say you use the health club?

Answer: Well my father was a professional badminton player, so I've been playing from a very young age. My mother introduced me to Yoga when I was about 17. Since then I've tried many different types of yoga and dance workouts. I do Yoga in my room every morning and use the health club every other day for some basic cardio. I also try to play badminton whenever I can, if I manage to find a partner.

Challenges and Goals

1. What do you think is the biggest challenge you face in your day to day life with regard to your condition?

Answer: I think the biggest challenge I face is to find somebody to play badminton with or take some courses together. Since I am new here I don't have many friends and the few I do have are not very interested in fitness activities.

2. Do you have any day to day goals that you must complete?

Answer: Well apart from trying to exercise regularly not really. Just badminton for fun sometimes. I also love exploring new fitness courses that I can try out.

3. So have a need to keep track of your activities or sports at the health club?

Answer: I would say that it would be helpful if I could.

4. Are you currently facing any problems in achieving these goals?

Answer: I guess it's not always easy to find a partner to play baddy with. Oh and a way to check out new courses and join them online would be cool.

Motivations

1. What motivates you into achieving your day to day goals? (incentive, fear, achievement)

Answer: I guess I'm most afraid of getting fat later, I wouldn't want any health issues. Plus my diet right now is not exactly great so that really motivates. So yeah Fear I would say.

Technology

1. Do you own any smart devices?

Answer: I have a notebook for college work and entertainment and a smartphone.

2. How often do you use your mobile or laptop?

Answer: My phone is always with me so I use it a lot, But I wouldn't say I'm too tech savvy. All my work is on the laptop so I'm almost the whole day.

3. Approximately how much time do you spend on your mobile or on your laptop?

Answer: The full day in college and then at home, so around 5 hours on the laptop and 3 to 4 on my phone.

4. Would you say you surf the web quite often in a day?

Answer: Well I'm active on Social media, generally with my laptop so about 3 hours on Facebook, 9gag and other stuff.

5. Would you say that using a website is convenient than downloading an app?

Answer: Well not really, I think an app once downloaded is much faster than using a website. But for quick browsing of information or booking something, websites would be quicker as I am also on my laptop a lot.

6. If there was a good web application linked to your health club, would you use it? And what would you expect from it?

Answer: Yes definitely. My current one just a basic blog type website. I'd like to see some sort of social media aspect as well as a way to book courts and stuff.

7. Do you feel that shifting from the Facebook group to the website for discussion and updates would be helpful?

Answer: Not really. The group works fine, but if it was there I'm sure I would use that to find courses, meet people and stuff.

8. Would it make your life easier if you could share your information with a trainer or nutritionist?

Answer: No. I don't have a trainer and I would not want to share my health club with him or her.

9. What do you think would help you better?

An application that educates you on your activities and schedule and lets you use it interactively to make bookings? OR Would you like that it simply collects and displays data, such as schedules, list of events, courses? OR a combination of both?

Answer: I guess a combination of both would be good.

This concludes the user interview. _Thank you so much for making yourself available for this interview. We hope that with your inputs and feedback, we can develop an application that would truly helps you

USER INTERVIEW TRANSCRIPT 3

Basic Information:

Name: Surya Guttimukkala

Age: 38

Height: 164 cm

Weight: 62 kg

Profession: Product Manager in SAP, Walldorf

Marital Status: Married

Location: Heidelberg, Germany

Character: Friendly, enthusiastic, determined

Background

1. Could you please tell us your name and a little bit about yourself? Also what are some of your hobbies?

Answer: I am a 38 year old Marketing Analyst in working in a consultancy in Germany. My hobbies are running marathons and swimming. I also enjoy participating in tournaments and yoga. Other than that most of time goes in taking care of my son. After working for 2 years after my Bachelors in India, I moved to Heidelberg for work in a consultancy here.

2. Tell us a little bit about your professional life? What kind of work do you do? Are you active?

Answer: Well I do travel around a bit, maybe a few days a month. But still it is primarily a desk job, I generally use my laptop so I even work from home often. I would not say I am active during work hours but I make it a point to walk as much as I can, I even use a standing desk.

3. What made you take interest in these hobbies and activities?

Answer: Well I've been running marathons and swimming for 6 years now, I started first at home and have been addicted since. I also enjoy Zumba courses and since am ready to try anything new. I also love yoga for the peace my mind it gives me as my work life is quite stressful.

Challenges and Goals

1. What do you think is the biggest hurdle with respect to your activities?

Answer: Well I would say it's a lack of a proper way to get notified of new events and courses that are happening at my health club as well as in the city. Apart from that my son takes up most of time and summer is coming, so a way to find and register my kids for camps and other kids events would be great.

2. Do you have any daily goals that have to be achieved?

Answer: Well daily I may not have too much time, but I do always run a few kilometers or swim a few laps every day.

3. Do you need keep track of yours or your children's activities in the health club?

Answer: Yeah it would surely help to see the stuff my family is involved in and a schedule to keep track of everything. Also a way to rent or buy equipment online for my son would be great, that way he doesn't have to carry too much money.

Motivations

1. What motivates you into achieving your day to day goals? (Incentive, fear, achievement)?

Answer: Well I want my children to be active and healthy and I do want to set a good example for them. And I am not getting any younger and it's up to us to keep healthy

Devices Owned & Technology

3. What are the smart devices you own?

Answer: I have a laptop from work and a simple smart phone. As I'm not too tech savvy I generally rely on my husband or by sub ordinates for cyber related stuff.

4. Would you like to have notifications and reminders for activities and events?

Answer: I wouldn't like to be bombarded with unnecessary notifications, so a simple way to check what's happening and maybe an email with a list of events would be good for me.

5. How much do you spend browsing in a day?

Answer: I would say around an hour or 2 on blogs or news and videos, but I am on my laptop my whole time at work or browsing at home.

6. If there was a good web application linked to your health club, would you use it? And what would you expect from it?

Answer: Yeah I would, especially to register for events and courses for myself and my son. I would also use it see my activities

7. Do you feel that shifting from the Facebook group to the website for discussion and updates would be helpful?

Answer: Yeah probably, as I didn't even know about the Facebook group, I am not very active on Social Media. But a common place that doesn't rely on users posting events for information would be good.

8. Would it help if the application could help you find people with similar interests who you could partner with?

Answer: Yeah that would help, I think it's a great Idea.

This concludes the user interview. Thank you so much for making yourself available for this interview. We hope that with your inputs and feedback, we can develop an application that would truly helps you

Justification for User Interview Questions

The interview questions were formed to figure out the challenges the user faces and thereby come up with ideas to solve those issues with the help of an application. Based on user inputs we can also arrive at a specific conclusion that a user would be more comfortable using the application in a specific platform such as mobile application, desktop application & web application.

Background

- 1. Could you please tell us about yourself?**
- 2. Could you please tell us briefly what you do in your free time? What are your hobbies?**
- 3. Tell us a little bit about your professional life? What kind of work do you do? How active are you?**
- 4. What made you take interest in your hobby or activity?**

Justification: The background of a potential user is important as it gives us an abroad picture of the user and allow us to arrive at a reasonable assumption that the application is basically useful.

Challenges and Goals

- 1. What do you think is the biggest challenge you face in your day to day life with regard to your activities?**
- 2. Do you have any day to day goals that need to be achieved?**
- 3. Are you currently facing any problems in achieving these goals?**

4. What motivates you into achieving your day to day goals? (incentive, fear, achievement)

Justification: These challenges that the user faces can be used to design application features that could potentially help the user. The motivation gives us an idea of how often the user might rely on the application

Technology

1. How many smart devices do you own?

Justification: Gives us an idea of the different platforms we need to develop for.

2. How often do you use your mobile or laptop?

Justification: Gives an idea on the time spent using their devices. This tells us if the users are comfortable with usage of devices and applications.

For example: If a user spends most of his time on a mobile device then to design a mobile application would be sensible.

3. On an average, how much time do you spend surfing the internet?

Justification: Gives us an idea if the web application should include features to store data on the users computer.

4. Do you think a website is more convenient than downloading mobile apps?

Justification: To further come to a decision whether to use a website now and develop an application later.

5. If there was a good web application linked to your health club, would you use it? And what would you expect from it?

Justification: To learn the expectation of a particular user, translating in to further features.

6. Would it make your life easier to share your information live with a trainer or nutritionist?

Justification: This tells us if the user is willing to share information to make his life easier and to get an idea of how many users want their trainers, if they have them, linked to their account at a health club.

7. Do you feel that shifting from the Facebook group to the website for discussion and updates would be helpful?

Justification: will help us to decide whether the application should be information centric or feature centric. And also if the user is happy with the current means of notifications and interaction with the website

8. If the app could connect you with other enthusiasts and let you find partners to play sports or take courses with, would that be something you would like?

Justification: Will help us to decide whether to include basic social media aspects in the application, like find a friend or a buddy.

9. What do you think would help you better?

An application that educates you on your activities and schedule and lets you use it interactively to make bookings? OR Would you like that it simply collects and displays data, such as schedules, list of events, courses? OR a combination of both?

Justification: Will help us to decide whether the application should be data centric or feature centric.

10. What medium would you prefer to have the data presented to you? Would you prefer a mobile application or a web service?

Justification: This helps us decide if we should focus on mobile application or a web site.

11. Do you like to have statistical data like your past 3 months progress in the form of a graph on the application?

Justification: This helps us to decide whether the app should have a feature to show statistical data

We also interviewed experts on this particular medical field to corroborate our justification and also to gain a perspective from a medical expert's point of view.

EXPERT INTERVIEW TRANSCRIPT 1

1. Could you please state the record of your name, profession and experience in your field?

Answer: My name is Francis Gri and I am a Clerk and Fitness Coach and Teacher and Technical Supervisor. My experience is around 11 years in SRH CampusSports, but in SRH Holding since 1996

2. Could you please tell us a little bit about yourself, how and why you come to do what you are doing today?

Answer: I was always interested and a sportsman, I also like teaching and helping people

3. How often is the current website updated?

Answer: Well, we have a real updated when we change the schedule, which is every 3 months. But if there are small changes such as, a change in facilities, this is updated constantly. This is done via newsletters. I alone handle all of this.

4. Do you use your computer for work? Do you prefer mobile/tablet or a computer for work?

Answer: Of course I do. I only use a Computer, no tablet or mobile.

5. Is there any existing platform for the students to register online?

Answer: No there is no platform, as of now the students need to come here to register. It would be quite helpful and possible to do this, maybe the photo and details can be synchronized with their details at the university.

6. Would you like the student data to reach you through computer to provide consultation? Would it save your time?

Answer: It would not save me much time, as it is easier to speak personally. But it would help customers that live faraway, but there is always a problem of misunderstandings.

7. Do you think if the socializing activities would help the people to get motivation to go to the gym?

Answer: Not really as it has to do with the personality of somebody, i.e if somebody likes to do something for himself, then it has nothing to do with social media, maybe a way to find partners would help. But nothing could not be done by a simple Phone call.

8. Do you feel that shifting from the Facebook group to the website for discussion and updates would be helpful?

Answer: People I have experienced don't really like discussions and Facebook does this, it takes so much time. So if that is done then should be done by a single person to work on Facebook or here. But we only have 8 people working here. So maybe this would help.

9. Do you feel if it would be better for the user to track his course information and upcoming courses?

Answer: This would be an interesting application, there has been some requests for this, but we are not working like this right now. We are just old-school now concerning that now.

10. Do you need a mobile application would ease the whole process?

Answer: I don't think so.

11. How many people join the gym on a monthly basis?

Answer: In the beginning of the year about a 100 new people, and in April about 250 to 300 new students would register every year. I would say the average is around 50 people a month

12. How many existing members in the gym?

Answer: At the moment we have 2915.

This concludes the expert interview with *Mr. Francis Gri*. Thank you so much for giving us your time.

EXPERT INTERVIEW TRANSCRIPT 2

1. Could you please state the record of your name, profession and experience in your field?

Answer: My name is Donald Sinns, I work as a Fitness Coach and Technical Lead at a Health Club in Mannheim. My experience is around 8 years as a Fitness coach and about 2 year on the technical end.

2. Could you please tell us a little bit about yourself, how and why you come to do what you are doing today?

Answer: From childhood I was a sportsperson and as I also like interacting and meeting new people. I also used to work as a IT professional at a company in Mannheim, I then quit and started full time here.

3. How often is the current website / application updated?

Answer: We do an update almost every week or 5 days as events and course timing have to be constantly updated, also new users are constantly coming in so data about facilities have to be always up to date for them. Nothing is done via newsletters, except invitations for large group events like a marathon.

4. Do you use your computer for work? Do you prefer mobile/tablet or a computer for work?

Answer: I use a computer at office. At home I use my laptop for work.

5. Is there any existing platform for the students to register online?

Answer: For students or anyone to register there is a platform but it is not fully functional, it is simply for starting the process and they have to come here to pay and register fully.

6. Would you like the student data to reach you through computer to provide consultation? Would it save your time?

Answer: Well as of now it does and it is quite convenient since we made a part of the booking and registration process online.

7. Do you think if the socializing activities would help the people to get motivation to go to the gym?

Answer: Not particularly as I don't think anyone would care about socializing here. But a way to find people with similar interests would be helpful for the users.

8. Do you feel that shifting from the Facebook group to the website for discussion and updates would be helpful?

Answer: We currently have many Facebook groups and all of them are managed by individual users. So a consolidated place to find all of this information and updates would be helpful

9. Do you feel if it would be better for the user to track his course information and upcoming courses?

Answer: Yes I think this would be helpful to the users. But expensive to implement on a large scale as we need to integrate with their smartphones. Currently we have a system that tells the user what he or she is registered for and their schedule, this is used a lot.

10. Do you need a mobile application would ease the whole process?

Answer: Yeah I think an app would help a lot.

11. How many people join the gym on a monthly basis?

Answer: On a monthly basis around 200 join on trial and we get about 60 users that become full members.

12. How many existing members in the gym?

Answer: Currently we have about 3800 members here.

This concludes the expert interview with Ms. Donald Sinns. Thank you so much for giving us your time.

EXPERT INTERVIEW TRANSCRIPT 3

- 1. Could you please state the record of your name, profession and experience in your field?**

Answer: My name is Elsa Jean, I am student and an assistant Thaibo coach in a Health Club in Mannheim. My experience is around 2 years as an assistant coach.

- 2. Could you please tell us a little bit about yourself, how and why you come to do what you are doing today?**

Answer: I study management in university of Mannheim. Since childhood I was into sports. I run in a marathon in Mannheim every year and I want to train myself for the iron man contest.

- 3. How often is the current website / application updated?**

Answer: We have a monthly schedule but we also update every week as events and course timing have to be constantly updated. We also have new users who are constantly coming in, so the data about facilities always have be updated for them. For new events, there is very little done via website, we give brochures to our users and also invitations for large group events like a marathon.

- 4. Do you use your computer for work? Do you prefer mobile/tablet or a computer for work?**

Answer: I use a computer at work. But I am not sure about the use of mobile/tablet for work.

- 5. Is there any existing platform for the students to register online?**

Answer: For students or anyone to register there are instructions. First of all they have to book an appointment with us. Then, they have to come here, pay and register fully.

- 6. Would you like the student data to reach you through computer to provide consultation? Would it save your time?**

Answer: We don't have anything like this at the moment. I personally think that I would help and save a lot of time.

- 7. Do you think if the socializing activities would help the people to get motivation to go to the gym?**

Answer: Yes! I personally think that having a partner for working out is always a good idea. We actually organize events so that all our users can come, participate and socialize with other people.

8. Do you feel that shifting from the Facebook group to the website for discussion and updates would be helpful?

Answer: We currently have many Facebook groups and all of them are managed by individual users. So a single platform to find all of this information and updates would be very helpful.

9. Do you feel if it would be better for the user to track his course information and upcoming courses?

Answer: Yes I think this would be helpful to the users. We have a system that sends an sms to the users about the course they registered for and also we give them a printed handout for their plan for the month.

10. Do you need a mobile application would ease the whole process?

Answer: I never gave it a thought but yeah I think an app would help a lot.

11. How many people join the gym on a monthly basis?

Answer: On a monthly basis around 80 join on trial and we get about 30 users that become full members.

12. How many existing members in the gym?

Answer: Currently we have about 900 members here.

This concludes the expert interview with *Ms. Elsa Jean*. Thank you so much for giving us your time.

STAGE 4- USER STORIES

OUR USER STORIES

Our User Stories is spanned on four elaborations that highlights our application features. Our features include – range of facilities, costs of membership, renting equipment, booking a court and finding a sports partner. Each user story is broken down into sections that lead to an ultimate goal of helping users to overcome the challenges they face. The challenges being the following mentioned below.

- User wishes to check out the range of facilities available for swimming & sauna as well as the costs of membership.
- User wants to join a course in the health club and needs to check out some summer camp events for his son.
- User wants to rent badminton equipment and book a court for practice.
- User wants to find a squash partner to play with and check on his account information in the health club.

The below user Stories will give a detailed view on our approach to the application functionalities.

USER STORY 1

“User wishes to check out the range of facilities available for swimming & sauna as well as the costs of membership.”

User story decomposition 1

Swimming the best workout for the human body and sauna makes the immune system stronger. The main issue is to find what kind of courses for swimming are available, availability of sauna and how much does the membership costs.

Functionality

The website will provide the information for facilities available for swimming, sauna and other kinds of aerobic sports in the simplest possible way. The users can navigate to their desired sport activities with just a few clicks. In addition to that, the users can also see the sports event happening in the fitness studio and at other sports facilities. In the membership button, users can see the offers, services provided and information about the contact person.

Story Elaboration 1

Users want to have an idea about the facilities available for the aerobic sports like swimming & sauna as well as how much does it cost to become a member of the club.

Start situation – User needs information

Action – User checks for available facilities.

Outcome – User is able to decide which kind of membership he/she wants as he/she has seen the available facilities.

Ultimate goal – Keeps the decision making easy for the user by providing him the correct information.

USER STORY 2

“The user wants to join a course in the health club and needs to check out some summer camp events for his son.”

User Story decomposition 2

Staying healthy is an essential part of life. The user wants to join a course in the health club and also wants his son to get involved in the health activities. Therefore, he wishes check out some summer camp events for his son.

Functionality

The website will provide a wide range courses available in the health club for the user to choose. Also, it will provide health related activities for children. User can also look for courses like summer camp for his son.

Story Elaboration 2

Start Situation – User wants to join a course in the health club as well as a summer camp event for his son.

Action – User checks for available courses for himself and his son.

Outcome – User is able to join a course and also he is able to look a summer camp activity for his son.

Ultimate Goal – Provides the user with ease and freedom to chose for a course for himself and his son.

USER STORY 3

“The user want to book a badminton court and rent equipment”

User Story Decomposition 3

Badminton is one of the best indoor racquet sports. The requirement here is to provide the user with the badminton court and equipment.

Functionality

The website provides an interactive platform to book a court for badminton. It shows the availability of the court with the duration of time that a single user can book court for. It also provides a platform to book equipment for the sports.

User Story Elaboration 3

Start Situation – User wants to book badminton court and rent equipment.

Action – User check for the availability and books the court and equipment.

Outcome – Gives the user a simple to use court booking system and renting equipment.

Ultimate Goal – With this particular feature user has now more freedom to choose a day and time for booking court as he has weekly/monthly view of the booking chart.

USER STORY 4

“The user wants a partner for squash to play against who has a similar level of expertise as himself, in the health club.”

User Story decomposition 4

The user simply wants a partner for squash who has a good amount of experience. This can be done by our filters available in our find a partner option.

Functionality

The website provides a platform for users to find other users to play, compete and train with each other. This works via the “Find a Buddy” functionality where the user can use various filters to find a suitable partner, contact and chat with them. Potential Partners are added into this list by ‘Placing an add’.

Story Elaboration 4

Every user has a profile in the health club and knows to a reasonable extent their own level of expertise. A user, when in need of a partner can either look for a partner on our database or can place an add, allowing himself to be a potential partner. In this way users with similar profiles get to meet each to train or practice.

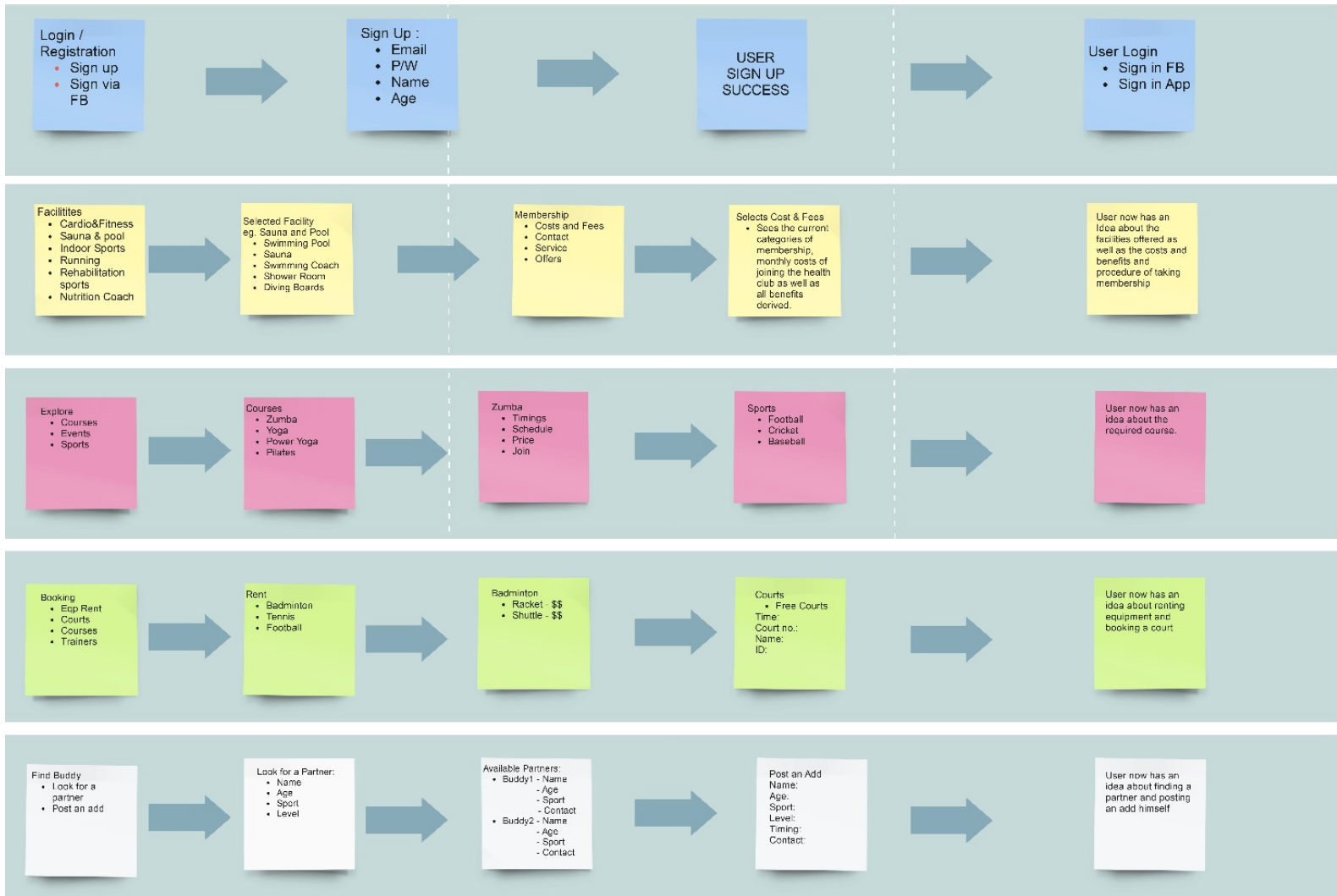
Start Situation - User looks for a partner to play squash with.

Action - User looks for experience level of his partner and sets this in Find a Buddy

Outcome - User is able to choose his partner for squash according his experience level.

Ultimate Goal – With this feature, user has the opportunity to play against any other user. Also, he gets to see an overview of the profile of his partner and has an idea about what is the level of the other user in this particular sport.

STAGE 5 – STORY MAPPING



Story Mapping gives an overview on how a user navigate through the application. We have described five characters going about the application features and the possible scenarios they face.

LOGIN: - The user chooses to login (if he is already a registered user) or register. He can register via email or via Facebook.

FACILITIES: - There are many indoor and outdoor facilities available. The user can chose from the available facilities e.g. Cardio fitness, Sauna and Pool etc.

EXPLORE: - The user can explore different courses e.g. Zumba, Pilates, Thaibo, Spinning and yoga. Also, he can view the schedule and price of the course.


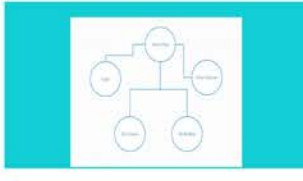

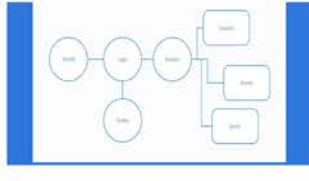
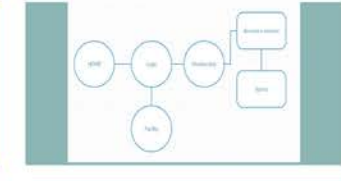
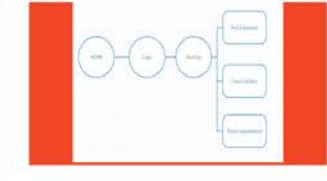
BOOKING: - The user can book for one or more courses. If there is a time clash between courses, the user will be informed. Also, the user can rent sports equipment and book courts.

FIND BUDDY: - The user can look for a sports buddy by entering the gender, age, type of sport and experience level. Then he will be given a list of available buddies to choose from. If he can't find a buddy, his query will be saved and he will be informed as soon as the system finds a suitable match for him.

MEMBERSHIP: - The user can browse the available memberships. He can look for the price and benefits offered by the memberships and buy the membership according to membership plans available.

STAGE 6 – EXPERIENCE MAPPING

Journey map is a path where a user navigates through the entire application. It traverses from how the user would find our application and its journey while going through our app features. The users thinking and feeling while using a feature is also taken into consideration. Above it the developers thoughts as we go through iterations are also recorded.

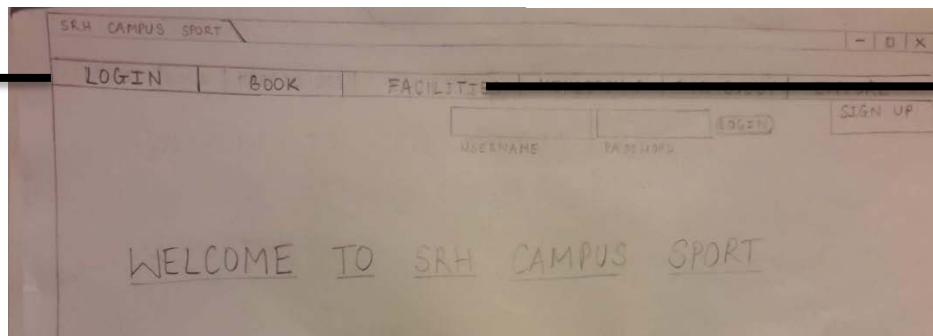
	User Login	User Information	Find Buddy	Explore	Membership	Booking
WORKFLOW/NAVIGATION	 <p>1. Easy Login process Authentication (db connected) Result display (pass/fail)</p>					
THOUGHT PROCESS	<p>1. No much thought about it (version 1 (journal login)) 2. authentication by RFID was existing (iteration 2) 3. Sign up - required? conclusion: 1. will prevent; 2. not possible; 3. yes</p>	<p>1. import his data from facebook / gmail; 2. clear out info about only what he needs 3. is user info page required? Conclusions: 1. doubtful; 2. yes, agreed; 3. absolutely required/necessary</p>	<p>1. must needed feature 2. Are we capable? 3. chat option?</p>	<p>1. explored existing system; no much thought-iteration 1 2. Re-arranged data in existing system-iteration 2 3. added events/live updates)-iteration 2</p>	<p>1. Existing system does not have online membership(iteration 1) 2. payment option missing(iteration 2) 3. provide discounts in membership navigation bar.</p>	<p>1. no booking option in existing system(iteration 1) 2. facilities like renting, booking court & trainer to be added</p>
EXPERIENCE	<p>1. should be in first page(index/default) 2. sign up to be given right next to login 3. single step authentication system for better performance 4. includes forgot password, email confirmation to be sent to user.</p>	<p>1. Had a look at social websites for ideas 2. kept mannheim university sports webpage as reference 3. all the features should be clear icon 4. updated design strategy for user comfort.</p>	<p>1. can be implemented, but much work needed 2. no chat option because no user will be online always 3. can send a friend request & call buddies to sport center by automatic message system 4. logical iteration for find buddy should not hamper performance of the system.</p>	<p>1. existing system navigation tough to get things 2. after re arrangement, aim to provide easy navigation</p>	<p>1. payment to EC is difficult to implement as gateway comes into account 2. payment option from paypal possible</p>	<p>payment details are as same as that of experience in membership</p>
IMPROVEMENTS	<p>1. include multi step authentication system, automatic code to be sent to registered cell phone. 2. Authentication via QR scanner.</p>	<p>1. Better placement of icons required(iteration 1) 2. need more work on design(iteration 2 & 3)</p>	<p>1. import auto buddies from FB 2. auto registration system to be provided for login users. 3. good queries algorithm in buddies layer/DB</p>	<p>adding search bar to search for events(provide category for search</p>	<p>payment from gym is possible by providing QR code. using this code payment is made easy [reduces confusions]</p>	<p>improvements for booking are same as that of implements in membership.</p>
USER THINKING	<p>1. Is it possible for me to register with this app? 2. will it let me see my activities & schedule in my profile 3. is this for me?</p>	<p>1. why is it asking for so much info? 2. will it be safe? 3. can i see my membership details</p>	<p>1. will this help me find a partner? 2. what is buddy? 3. Can i get a partner that is most suitable to me.</p>	<p>1. this place offers a lot of stuff to do. 2. this is quiet easy to navigate 3. i hope i can book directly & there is a place for me.</p>	<p>1. i wonder if i can some offers as i am student. 2. if i need support, will they provide?</p>	<p>1. can i book multiple events & courts? 2. can i rent equipment for my friends? 3. can i get personal trainer?</p>
USER FEELING	<p>1. this looks like a good service 2. i hope it protects my privacy 3. i hope it let me schedule my work out</p>	<p>1. this is concise way of seeing my profile 2. i hope my privacy is protected 3. i hope this lets me manage profile</p>	<p>1. i hope i can find somebody i like 2. i hope he is at similar expertise level 3. i hope he/she does not mind me contacting him</p>	<p>1. i hope i can find what i like. 2. i hope i dont get false information</p>	<p>1. i hope my payment goes thro'. 2. i hope it is worth it 3. i can cancel my membership online</p>	<p>1. this is easy to use 2. i hope my team is good 3. i hope my trainer is good</p>
USER DOING	<p>The user wants to save his profile & personal info altering him as login & access his details. with this he/she can keep track on their memberships</p>	<p>1. here user sees his own profile, the activities he is involved, his memberships details, fees to be paid & his personal info</p>	<p>The user here can find a friend / sports partner that fits my criteria like my age, sport & expertise level. the user can also post an ad with his details allowing himself to be found</p>	<p>here the user can explore/find all facility, events & sports that club currently offers.</p>	<p>here the user can see the fees structure & conditions for memberships. He can also see the current membership types & offers that club has.</p>	<p>here the user can book & reserve the place for himself in various events & courses. he can also book trainers & courts for games, training & matches.</p>

STAGE 7 – PAPER-PROTOYPING APPROACH

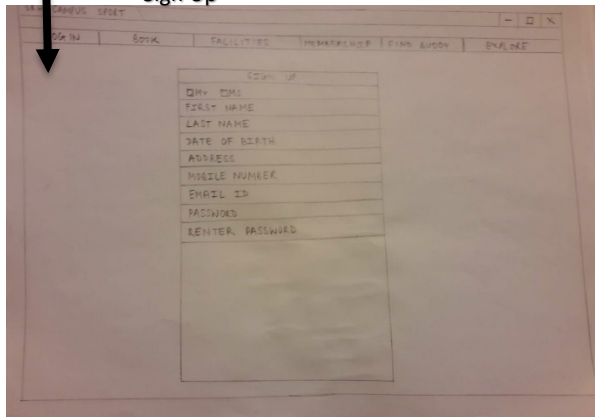
This approach was used to design the layout of the application. We used the conventional method of drawing and linked the drawings

The arrows show the flow of the application.

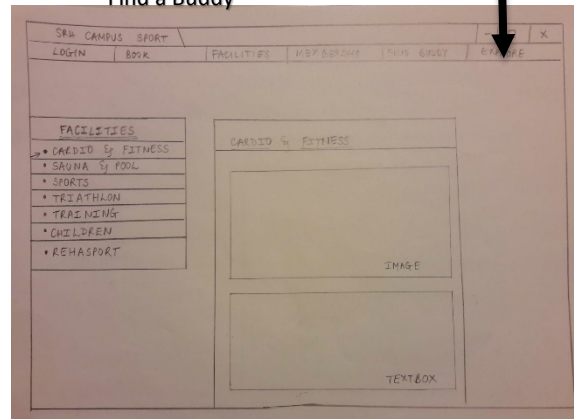
Home Page



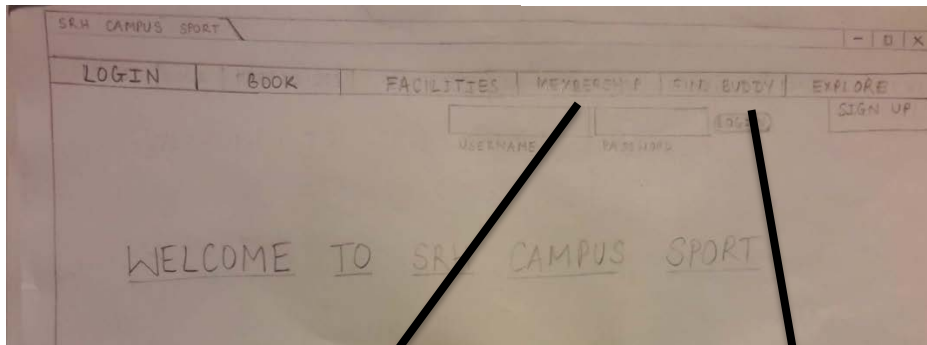
Sign Up



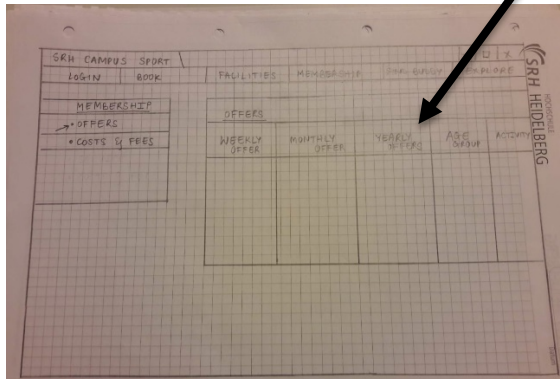
Find a Buddy



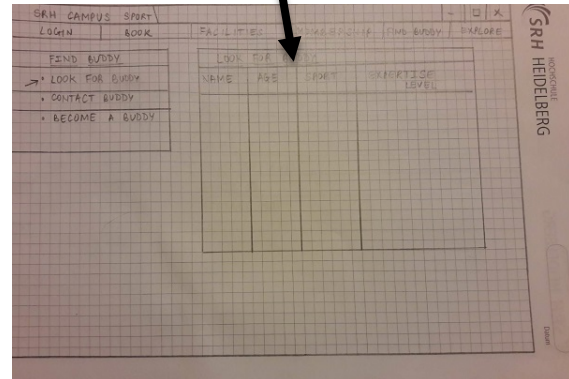
Home Page



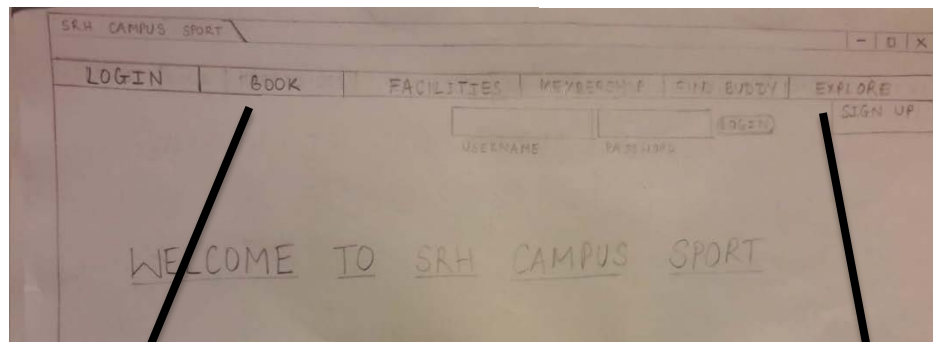
Membership-> offers



Look For a Buddy



HomePage



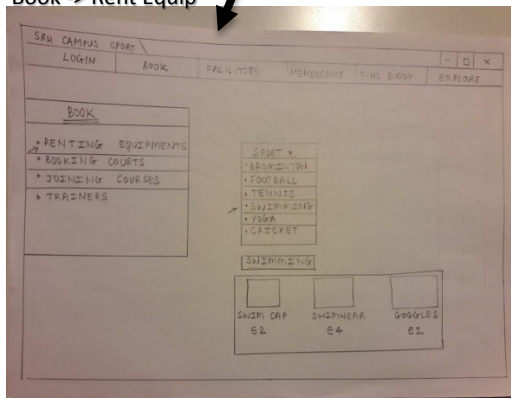
SRH CAMPUS SPORT

LOGIN BOOK FACILITIES MEMBERSHIP FIND BODY EXPLORE

USERNAME PASSWORD SIGN UP

WELCOME TO SRH CAMPUS SPORT

Book -> Rent Equip



SRH CAMPUS SPORT

LOGIN BOOK FACILITIES MEMBERSHIP FIND BODY EXPLORE

BOOK

RENTING EQUIPMENTS
BOOKING COURTS
JOURNALING COURSES
TRAINERS

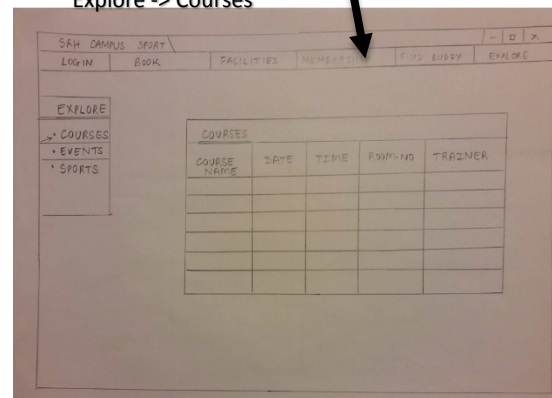
SPORTS

- BASKETBALL
- FOOTBALL
- TENNIS
- SWIMMING
- YOGA
- CRICKET

SWIMMING

SWIM CAP
SWIMWEAR
GOGGLES

Explore -> Courses



SRH CAMPUS SPORT

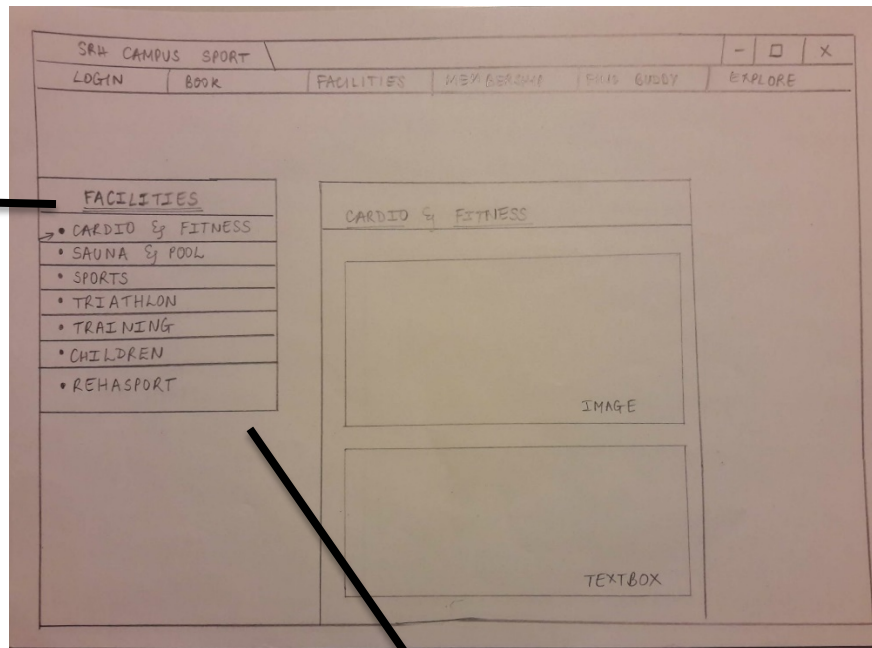
LOGIN BOOK FACILITIES MEMBERSHIP FIND BODY EXPLORE

EXPLORE

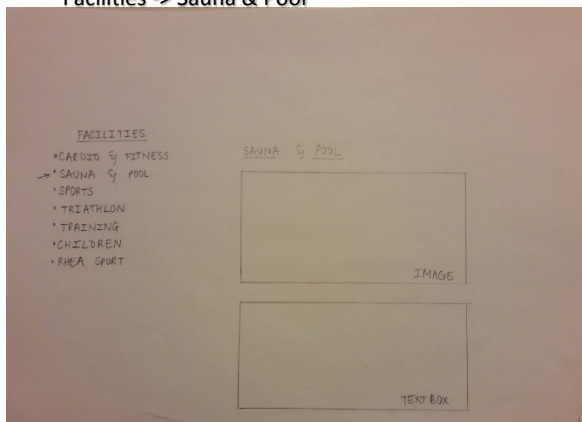
COURSES
EVENTS
SPORTS

COURSE NAME	DATE	TIME	ROOMING	TRAINER

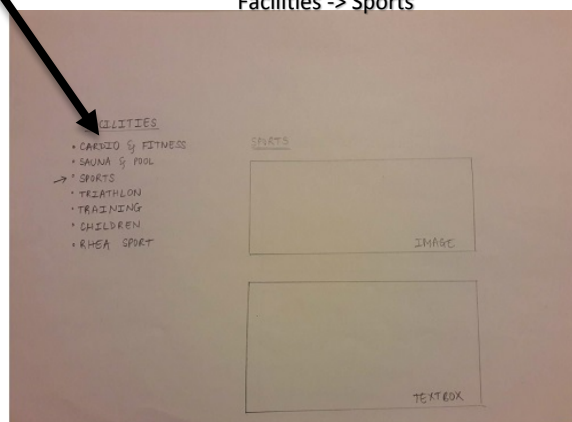
Facilities -> Cardio & Fitness



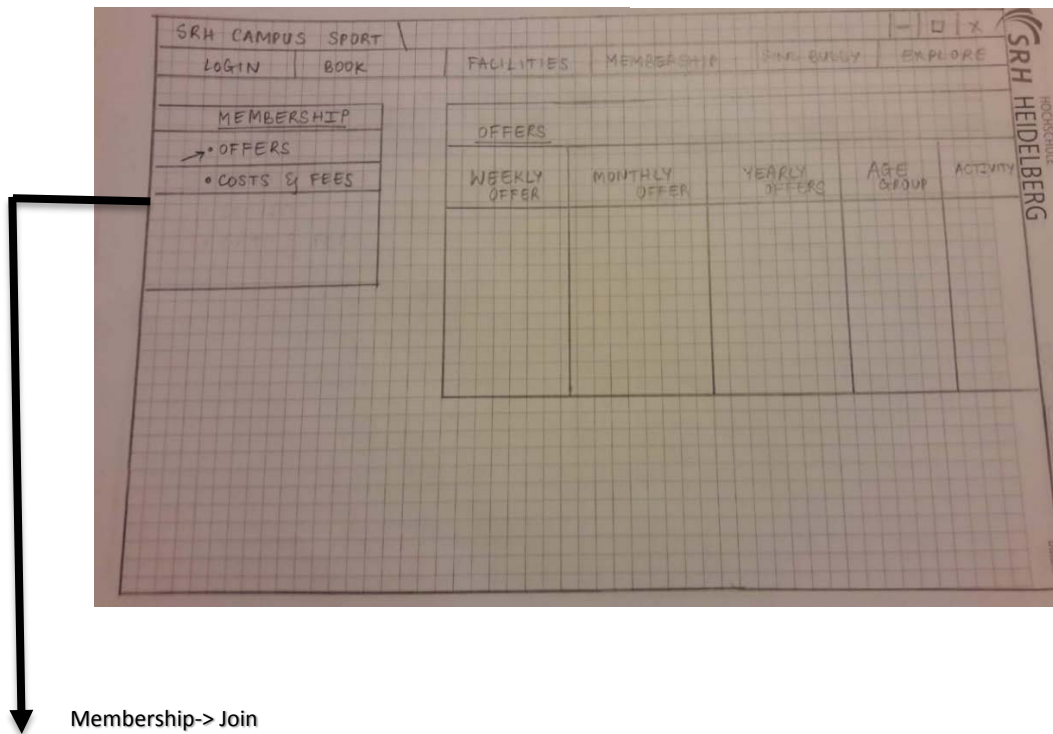
Facilities -> Sauna & Pool



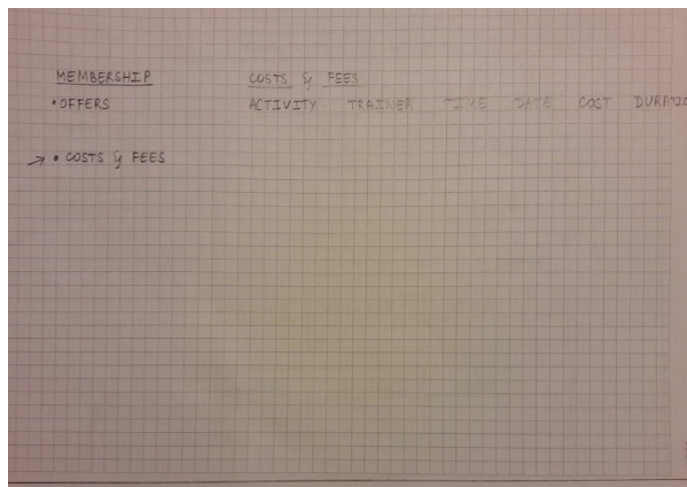
Facilities -> Sports



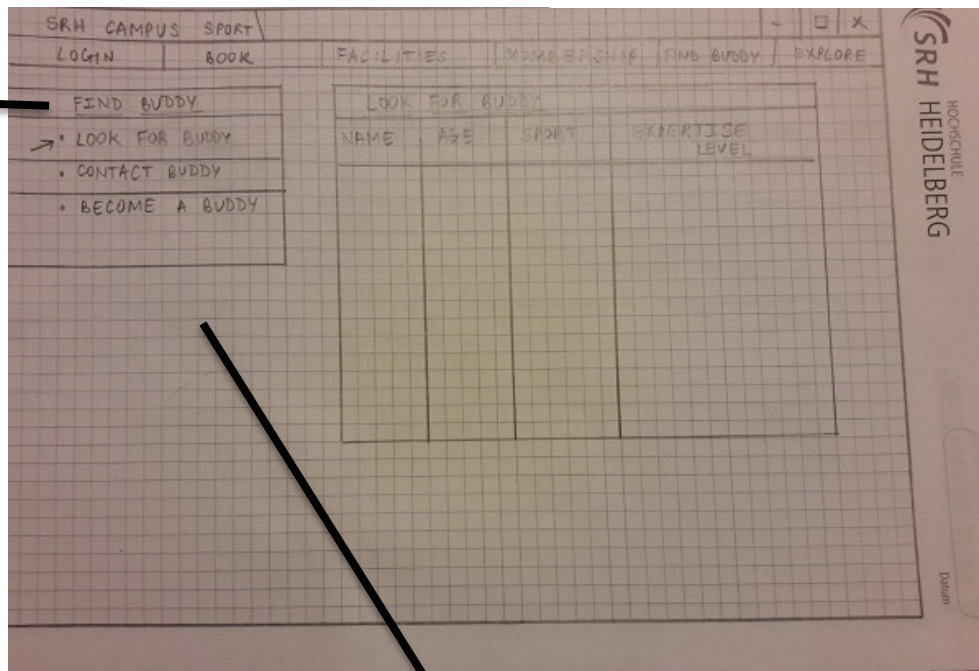
Membership-> Offers



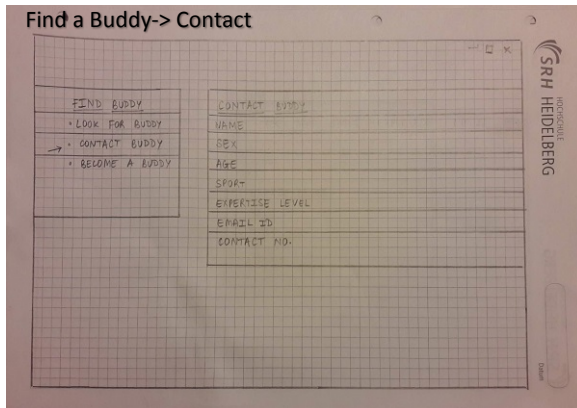
Membership-> Join



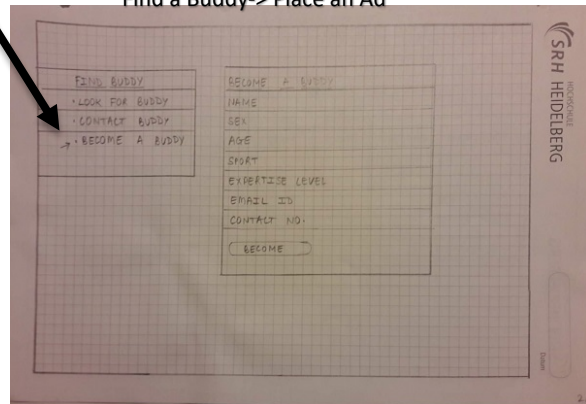
Find a Buddy



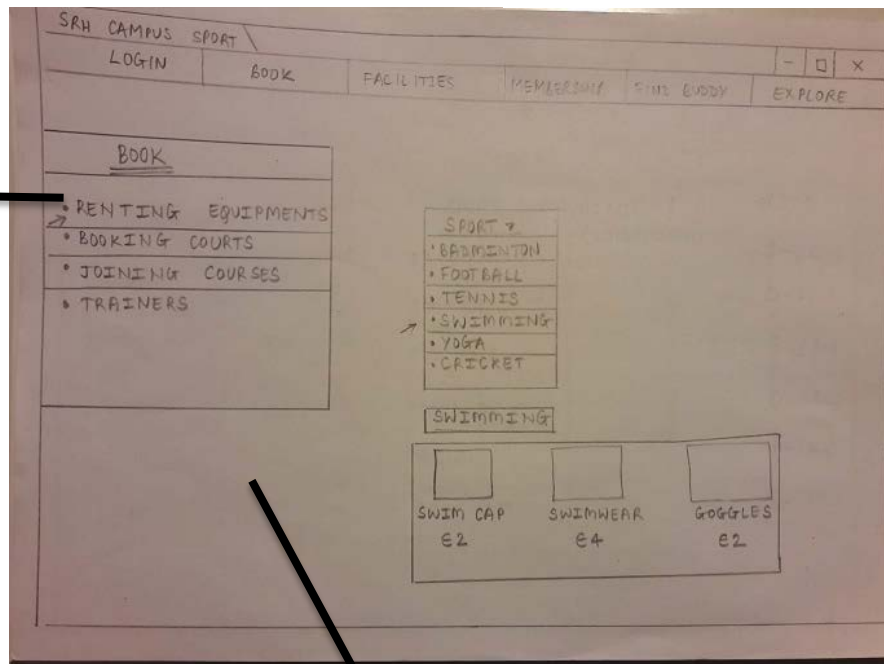
Find a Buddy-> Contact



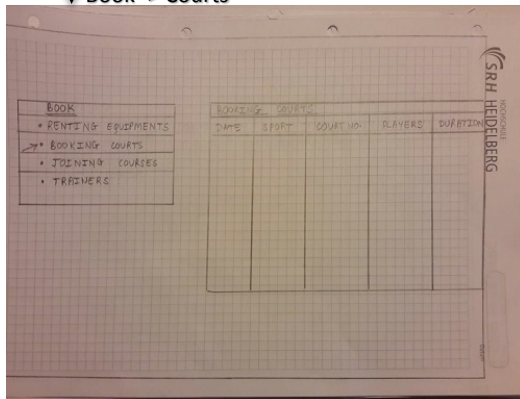
Find a Buddy-> Place an Ad



Book -> Rent Equip

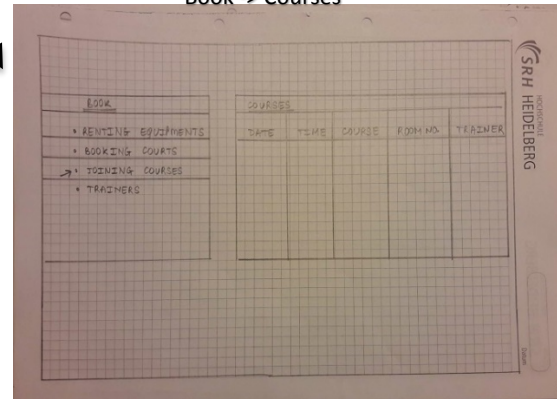


Book -> Courts



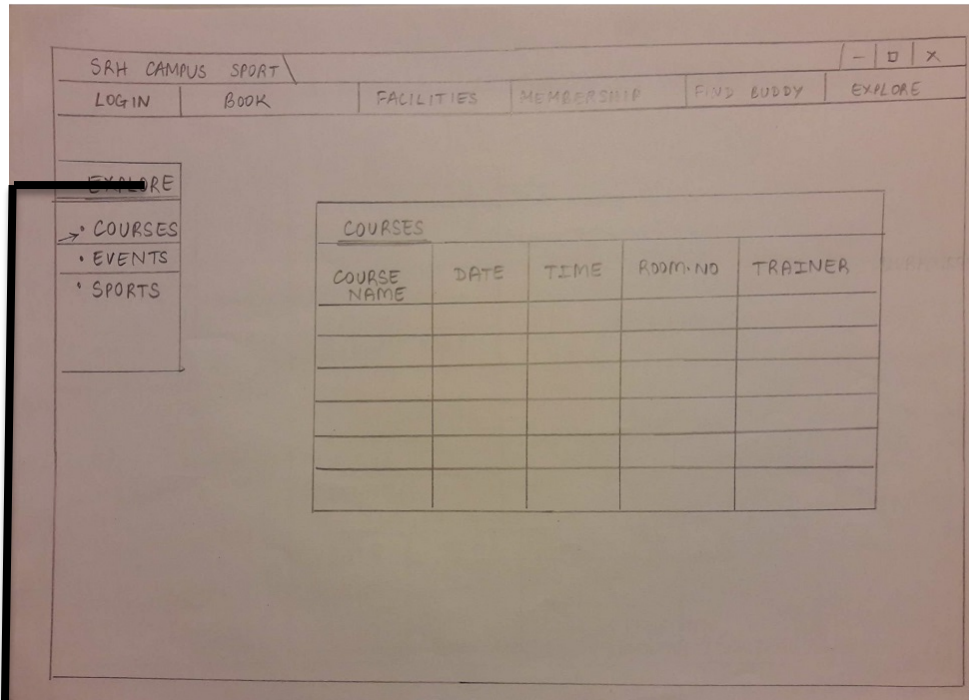
DATE	SPORT	COURT NO.	PLAYERS	DURATION

Book -> Courses

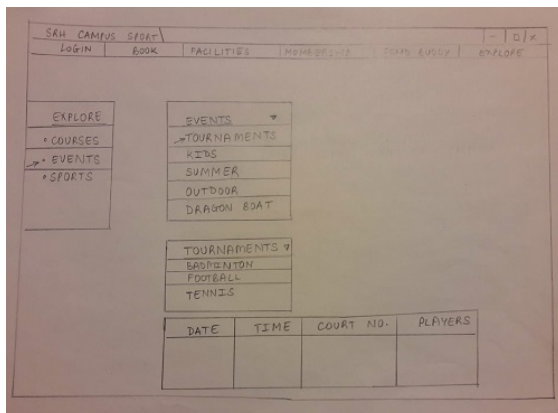


DATE	TIME	COURSE	ROOM NO.	TEACHER

Explore -> Courses



Explore -> Events



STAGE 8 – USER TESTING

Questionnaire 1

5/11/2017

Tick all the features mentioned below which looks good and does not require any change

Tick all the features mentioned below which looks good and does not require any change

1. Facilities

Check all that apply.

- ☐ Cardio & Fitness
- ☐ Sauna & Pool
- ☐ Sports
- ☐ Triathlon
- ☐ Training
- ☐ Children
- ☐ Rehasport

2. Membership

Check all that apply.

- ☐ Offers
- ☐ Cost & Fees

3. Find Buddy

Check all that apply.

- ☐ Look For Buddy
- ☐ Contact Buddy
- ☐ Become A Buddy

4. Book

Check all that apply.

- ☐ Rent Equipment
- ☐ Courts
- ☐ Courses
- ☐ Trainers

5. Events

Check all that apply.

- ☐ Tournaments
- ☐ Kids
- ☐ Summer
- ☐ Outdoor
- ☐ Dragon Boat

<https://docs.google.com/forms/d/1TysHAluOXDeHDulrMacZa5O2psL1JviaEnjAwQxgxKk/edit>

1/2

5/11/2017

Tick all the features mentioned below which looks good and does not require any change

6. Explore

Check all that apply.

☐ Courses

☐ Sports

7. About Us

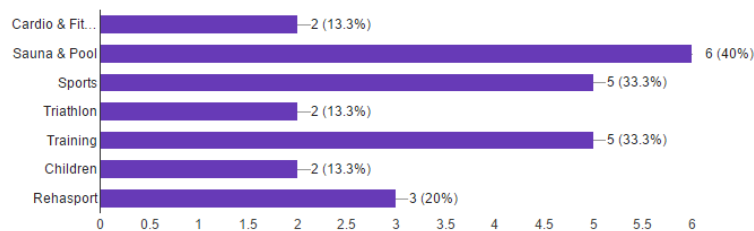
Check all that apply.

☐ Feedback

Statistics of Responses

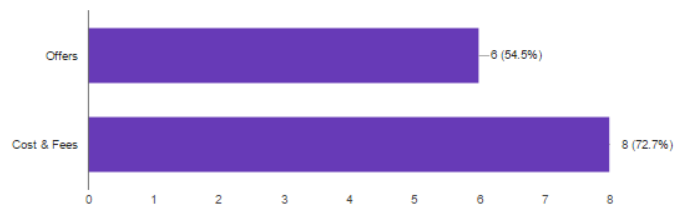
Facilities

15 responses



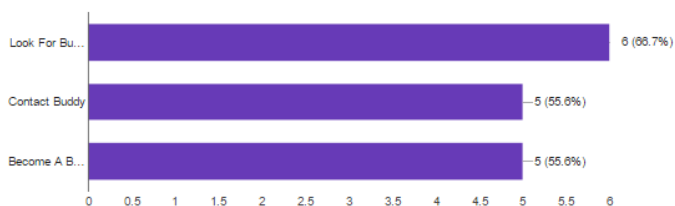
Membership

11 responses



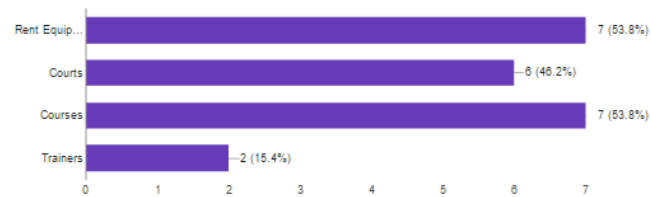
Find Buddy

9 responses



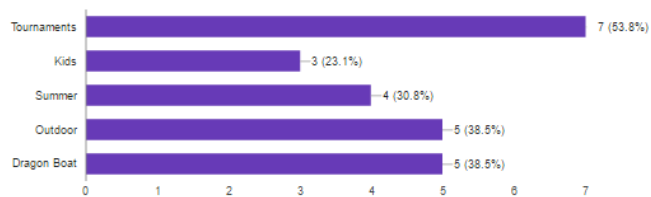
Book

13 responses



Events

13 responses



Conclusion: The Responses suggested few changes in change buddy and Sauna page. We have taken this into consideration in Iteration 2 Find buddy needs some design change which would be taken care in future module.

Questionnaire 2

5/11/2017

Tick the features which requires a change in design/navigation

Tick the features which requires a change in design/navigation

1. Facilities

Check all that apply.

- ☐ Cardio & Fitness
- ☐ Sauna & Pool
- ☐ Sports
- ☐ Triathlon
- ☐ Training
- ☐ Children
- ☐ Rehasport

2. Membership

Check all that apply.

- ☐ Offers
- ☐ Cost & Fees

3. Find Buddy

Check all that apply.

- ☐ Look For Buddy
- ☐ Contact Buddy
- ☐ Become A Buddy
- ☐ Option 4

4. Book

Check all that apply.

- ☐ Rent Equipment
- ☐ Courts
- ☐ Courses
- ☐ Trainers

5/11/2017

Tick the features which requires a change in design/navigation

5. Events

Check all that apply.

- ☐ Tournaments
- ☐ Kids
- ☐ Summer
- ☐ Outdoor
- ☐ Dragon Boat

6. Explore

Check all that apply.

- ☐ Courses
- ☐ Sports

7. About Us

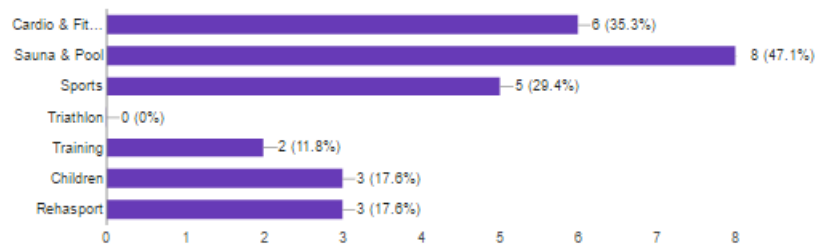
Check all that apply.

- ☐ Feedback

Statistics of Responses

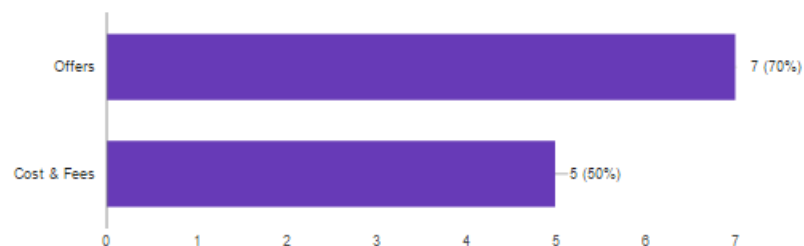
Facilities

17 responses



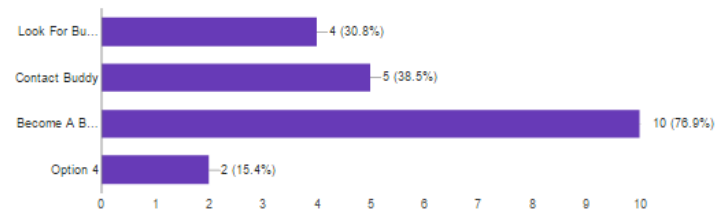
Membership

10 responses



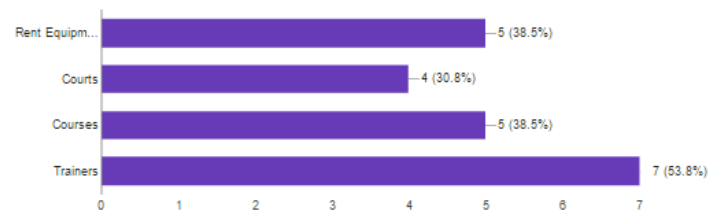
Find Buddy

13 responses



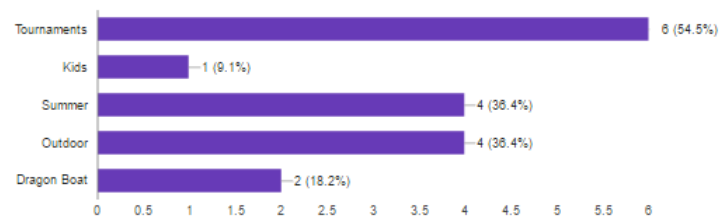
Book

13 responses



Events

11 responses



Explore

13 responses



Conclusion: The Responses we received had higher number of users having problem navigating in 1.Find a buddy 2.Events 3.Tournaments
Find buddy option is a new feature in a Campus Sport Manager, as in Iteration 2, when we made the same user to navigate, they were able to navigate without any problem. So we believe the problem can be solved over time, and it is not because of the design. Also as the response percentage is less than 20% for require a change, we have taken this slow to understand user feeling, which is more explained in experience mapping.

Questionnaire 3

5/11/2017

Tick the features you feel was not easy to use

Tick the features you feel was not easy to use

1. Facilities

Check all that apply.

- ☐ Cardio & Fitness
- ☐ Sauna & Pool
- ☐ Sports
- ☐ Triathlon
- ☐ Training
- ☐ Children
- ☐ Rehasport

2. Membership

Check all that apply.

- ☐ Offers
- ☐ Cost & Fees

3. Find Buddy

Check all that apply.

- ☐ Look For Buddy
- ☐ Contact Buddy
- ☐ Become A Buddy

4. Book

Check all that apply.

- ☐ Rent Equipment
- ☐ Courts
- ☐ Courses
- ☐ Trainers

5. Events

Check all that apply.

- ☐ Tournaments
- ☐ Kids
- ☐ Summer
- ☐ Outdoor
- ☐ Dragon Boat

5/11/2017

Tick the features you feel was not easy to use

6. Explore

Check all that apply.

- ☐ Courses
☐ Sports

7. About Us

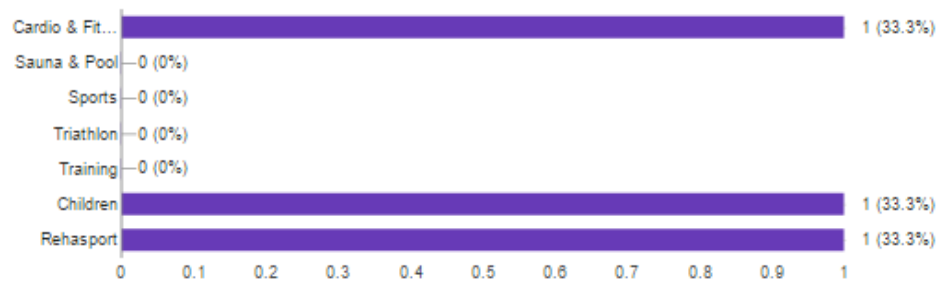
Check all that apply.

- ☐ Feedback

Statistics of Responses

Facilities

3 responses



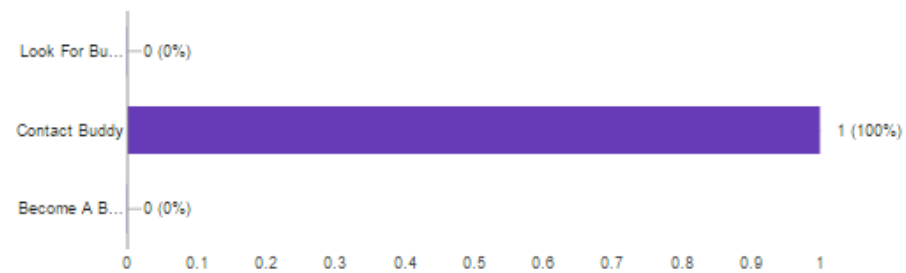
Membership

0 responses

No responses yet for this question.

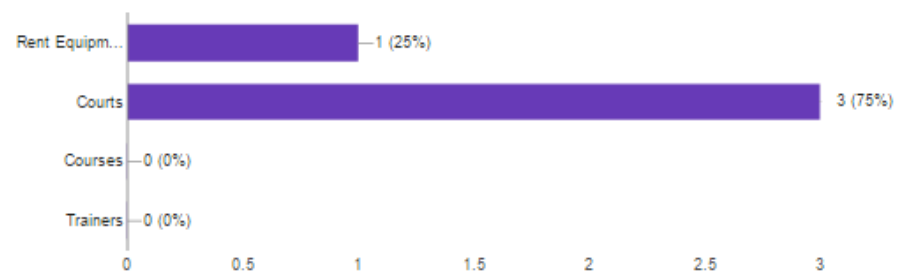
Find Buddy

1 response



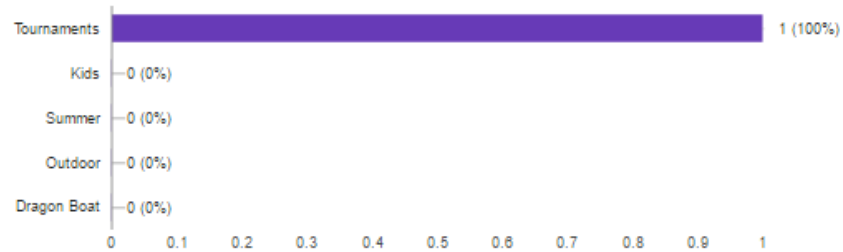
Book

4 responses



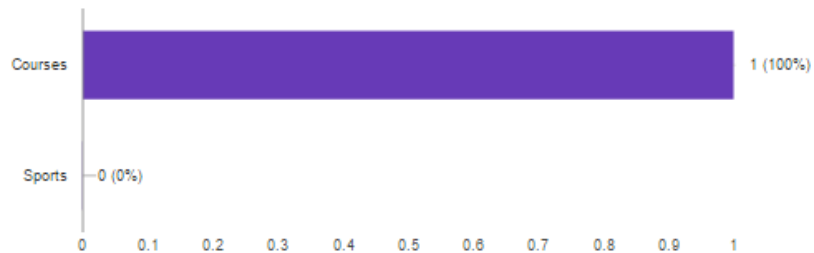
Events

1 response



Explore

1 response



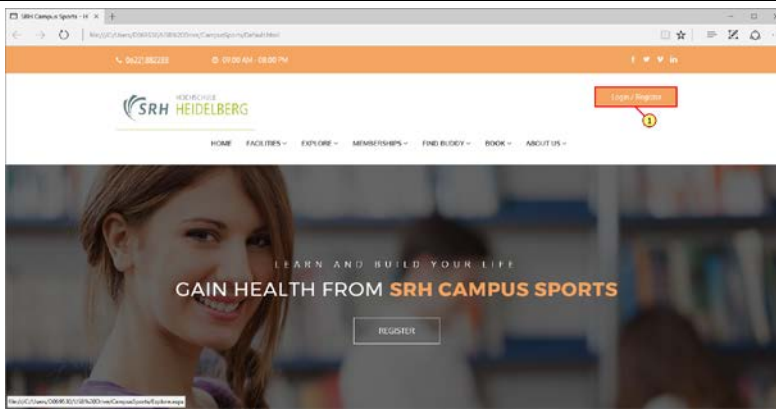
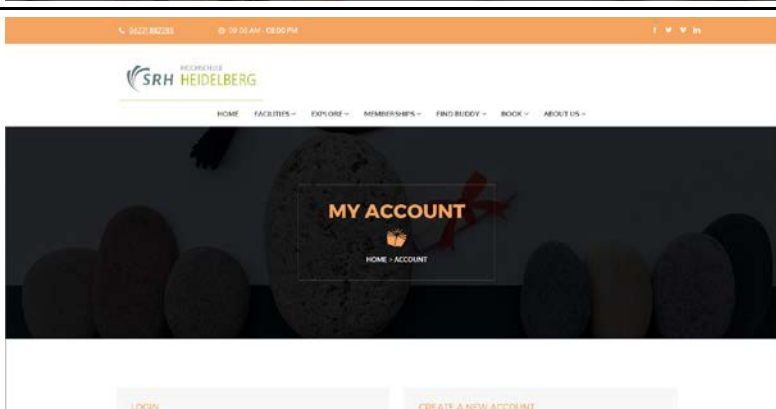
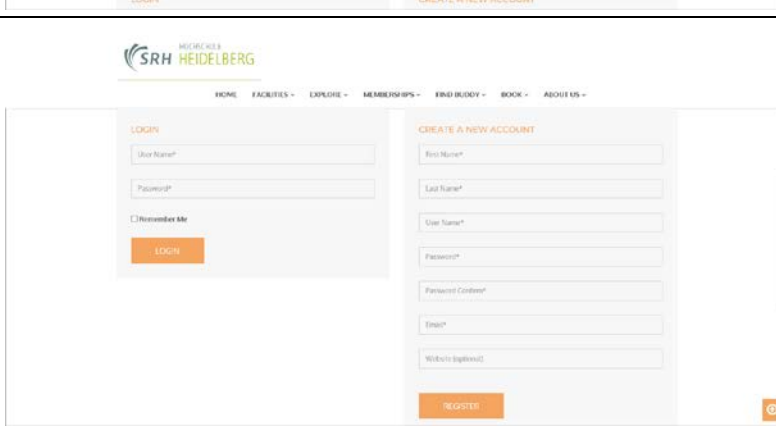
About Us

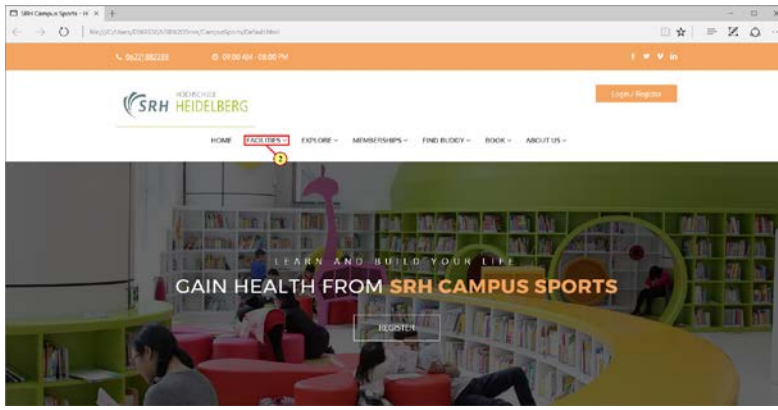
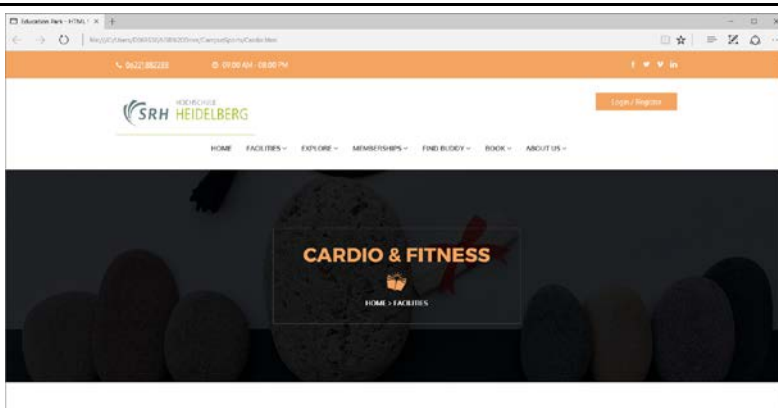
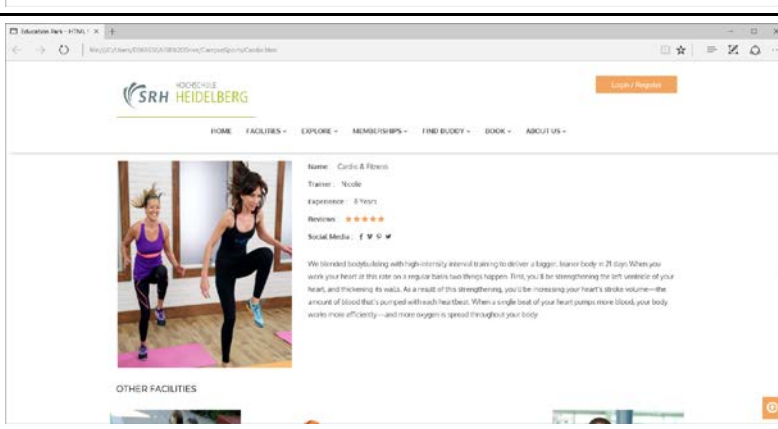
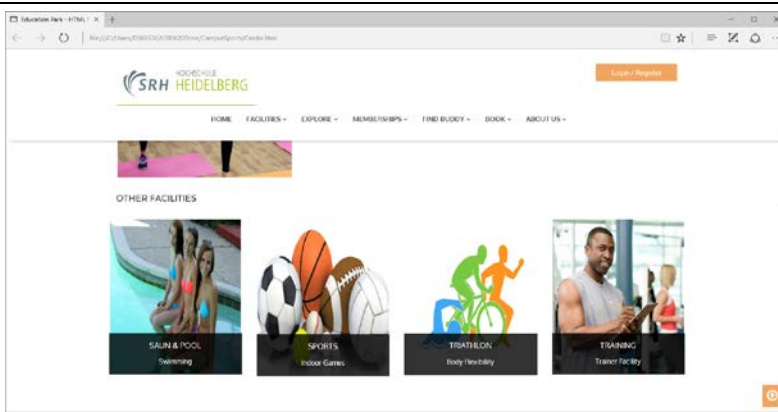
0 responses

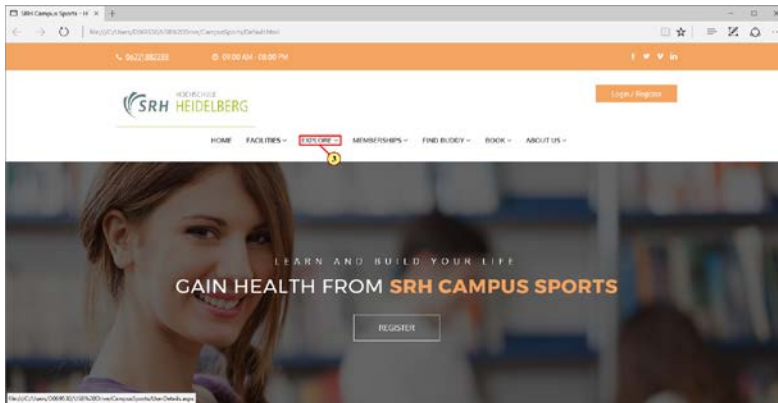
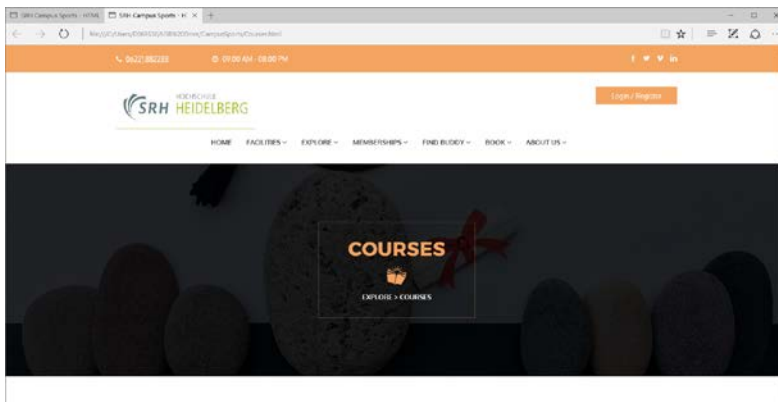
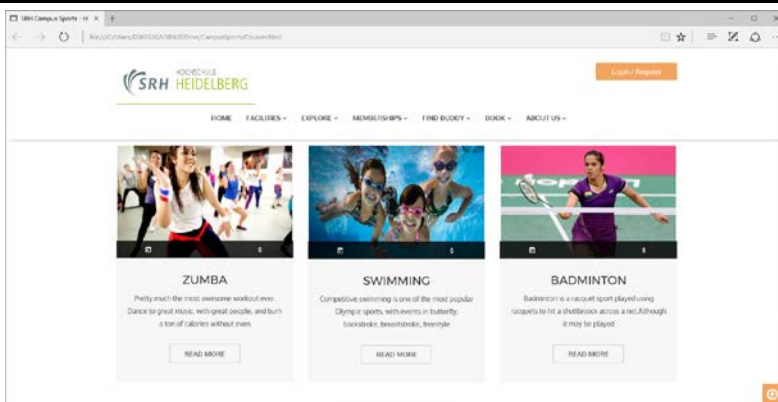
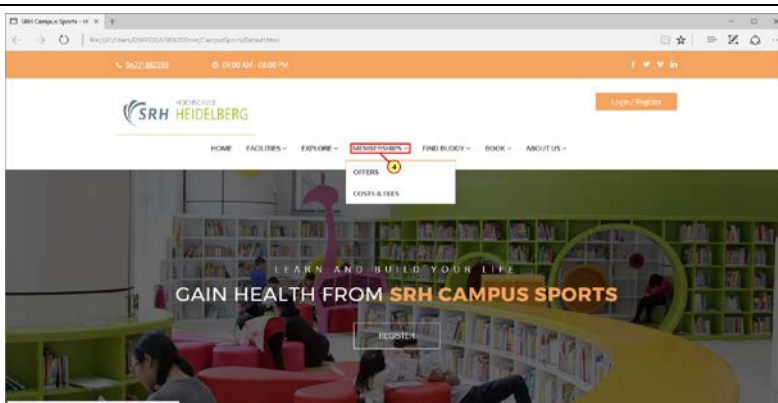
No responses yet for this question.

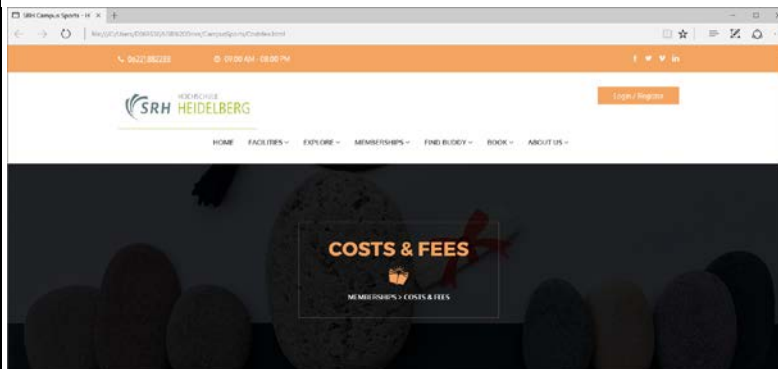
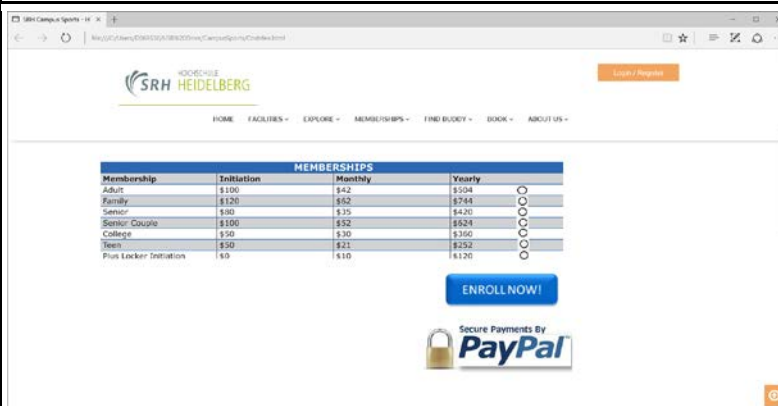


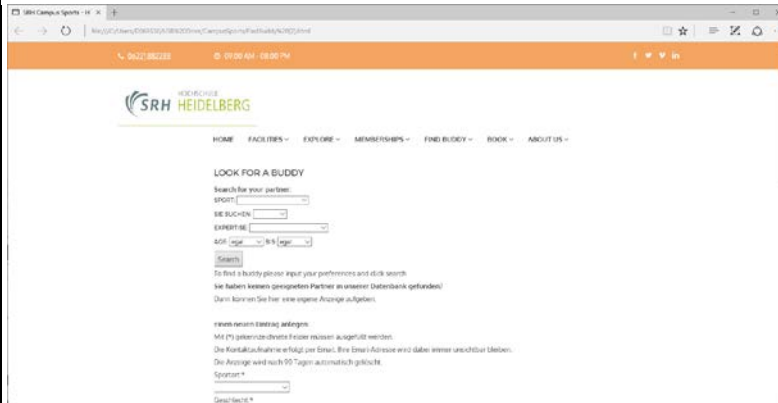
Conclusion: The high Fidelity prototype was presented for the users in Iteration 1 , As it was a early prototype , the responses was collected and necessary changes was made in Iteration 2 and 3.

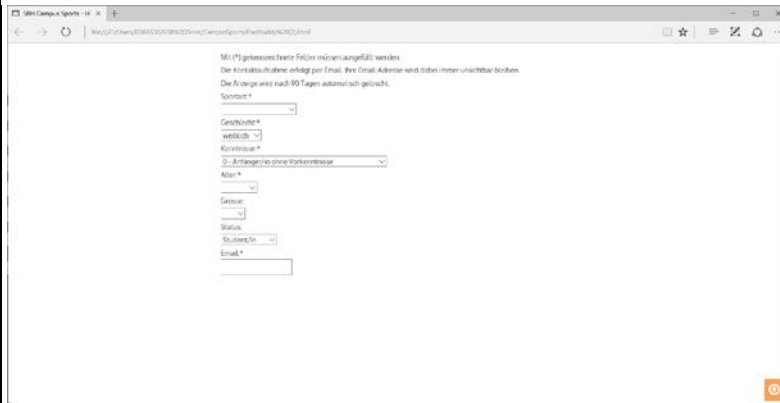
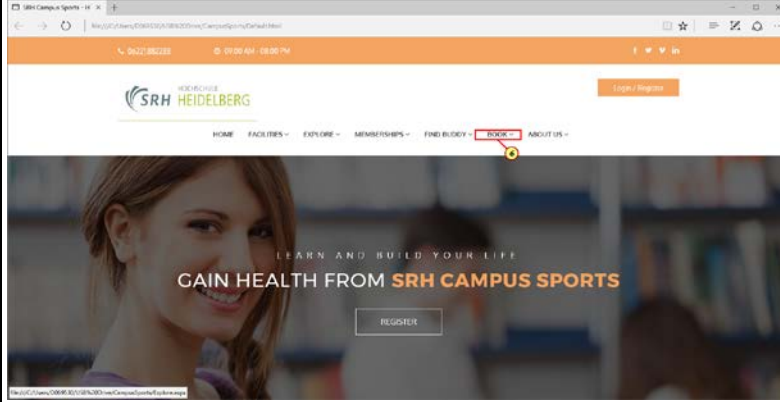
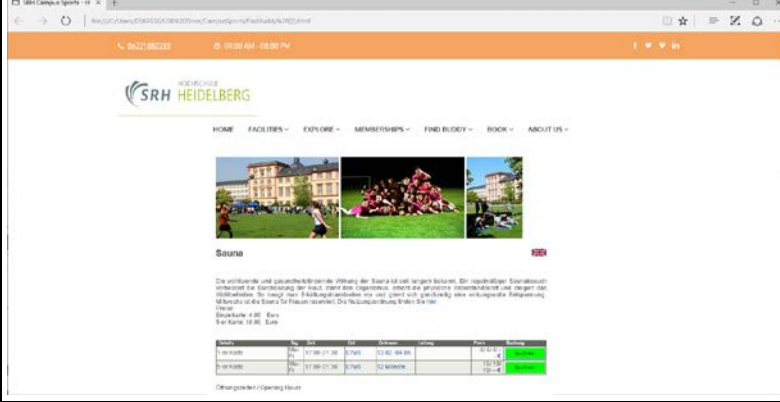
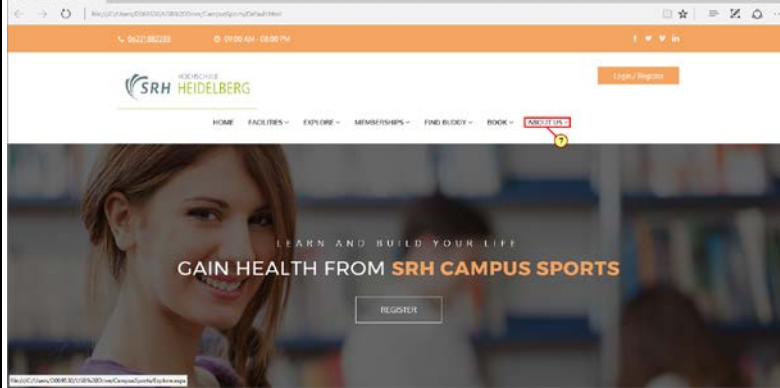
STAGE 9 – HIGH-FIDELITY PROTOTYPE

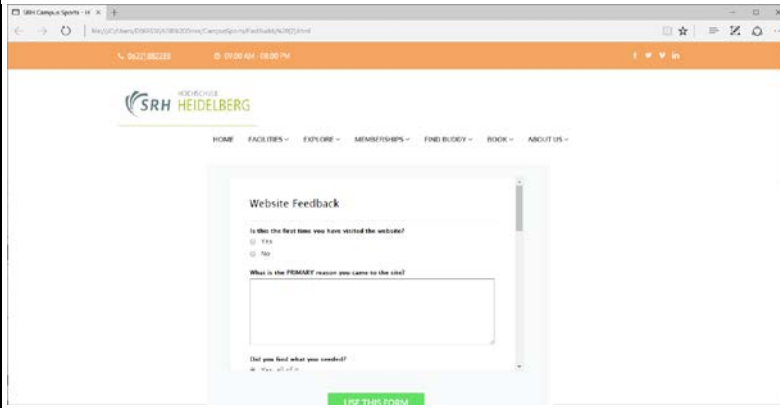
Action	Output
1. Click Login / Register	
This Page is User Login / Signup page . Scroll down for details	
Login and Signup page Is as shown	

Action	Output
2. Click FACILITIES ✓ .	
In Facility , Example is taken of Cardio and fitness	
In Facilities , One of the option is Cardio And Fitness. The Mouse scroll down takes you through the page	
Here , Other Facilities are also Provided incase the user is interested	

Action	Output
3. Click EXPLORE ▾ .	
In Explore, Option Called Courses Pops up, Here you can see different courses offered by the university , the user Scrolls down to see more	
This is a scroll down from Courses page	
4. Click MEMBERSHIPS ▾ .	

Action	Output																																			
<p>This Is a n Option in Membership , Where the user would get information about the cost and fees for individual courses offered</p> <p>Scroll down to see the fees structure</p>																																				
<p>User Gets all the information in this tab</p>	 <table><thead><tr><th rowspan="2">Membership</th><th colspan="3">MEMBERSHIPS</th></tr><tr><th>Initiation</th><th>Monthly</th><th>Yearly</th></tr></thead><tbody><tr><td>Adult</td><td>\$100</td><td>\$42</td><td>\$504</td></tr><tr><td>Family</td><td>\$120</td><td>\$52</td><td>\$744</td></tr><tr><td>Senior</td><td>\$80</td><td>\$35</td><td>\$420</td></tr><tr><td>Senior Couple</td><td>\$100</td><td>\$52</td><td>\$624</td></tr><tr><td>College</td><td>\$50</td><td>\$30</td><td>\$360</td></tr><tr><td>Teen</td><td>\$50</td><td>\$21</td><td>\$252</td></tr><tr><td>Plus Locker Initiation</td><td>\$0</td><td>\$10</td><td>\$120</td></tr></tbody></table> <p>ENROLL NOW!</p> <p>Secure Payments By </p>	Membership	MEMBERSHIPS			Initiation	Monthly	Yearly	Adult	\$100	\$42	\$504	Family	\$120	\$52	\$744	Senior	\$80	\$35	\$420	Senior Couple	\$100	\$52	\$624	College	\$50	\$30	\$360	Teen	\$50	\$21	\$252	Plus Locker Initiation	\$0	\$10	\$120
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<p>5. Click FIND BUDDY .</p>																																				
<p>This is an option in Find Buddy , Look for a buddy gets an option to find people to find buddies in the SRH Sports</p> <p>Scroll Down to Watch More</p>																																				

Action	Output
This Is the continuation for Find Buddy	
6. Click BOOK	
This is an option in Book where the people are able to book the court without confusion	
7. Click ABOUT US	

Action	Output
<p>About us gives options such as Contact, Feedback and Support Here we are showing the feedback part.</p> <p>End of the demo. Thank you</p>	

Conclusion: The High Fidelity prototype was done using SAP Work Performance Builder

Note: Please see our Live Demo presentation of our current High Fidelity Prototype in the attached folder named ***“Hi- Fi Prototype Full Demo”***

TECHNOLOGY/FRAMEWORK DECISIONS AND SOFTWARE ARCHITECTURE

FRONT END:

HTML 5, CSS, JavaScript

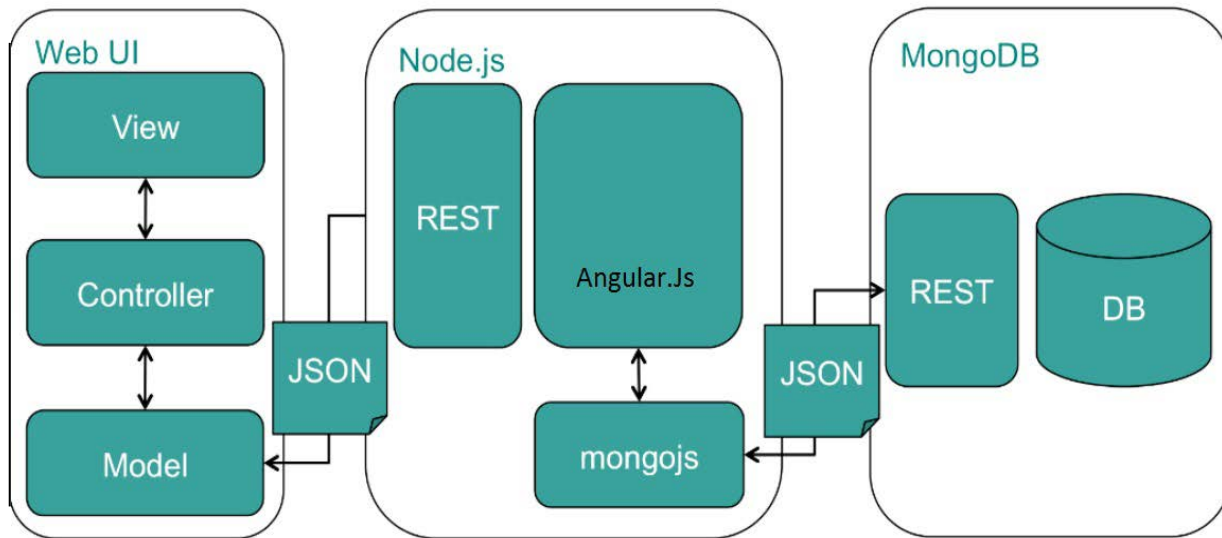
SOFTWARES:

Dreamweaver CC 2017, SAP Build, SAP Work Performance Builder

BACKEND:

MongoDB - MongoBooster

SOFTWARE ARCHITECTURE



CONCLUSION

Our goal is to ease the life of Sports trainers and as well as for the people who are using the facility

- Help the users to have their personal profile and view all their information in one page / Signup / Online membership.
- Help the users to book the courts available
- The user could find buddy having their interest and experience as per their requirement.

APPENDIX

EXPERIENCE MAP DIAGRAMS

