Project Summary

The SportsGather\_Illinois platform is a sports experience system that connects sports mates with similar sports interests, so that people have more incentives to exercise. The functions such as facility availability checking and court reservation are also supported to facilitate exercise experience. Moreover, the system provides a list of sports courses for users to gain professional training experience. The course videos and text instructions are available for self-paced learning. In-person practices with coach can be achieved through appointments and post-course survey are offered to users to improve courses.

Project Detailed Description

Exercising always helps people live a healthy life and relax themselves from pressure of work or study. However, people have less motivations to exercise when they can not find sports mates. Moreover, they can easily hurt themselves in some activities without professional training experience. Therefore, we want to develop a sports experience system that connects sports mates with similar sports interests based on their profile information, as well as offers professional sports courses for sports fans.

This system supports sports mates to check availability of facilities and reserve available space for exercise. It also has a "Come&Meetup" section where users can initiate activities and others can check out and join those they are interested in. Besides it, the system provides a list of sports courses which users can register to gain professional training experience. The course videos and text instructions are available on the platform for self-paced learning. The platform also allows users to make appointments with coach to get in-person practices. After the course is finished, users can provide feedbacks about their learning experience.

Usefulness

**a. Usefulness description**

Our application provides an all-in-one platform for sports lovers to take professional training courses and connect with sports mates with similar interests.   
Users can find interesting training courses and reliable coaches based on previous feedbacks on the platform. Also, they can connect with classmates of training classes or people with similar sports interests, as well as reserve facilities with their sports mates. All these sports needs can be met on our platform.

**b. Similar applications and how yours is different?**

There are some similar fitness and exercise applications, such as Nike Training Club and Map My Run. They serve as online personal trainers and provide customized workout plans for users.  
Our application is different in that it serves as a platform to connect sports lovers. Users can easily find sports mates with similar interests, take the same sports course, and join the upcoming sports activities together. With support from professional coaches and cheers from sports mates, users can stay motivated and go further.

Realness: How and where you’ll get the data?

Based on the functions of our project, we divide our data into two parts: virtual users’ input data and data which are provided and maintained in our backend. First, we will create some virtual users to test and simulate the functions of the system. These users' input data would include information on users’ profiles and some activities that users launch in the "Come&Meetup" discussion forum. In addition, we will provide some data as the infrastructure of the system, including locations of courts and available time slots of courts. We will web scrape these data and ensure its authenticity.

Description of the Functionalities

**1.Describe what data is stored in the database. (Where is the data from, what attributes and information would be stored?)**

we will create virtual users' input data to simulate the functions of the system. And, data about the exercise locations will be collected from web scraping.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table** | **Attribute** | | | | | | | | |
| Student | StudentId | FirstName | LastName | Age | Gender | Email | Phone | Location |  |
| Teacher | TeacherId | FirstName | LastName | Age | Gender | Email | Phone | Location |  |
| Hobby | StudentId | SportId | Year |  |  |  |  |  |  |
| Sport | SportId | SportName |  |  |  |  |  |  |  |
| Enrollment | EnrollmentId | CourseId | StudentId |  |  |  |  |  |  |
| Course | CourseId | Name | Sport | CourseTime | Location | TeacherId | Capacity | StartDate | EndDate |
| RateCourse | CourseId | StudentId | Rate |  |  |  |  |  |  |
| Court | CourtId | Name | Sport | Location |  |  |  |  |  |
| Reservation | ReservationId | StudentId | CourtId | BeginTime | EndTime |  |  |  |  |
| Appointment | AppointmentId | TeacherId | StudentId | ReservationId | GroupId |  |  |  |  |
| Message | MessageId | StudentId | LaunchTime | Content |  |  |  |  |  |

**2. What are the basic functions of your web application? (What can users of this website do? What simple and complex features are there?)**

1) Profile Editing: Users, including coaches and sports lovers, can create, edit, and save their profiles any time. The information on profiles includes their demographics and sports they are good at or interested in.

2) Sports Mates Matching: Users can search, use filters provided, or accept our recommendations (see section 3 below) to match the sports mates they want to exercise with.

3) Facility/Gym reservation & Availability Checking: Users can check the available time slots of facilities or gym and reserve places for exercise (e.g., basketball court).

4) Classmate inquiry: Once users register a course, they are able to view the information that are made to public by their classmates.

5) Making Appointment: Once users register a course, they can make appointments with the coach to get in-person or online practice.

6) Class Information Overview: Coaches can edit class information, including text information and course preview videos.

7) Come&Meetup: Any user can launch a sports activity and post relevant information such as place, time, and sports to play in this section, and others can check out and join them.

**3. What would be a good creative component (function) that can improve the functionality of your application? (What is something cool that you want to include? How are you planning to achieve it?)**

            1) Partner Recommendation: Our application will try to recommend sports mates based on their profile and preference. We plan to use the weighted average of attributes to get scores, and select users whose scores are closest to the target user's scores through SQL queries.

            2) Coach Rating: After users finish a course, they can rate the coach regarding teaching methods, workload, preparation for the class and so on. This rating function can help other users choose courses and best coaches. We will store these feedback of courses in a separate table.

**4. A low fidelity UI mockup: (a sketch) of your interface (at least two images)**

Project work distribution

* Yunchun Pan: The implementation of Profile Editing, Making Appointment, the investigation of sports category and related introduction information, great user interface design of profile page.
* Hanyang Xu: The implementation of Sports Mates Matching, Class Information Overview, the investigation of great user interface design of  Information Overview page.
* Zinan Zhao: Facility/Gym reservation & Availability Checking, Come&Meetup, the investigation of the information of the university facility, the user interface design of Come&Meetup page.
* Hong Yang: Classmate inquiry, Partner Recommendation, Coach Rating, the investigation of  recommendation algorithm,  the user interface design of Coach Rating page.