SPORTIFY IIITD

Team - 63



Samyak Jain | Kshitij Mohan | Harshal Dev Satwik Tiwari | Hitesh Garg

Week 1:

We first collectively brainstormed to find out some real world problems that we could solve through this opportunity of developing a DBMS project. The first whole week was spent in collecting ideas, discussing them amongst ourselves. We finally decided that we want to target the audience of our college and college environment in general and started to find out problems that are faced by students. After brainstorming, thinking, discussing our personal experiences and thoughts we arrived at our problem statement.

Problem Statement:

Sport is an essential component of a students' life. There is an important need for a management system for all the activities related to the same. In a busy routine of student life, it is challenging to find people to play along with. Also, it is a hassle to connect with people with the same sporting interests as you and adjust according to their schedule to play with them. Combining the hard-hitting nature of our college's (IIIT Delhi) schedule and crunch of sporting facilities like the small size of the ground, badminton court being occupied most of the time, it is difficult for one to play sports of their choice. There is a lack of a system that fills in this gap and promotes a healthy sporting culture in our college, and helps everyone get a chance to play the game of their choice with people sharing similar interests and skills. Similarly, if one needs to play a sport, but he doesn't have the required equipment or does the college, he has to "ask" his "friend/acquaintance" about it. It is possible that an unknown person might have the desired equipment, but he might not get the equipment because he doesn't know that person. So to bridge this gap and our problem mentioned above, we thought of working in this area.

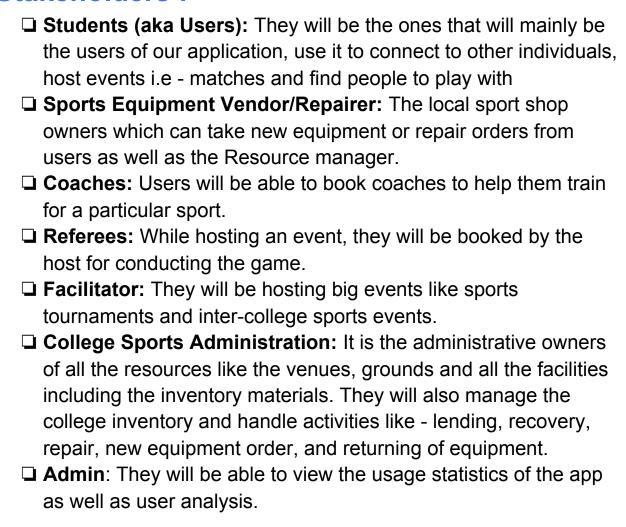
Our Motivation and the idea:

Our motivation stems from our want to bring about a sporting perception and revolution and culture in our college. We wanted to create a platform that solves all the problems listed above in an efficient manner. The platform will facilitate, systematic booking of events ike a cricket match, a football match etc. by firstly checking for availabilities of resources like equipments(if one wants to book any) and also the venues. It will also connect the people who share the same sporting interest so that we do not face the hassle of finding people to play with. This will also aim to bring the sporting community together which will help in forming good bonds and promote sport culture in general. Also, one can host events be it large scale league matches, or personal matches on the system easily. Our platform would also facilitate the facility of peer borrowing and lending. This way, people can share their equipments and play different sports. This facility of borrowing will also be done by users from the college sporting equipment inventory as well. This system will ensure efficient functioning of the same as the users can easily check the availability of the same easily and much more people can get the chance to use it and play. Also, the feature of checking availability of venues will be provided and a booking system for the same is also provided. The application will also feature various vendors to which either the user or the college sports administration can approach to either buy or repair their products. So in all, our application is a wide covering one which aims to promote sporting culture and encourage more people to play by efficiently managing the sporting system in the college.

Week 2:

We started this phase of the project by identifying the stakeholders for our project. We aimed to identify all such groups and people who would be affected by our application.

Stakeholders:



After identification of stakeholders, we decided that we would also like to feature the following extra features in our application.

More ideas to implement:

- Lending borrowing system among the users also apart from the college inventory.
- Live status tracking of the venues
- Interaction amongst the users through which they can discuss various things, ask for equipment suggestions and build a community.
- Adding friends based on similar interest tags.
- Rating feature also will be included
- Notifying the participants for the event
- Login and signup for making a record of users to the database
- Wallets for users which allows them to place repair or new orders.
- High skilled Students can act as a coach also and become referees.

Queries for Stakeholders:

☐ Student/ User:

- Book Venue
- Host Public Event
- Lend Equipment
- Borrow Equipment
- Order Equipment (Repairs also)
- Invite Friends
- Check venue availability
- Join Events
- Ask for coaches

- Give ratings
- View event statistics

☐ College Sports Administration:

- Place Equipment orders
- Place repair orders
- Lend Equipment
- Check equipment availability
- Check equipment status
- Request equipment/repairs
- Add penalties

□ Sports Equipment Vendor/Repairer:

- Check buy orders
- Check repair orders
- Request payment
- Send delivery order
- Check delivery status
- Update repair status

□ Coaches:

- Update booking status
- Update availability
- Request payments (from users)
- View ratings

☐ Referee:

- Get event details
- Update availability (his/her own availability status & timings)
- Add event results
- Request payments (from facilitators)

☐ Facilitator (basically students who can host official matches):

- Host Events
- Update event statistics (player details)
- Book referee
- Check venue availability
- Check equipment availability
- Add event notice

□ Application Admin:

- Get user statistics
- Get application reviews

So, the Sports we plan to include are:

Badminton Tennis, Basketball, Table Tennis, Squash, Cricket, Football, Volleyball, Foosball, Billiards, Chess, Swimming Because majorly these are the ones that are commonly played in the college.

Week 3:

After deciding the stakeholders, roughly writing their queries and commands as such. We now move on to planning and deciding the entities and their corresponding attributes.

ENTITIES AND ATTRIBUTES:

☐ Students / Users:

- Name (varchar)
 - First Name (varchar)
 - Last Name (varchar)
- Student/User ID (int)

- Gender(varchar)
- Contact Details
 - E-Mail (varchar)
 - Phone number (varchar)
- Date of Birth (Date)
- Date of Joining(Date)
- Address Location (varchar)

□ College Sports Administration :

- Administration ID (int)
- Name(varchar)
 - First Name(varchar)
 - Last Name(varchar)
- Office Location(varchar)
- Contact Details (varchar)
 - Email (varchar)
 - Phone Number (varchar)

☐ Sports Equipment Vendor/Repairer :

- Vendor ID(int)
- Shop Name(varchar)
- Location(varchar)
- Equipment repaired (int)
- Contact Details (str)
 - Phone number(varchar)
 - Email (varchar)

☐ Coaches:

- Name (varchar)
 - First Name(varchar)
 - Last Name(varchar)
- Coach Id (int)
- Gender(varchar)
- Date of Birth(Date)
- Number of Players Coached(int)

- Ratings (float)
- Availability Status (TinyInt)
- Contact Details(varchar)
 - Phone Number(varchar)
 - Email id(varchar)

☐ Referee:

- Referee Id (int)
- Gender(varchar)
- Referee Name (varchar)
 - First Name(varchar)
 - Last Name(varchar)
- Date of Birth (Date)
- No of Games refereed (int)
- Availability Status (TinyInt)
- Contact Details(varchar)
 - Email id(varchar)
 - Phone number(varchar)

☐ Venue:

- Venue ID (int)
- Opening Time(DateTime)
- Closing Time(DateTime)
- Venue Type (varchar)
- Location (varchar)
- Occupancy Status (TinyInt)
- No of Current team/players (int)

□ Equipment :

- Equipment ID (int)
- Equipment Name(varchar)
- Condition(varchar)
- Availability Status (TinyInt)

☐ College Equipment

- Equipment Name(varchar)
- Condition(varchar)
- Availability Status(TinyInt)
- Manufacturer(varchar)

□ Sport Event :

- Event ID (int)
- Event Name(varchar)
- EventDate (Date)
- Start Time (Date)
- End Time (Date)
- Event Duration(float)
- Participation Limit(int)

☐ Order:

- Order Status (Pending / Complete) (varchar)
- Order ID (int)
- Type (which sport's equipment) (varchar)

☐ Sport :

- Sport ID (int)
- Name (varchar)
- Max Players (int)

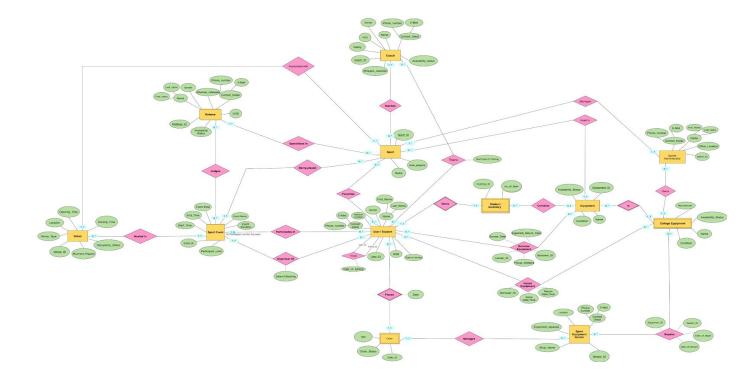
Majorly, these entities are identified that would be needed for the first development phase of the project. Further, we proceed to identify relationships among these entities.

- User organises Sport Event
- User participates in Sport Event
- User *favorites* Sport (preferred, favorite sports)
- Coach trains User
- User *places* Orders (like for repair, buy orders)

- Order is managed by the Sport Equipment Vendor
- Sport Equipment Vendor repairs college equipments
- User owns a Student Inventory
- Student Inventory *contains* equipments
- College equipments are also equipments
- College equipment is *owned by* Sports Administrators.
- A Sport Administrator manages a sport.
- Equipment is *used in* a sport.
- User *borrows* Equipment (peer to peer)
- User *makes friends* with other Users (who have similar interests)
- Coach *teaches* a Sport
- A Sport event is hosted in a Venue
- Referee judges a Sport Event
- Referee specializes in a Sport
- A Venue is associated with some Sport
- A Sport is being played in a Sport event
- User issues College Equipments

<u>Week 4:</u>

Till now we have decided the stakeholders, what they expect the system to do, the major entities, their attributes and how they will be related. Now we move on to design the ER diagram for the project.



Week 5:

We have made the ER diagram for our project. Now we proceed to decide the schema for the tables.

SCHEMA:

PK: Denotes the primary key present directly in the table. FK: Denotes the foreign key present directly in the table.

2nd column: columns for that table

3rd column: data type

4th column : domain, constraints, checks required if any.

<u>USER</u>

PK	User_ID	int	Not null, unsigned, unique
	First_name	varchar(25)	Not null
	Last_name	varchar(25)	Not null
	Gender	varchar(6)	Not null, check(Gender in ('Male', 'Female','Others'))
	Email	varchar(100)	Not null, unique, check for invalid characters, multiple '@' symbols etc.
	Phone_number	varchar(15)	Not null, unique, length should not exceed 15 characters(including code)

Date_of_Birth (DOB)	Date	Not null, should be ideally less than or equal to current date.
Age	int	Not Null, unsigned, Age >= 18
Date_of_Joining (DOJ)	Date	Not null, check DOJ > DOB
Address_Location	varchar(200)	Not null

SPORT_EVENT

PK	Event_ID	int	Not null, unsigned, unique
	Event_Name	varchar(60)	Not null
	Event_Date	Date	Not null, should ideally greater than equal to current date
	Start_Time	DateTime	Not null, should ideally greater than equal to current time.
	End_Time	DateTime	Not null, check End_time > start time
	Duration	float	Not null, unsigned

	Participant_Limit	int	Not null, unsigned, default = max size{sport played} else entered by user
	Date_of_Booking	Date	Not null, should ideally greater than equal to current date
FK	Organizer_ID	int	Not null, unique, unsigned
FK	Venue_ID	int	Not null, unique, unsigned
FK	Sport_ID	int	Not null, unique, unsigned

Referential Integrity Constraints:

- Foreign Key Organizer_ID references to User(User_ID).
- Foreign Key Venue_ID references to Venue(Venue_ID).
- Foreign Key Sport_ID references to Sport(Sport_ID).

VENUE

PK	Venue_ID	int	Not null, unsigned, unique
	Venue_Name	varchar(100)	Not null
	Venue_Type	varchar(6)	Not null, check(Venue_Type in ('Indoor', 'Outdoor'))
	Opening_Time	DateTime	Not null

	Closing_Time	DateTime	Not null, check Closing_time > Opening_Time
	Location	varchar(150)	Not null
	Occupancy_Status	TinyInt	Not null, value lies in {0,1} works as kind of a boolean check
	No_of_current_players_in_ven ue	int	Not null, greater than equal to 0
FK	Sport_ID	int	Not null, unsigned, unique,

Referential Integrity Constraints :

- Foreign Key Sport_ID references to Sport(Sport_ID).

REFEREE

PK	Referee_ID	int	Not null, unsigned, unique
	First_name	varchar(25)	Not null
	Last_name	varchar(25)	Not null
	Gender	varchar(6)	Not Null, check(Gender in ('Male', 'Female','Others'))
	Email	varchar(100)	Not null, unique, check for invalid characters, multiple '@' symbols etc.

	Phone_number	varchar(15)	Not null, unique, length should not exceed 15 characters(including code)
	Date_of_Birth (DOB)	Date	Not null, should be ideally less than or equal to current date.
	Availability_Status	TinyInt	Not null, value lies in {0,1} works as kind of a boolean check
	no_of_Games_refereed	int	Not null, unsigned, default starting value = 0
FK	Specialization_Sport_ID	int	Not null, unsigned, unique,

Referential Integrity Constraints :

- Foreign Key Specialization_Sport_ID references to Sport(Sport_ID).

COACH

PK	Coach_ID	int	Not null, unsigned, unique
	First_name	varchar(25)	Not null
	Last_name	varchar(25)	Not null
	Gender	varchar(6)	Not Null, check(Gender in ('Male', 'Female','Others'))
	Email	varchar(100)	Not null, unique, check for invalid characters, multiple '@' symbols etc.

	Phone_number	varchar(15)	Not null, unique, length should not exceed 15 characters(including code)
	Date_of_Birth (DOB)	Date	Not null, should be ideally less than or equal to current date.
	Availability_Status	TinyInt	Not null, value lies in {0,1} works as kind of a boolean check
	no_of_player_coached	int	Not null, unsigned, default starting value = 0
	Rating	float	Not null, unsigned, lies b/w [1,5]
FK	Specialization_Sport_ID	int	Not null, unsigned, unique

Referential Integrity Constraints:

- Foreign Key Specialization_Sport_ID references to Sport(Sport_ID).

SPORT

PK	Sport_ID	int	Not null, unsigned, unique
	Name	varchar(100)	Not null
	Maximum_Players	int	Not null, unsigned, greater than zero

EQUIPMENT

PK	Equipment_ID	int	Not null, unique, unsigned
	Name	varchar(100)	Not null
	Availability_Status	TinyInt	Not null, value lies in {0,1} works as kind of a boolean check
	Condition	varchar(7)	Not null, check(Condition in ('Poor','Average', 'Good')
FK	Sport_ID	int	Not null, unique, unsigned
FK	Owner_ID	int	Can be null, (due to many to one, partial participation)

Referential Integrity Constraints:

- Foreign Key Sport_ID references to Sport(Sport_ID).
- Foreign Key Owner_ID references the Owner_ID part of primary key(formed from conjunction of attributes with foreign key) of Student Inventory which further references to User(User_ID). This helps us to uniquely identify the owner of the inventory.

VENDOR

PK	Vendor_ID	int	Not null, unsigned, unique
	Shop_name	varchar(100)	Not null
	Email	varchar(100)	Not null, unique, check for invalid characters, multiple '@' symbols

		etc.
Phone_number	varchar(15)	Not null, unique, length should not exceed 15 characters(including code)
no_of_equipment_repaired	int	Not null, unsigned, default = 0
Address_Location	varchar(200)	Not null

SPORT_ADMINISTRATOR

PK	Admin_ID	int	Not Null, unique, unsigned
	First_name	varchar(25)	Not null
	Last_name	varchar(25)	Not null
	Email	varchar(100)	Not null, unique, check for invalid characters, multiple '@' symbols etc.
	Phone_number	varchar(15)	Not null, unique, length should not exceed 15 characters(including code)
	Office_Location	varchar(200)	Not null

FK	Managing_Sport_ID	int	Not Null, unique, unsigned

Referential Integrity Constraints:

- Foreign Key Managing_Sport_ID references to Sport(Sport_ID).

STUDENT_INVENTORY

Discriminator	Inventory_ID	int	Not null, unsigned, unique
	Item_Count	int	Not Null, unsigned, default starting value equal to 0
	Owner_id	int	Not null, unsigned, unique

Primary Key : (Owner_ID, Inventory_ID)

Referential Integrity Constraints:

- Foreign Key User_ID references to User(User_ID)

COLLEGE_EQUIPMENTS

Discriminator	Name	varchar(100)	Not null
	Availability_Status	TinyInt	Not null
	Condition	varchar(7)	Not null, check(Condition in ('Poor','Average', 'Good')
	Equipment_ID	int	Not Null, unique, unsigned, references EQUIPMENT(Equipment_ID)

Manufacturer	varchar(20)	Not null
Owner_Admin_ID	int	Not null, unsigned, unique

Primary Key : (Name, Equipment_ID, Owner_Admin_ID)

Referential Integrity Constraints:

- Foreign Key Owner Admin ID references to Sport Administrator(Admin ID).
- Foreign Key Equipment ID references to Equipment(Equipment ID).

ORDER

Discriminator	Order_ID	int	Not Null, unique, unsigned
	Туре	varchar(100)	Not null
	Order_Status	varchar(8)	Not null, check(Order_Status in ('COMPLETE', 'PENDING')
	User_ID	int	Not null, unique, unsigned, references USER(User_ID)
	Equipment_ID	int	Not Null, unique, unsigned, references EQUIPMENT(Equipment_ID)
	Vendor_ID	int	Not null, unsigned, unique

Primary Key: (User_ID, Order_ID)
Referential Integrity Constraints:

- Foreign Key Vendor_ID references to Vendor(Vendor_ID)
- Foreign Key Equipment_ID references to Equipment(Equipment_ID).
- Foreign Key User_ID references to User(User_ID)

FAVORITES

FK	Sport_ID	int	Not null, unique, unsigned
FK	User_ID	int	Not null, unique, unsigned

- Primary Key : (User_ID, Sport_ID)
- Referential Integrity Constraints :
 - Foreign Key Sport_ID references to Sport(Sport_ID)
 - Foreign Key User_ID references to User(User_ID)

TRAINS

FK	Coach_ID	int	Not null, unique, unsigned
FK	User_ID	int	Not null, unique, unsigned
	Start_Date	Date	not null

Primary Key: (User_ID, Sport_ID, Start_Date)

- Referential Integrity Constraints :
 - Foreign Key Coach_ID references to Sport(Coach_ID)
 - Foreign Key User_ID references to User(User_ID)

FRIEND

FK	User_ID	int	Not null, unique, unsigned
FK	Friend_ID	int	Not null, unique, unsigned

Date_of_Adding	Date	not null

Primary Key : (User_ID, Sport_ID, Date_of_Adding)

- Referential Integrity Constraints :
 - Foreign Key Friend ID references to User(User ID)
 - Foreign Key User_ID references to User(User_ID)

ISSUES EQUIPMENTS

FK	Borrower_ID	int	Not null, unique, unsigned
FK	Equipment_ID	int	Not null, unique, unsigned
	Issue_Date_Time	DateTime	not null
	Expected_Return_Date_Time	DateTime	Not null, Expected_Return_Date_Tim e <= Issue_Date_Time

Primary Key : (Borrower_ID, Equipment_ID)

- Referential Integrity Constraints :
 - Foreign Key Borrower_ID references to User(User_ID)
 - Foreign Key Equipment_ID references to Equipment(Equipment_ID).

JUDGES

FK	Event_ID	int	Not null, unique, unsigned
FK	Referee_ID	int	Not null, unique, unsigned

Primary Key : (Event_ID, Referee_ID)

- Referential Integrity Constraints :
 - Foreign Key Event_ID references to Sport_Event(Event_ID)
 - Foreign Key Referee_ID references to Referee(Referee_ID)

REPAIRS (COLLEGE EQUIPMENTS)

FK	Vendor_ID	int	Not null, unsigned, unique
FK	College_Equipment_ID	int	Not Null, unsigned, unique
	Date_of_Repair	Date	Not null
	Date_of_Return	Date	Not null, Date_of_Return >= Date_of_Repair

- Primary Key: (Vendor_ID, College_Equipment_ID)
- Referential integrity Constraints :
- Foreign Key Vendor ID references to Vendor(Vendor ID)
- Foreign Key College_Equipment_ID references Equipment_ID part of the primary key (formed from conjunction of attributes with foreign key) of College Equipment which further references Equipment(Equipment_ID).

PARTICIPATES IN

FK	User_ID	int	Not null, unique, unsigned
FK	Event_ID	int	Not null, unique, unsigned

- Primary Key : (User_ID, Event_ID)
- Referential Integrity Constraints :
 - Foreign Key Event_ID references to Sport_Event(Event_ID)
 - Foreign Key User_ID references to User(User_ID)

BORROWS EQUIPMENTS

FK	Lender_ID	int	Not null, unique, unsigned
FK	Borrower_ID	int	Not null, unique, unsigned
FK	Equipment_ID	int	Not null, unique, unsigned
	Issue_Date_Time	DateTime	Not null
	Pickup_Address	Varchar(200)	Not null
	Expected_Return_Date_Time	DateTime	Not null, Expected_Return_Date_Tim e <= Issue_Date_TIme

Primary Key : (Lender_ID, Borrower_ID, Equipment_ID)

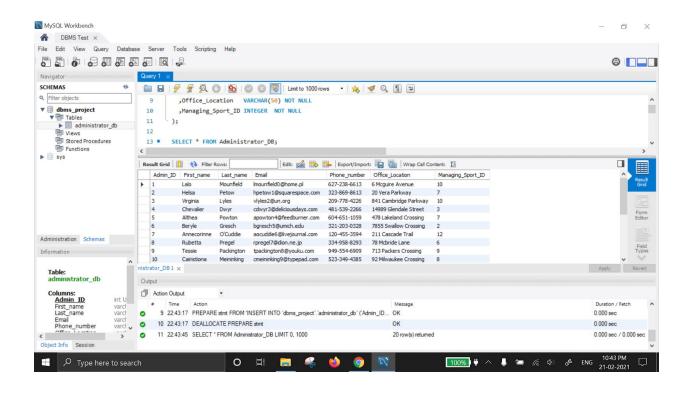
- Referential Integrity Constraints :
 - Foreign Key Lender_ID references to User(User_ID)
 - Foreign Key Borrower_ID references to User(User_ID)
 - Foreign Key Equipment_ID references to Equipment(Equipment_ID)

Week 6:

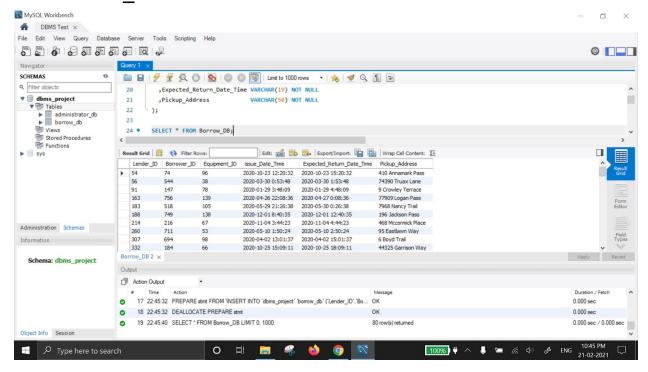
After creating the ER and designing the schema, we move on to make the tables and populate them with meaningful and sizable data.

These are some of the screenshots of the tables formed by us.

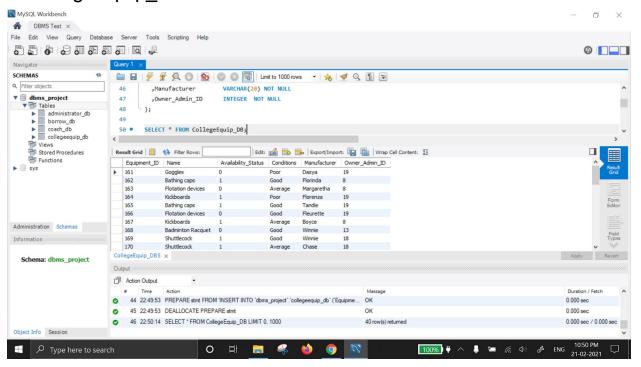
1. Administrator_DB



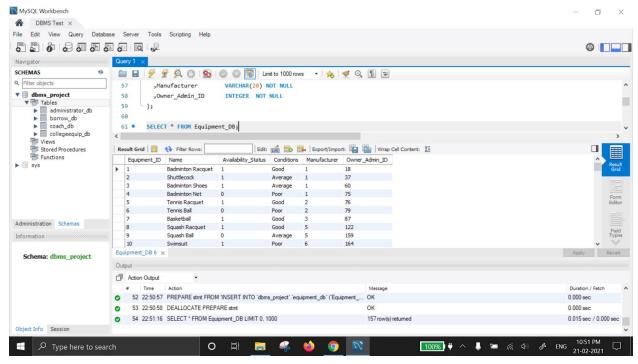
2. Borrow DB



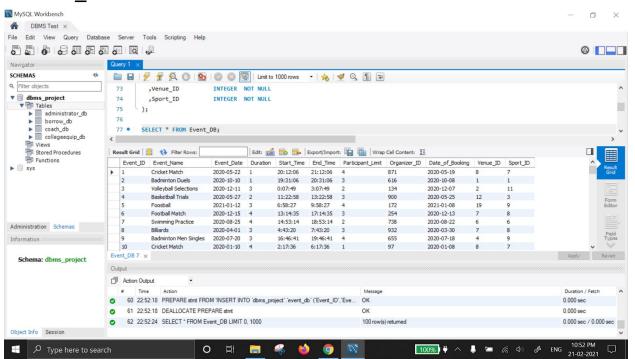
3. CollegeEquip_DB



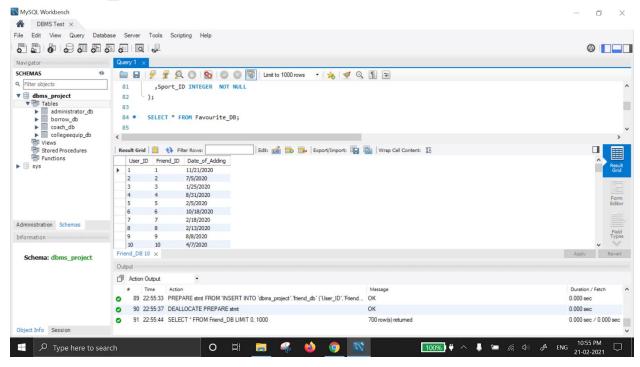
4. Equipment DB



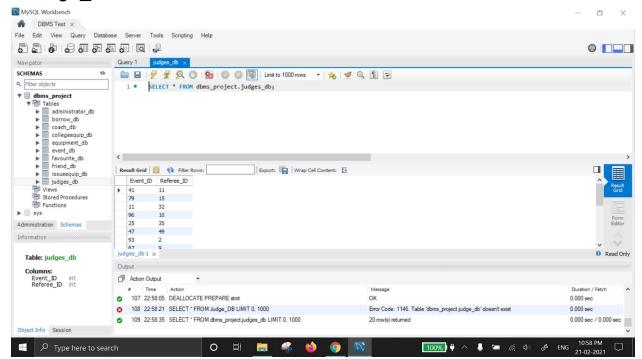
5. Event DB



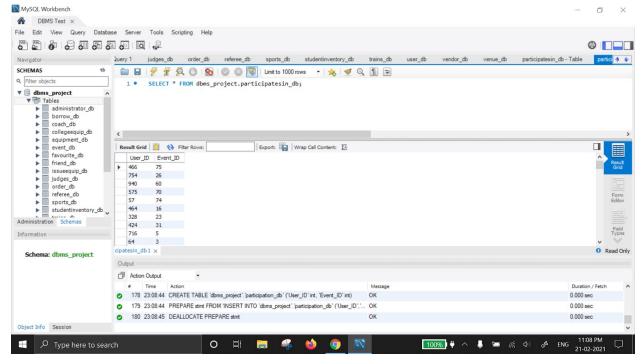
6.Favourite DB



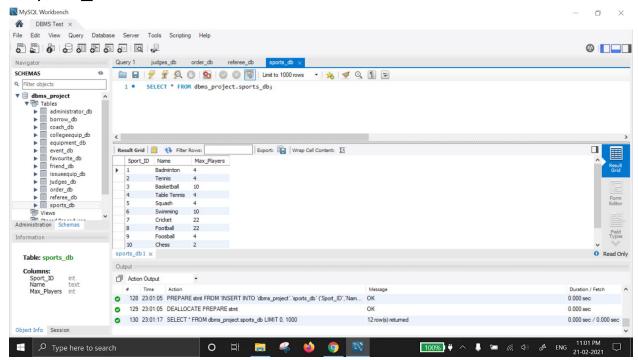
7.Judge_DB



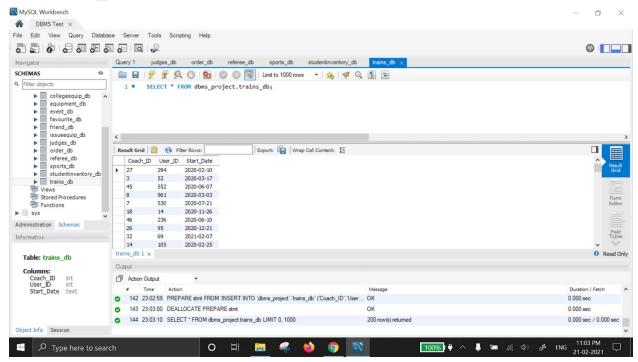
8. Participation DB



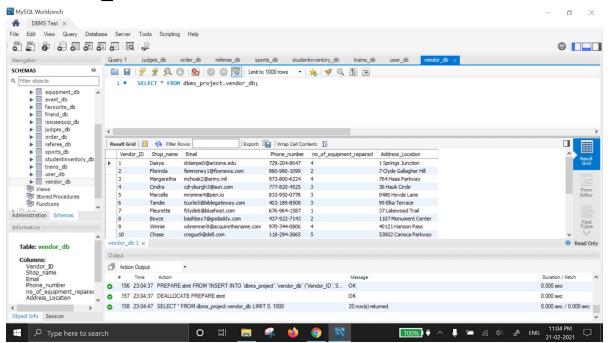
9.Sports DB



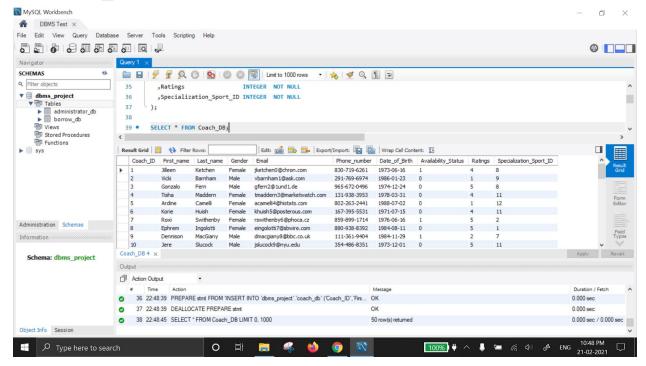
10. Trains_DB



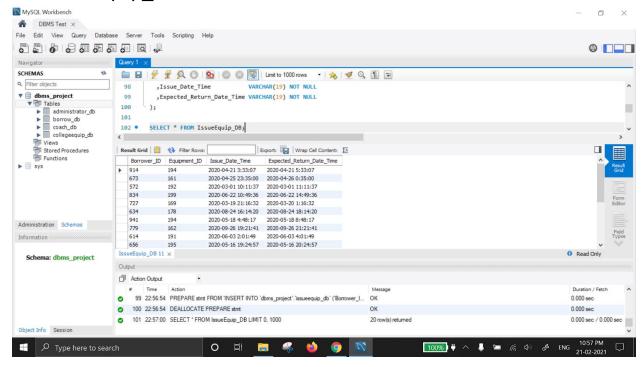
11. Vendor DB



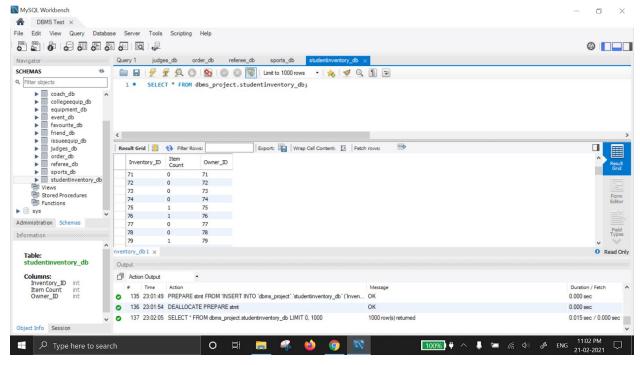
12. Coach_DB



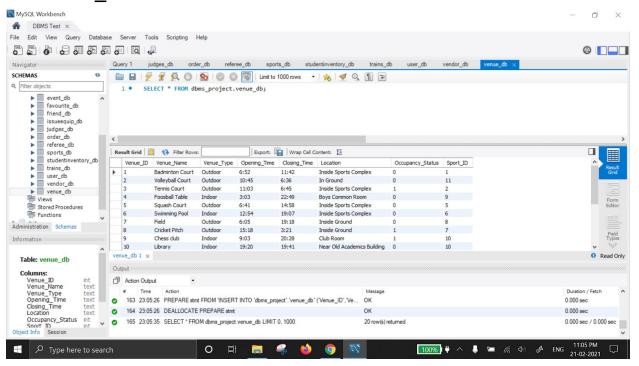
13. IssueEquip_DB



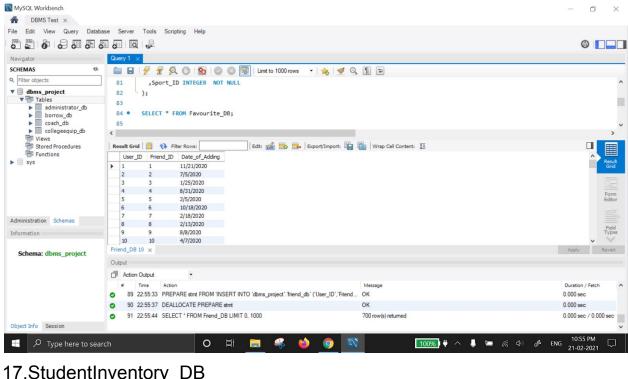
14.Referee_DB



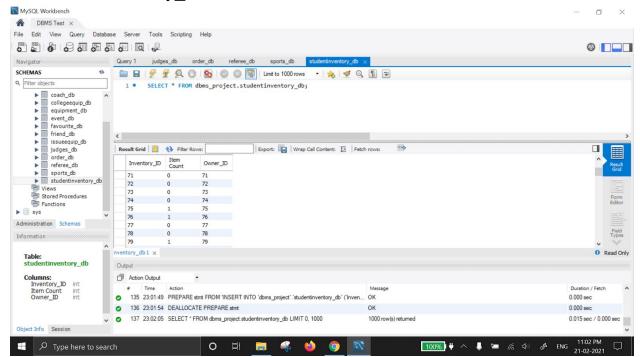
15. Venue DB

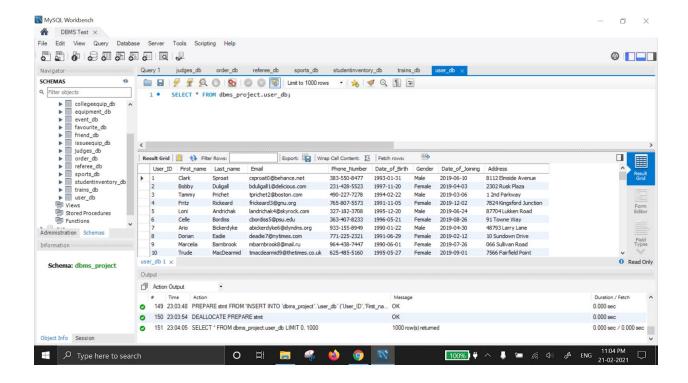


16. Friend DB

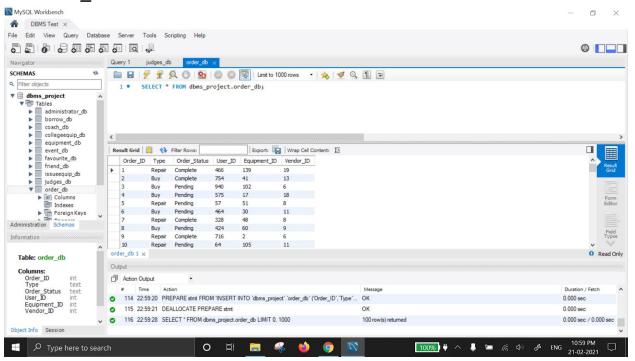


17.StudentInventory DB





19. Order DB



Individual Contribution:

As a team, we gelled pretty well together. We regularly met on Google Meet and Discord and had timely meetings. We all worked together with inputs coming from all the members equally. Almost all the work done has some or the other part of everyone's contribution. We divided the work equally, made the tables together. All the work was reviewed by every other teammate and thorough discussion was done on the same too.

Samyak Jain: Active participation in the ideation process, Coming up with Stakeholder queries, decided on some part of entities and attributes, Forming the ER Diagram, designing the schema and making the schema, Creation of tables, filling up some of tables.

Kshitij Mohan: Active participation in the ideation process, Coming up with Stakeholder queries, decided on the part of entities and attributes, making the schema, Creation of tables, Filling up the tables

Harshal Dev: Active participation in the ideation process, Forming and Writing the problem statement, decided on the part of entities and attributes, Forming the ER Diagram, designing the schema, creation of some tables, filling up the tables.

Satwik Tiwari: Active participation in the ideation process, Forming and Writing the problem statement, decided on part of entities and attributes, making the schema, creation of some tables, filling up the tables

Hitesh Garg: Active participation in the ideation process, Coming up with Stakeholder queries, decided on spart of entities and attributes, Forming the ER diagram, making the schema, creation of some tables, filling up tables.

Code:

```
CREATE TABLE Administrator DB(
              INTEGER UNSIGNED NOT NULL UNIQUE PRIMARY
 Admin ID
KFY
              VARCHAR(20) NOT NULL
 First name,
              VARCHAR(20) NOT NULL
 Last name
            VARCHAR(50) NOT NULL
 .Email
 ,Phone number
                VARCHAR(12) NOT NULL
 ,Office Location VARCHAR(50) NOT NULL
 , Managing Sport ID INTEGER NOT NULL
);
SELECT * FROM Administrator DB;
CREATE TABLE Borrow DB(
 Lender ID
                  INTEGER UNSIGNED NOT NULL UNIQUE
PRIMARY KEY
 Borrower ID
                  INTEGER NOT NULL
,Equipment ID
                  INTEGER NOT NULL
                    VARCHAR(19) NOT NULL
 issue Date Time
 ,Expected Return Date Time VARCHAR(19) NOT NULL
                    VARCHAR(50) NOT NULL
 ,Pickup Address
);
SELECT * FROM Borrow DB;
CREATE TABLE Coach DB(
                 INTEGER UNSIGNED NOT NULL UNIQUE
 Coach ID
PRIMARY KEY
                 VARCHAR(20) NOT NULL
 First name,
                 VARCHAR(20) NOT NULL
 ,Last name
 ,Gender
                VARCHAR(10) NOT NULL
```

```
VARCHAR(50) NOT NULL
 .Email
 Phone number
                    VARCHAR(12) NOT NULL
 ,Date of Birth
                  DATE NOT NULL
 ,Availability Status
                   TINYINT NOT NULL
 ,Ratings
                INTEGER NOT NULL
 ,Specialization Sport ID INTEGER NOT NULL
);
SELECT * FROM Coach DB;
CREATE TABLE CollegeEquip DB(
                 INTEGER UNSIGNED NOT NULL UNIQUE
 Equipment ID
PRIMARY KEY
              VARCHAR(20) NOT NULL
 .Name
 ,Availability_Status TINYINT NOT NULL
 .Conditions
               VARCHAR(10) NOT NULL
                VARCHAR(20) NOT NULL
 ,Manufacturer
 ,Owner Admin ID
                   INTEGER NOT NULL
);
SELECT * FROM CollegeEquip DB;
CREATE TABLE Equipment DB(
 Equipment ID
                 INTEGER UNSIGNED NOT NULL UNIQUE
PRIMARY KEY
 .Name
              VARCHAR(20) NOT NULL
 ,Availability Status TINYINT NOT NULL
 ,Conditions
               VARCHAR(10) NOT NULL
                VARCHAR(20) NOT NULL
 ,Manufacturer
 Owner Admin ID
                   INTEGER NOT NULL
);
SELECT * FROM Equipment DB;
CREATE TABLE Event DB(
```

```
INTEGER UNSIGNED NOT NULL UNIQUE PRIMARY
 Event ID
KEY
 ,Event Name
              VARCHAR(50) NOT NULL
 Event Date,
              DATE NOT NULL
 ,Duration
            INTEGER NOT NULL
 ,Start_Time VARCHAR(8) NOT NULL
 ,End Time VARCHAR(8) NOT NULL
 ,Participant Limit INTEGER NOT NULL
 ,Organizer ID
              INTEGER NOT NULL
 ,Date of Booking DATE NOT NULL
 ,Venue_ID INTEGER NOT NULL
             INTEGER NOT NULL
 ,Sport_ID
);
SELECT * FROM Event DB;
CREATE TABLE Favourite DB(
 User ID INTEGER NOT NULL PRIMARY KEY
 ,Sport ID INTEGER NOT NULL
);
SELECT * FROM Favourite_DB;
CREATE TABLE Friend DB(
 User ID
           INTEGER NOT NULL PRIMARY KEY
 Friend ID,
           INTEGER NOT NULL
 ,Date_of_Adding TEXT NOT NULL
);
DROP TABLE Friend DB;
SELECT * FROM Friend DB;
CREATE TABLE IssueEquip DB(
 Borrower ID
              INTEGER NOT NULL PRIMARY KEY
 Equipment ID,
                 INTEGER NOT NULL
```

```
,Issue Date Time VARCHAR(19) NOT NULL
 ,Expected Return Date Time VARCHAR(19) NOT NULL
);
CREATE TABLE Judge DB(
 Event ID INTEGER NOT NULL PRIMARY KEY
 ,Referee ID INTEGER NOT NULL
);
CREATE TABLE Order DB(order db
           INTEGER UNSIGNED NOT NULL UNIQUE PRIMARY KEY
 Order ID
 ,Order Type
               VARCHAR(10) NOT NULL
 ,Order Status VARCHAR(10) NOT NULL
           INTEGER NOT NULL
 User ID
 ,Equipment ID INTEGER NOT NULL
 ,Vendor ID INTEGER NOT NULL
);
CREATE TABLE Referee DB(
 Referee ID
                 INTEGER UNSIGNED NOT NULL UNIQUE
PRIMARY KEY
                VARCHAR(20) NOT NULL
 First name
                 VARCHAR(20) NOT NULL
 ,Last name
 ,Gender
                VARCHAR(10) NOT NULL
               VARCHAR(50) NOT NULL
 .Email
 ,Phone number
                   VARCHAR(12) NOT NULL
 ,Date of Birth
                 DATE NOT NULL
 ,Availability Status BIT NOT NULL
 ,Games refereed
                    INTEGER NOT NULL
 ,Specialization Sport ID INTEGER NOT NULL
);
CREATE TABLE Sports DB(
 Sport ID INTEGER UNSIGNED NOT NULL UNIQUE PRIMARY KEY
 .Name
          VARCHAR(20) NOT NULL
```

```
,Max Players INTEGER NOT NULL
);
CREATE TABLE StudentInventory DB(
 Inventory ID INTEGER NOT NULL PRIMARY KEY
 Item Count BIT NOT NULL
Owner ID,
           INTEGER NOT NULL
);
CREATE TABLE Trains_DB(
 Coach ID INTEGER NOT NULL PRIMARY KEY
 User ID INTEGER NOT NULL
 ,Start Date DATE NOT NULL
);
CREATE TABLE User DB(
            INTEGER UNSIGNED NOT NULL UNIQUE PRIMARY
 User ID
KEY
 ,First name VARCHAR(20) NOT NULL
 ,Last name VARCHAR(20) NOT NULL
 .Email
           VARCHAR(50) NOT NULL UNIQUE
 ,Phone_Number VARCHAR(12) NOT NULL UNIQUE
 ,Date of Birth DATE NOT NULL
 ,Gender
            VARCHAR(6) NOT NULL
 ,Date of Joining DATE NOT NULL
 ,Address
            VARCHAR(50) NOT NULL
);
CREATE TABLE Vendor DB(
 Vendor ID
                  INTEGER UNSIGNED NOT NULL UNIQUE
PRIMARY KEY
 Shop name,
                   VARCHAR(20) NOT NULL
 .Email
               VARCHAR(50) NOT NULL
                    VARCHAR(12) NOT NULL
 ,Phone number
 ,no of equipment repaired INTEGER NOT NULL
```

```
,Address_Location
                   VARCHAR(50) NOT NULL
CREATE TABLE Venue DB(
             INTEGER UNSIGNED NOT NULL UNIQUE PRIMARY
 Venue ID
KEY
 ,Venue Name
              VARCHAR(20) NOT NULL
              VARCHAR(10) NOT NULL
 ,Venue_Type
 ,Opening_Time
               VARCHAR(5) NOT NULL
 ,Closing Time
              VARCHAR(5) NOT NULL
 ,Location
            VARCHAR(50) NOT NULL
 ,Occupancy_Status BIT NOT NULL
            INTEGER NOT NULL
,Sport_ID
);
```