INTRODUCTION

The Sports at ABV-IIITM an integral part of the education process. The students have various sports facilities that they enjoy every day on campus. Presently, IIITM has one cricket field, two tennis courts, two volleyball courts, a football field, a hockey field, a gymnasium, three basketball courts, two badminton courts. All the sports facilities have floodlight arrangements to play after sunset. Adequate sets of sports equipment have also been provided to the students and staff on the campus. In all these sports activities the students practice and enjoy sports activities during leisure time in the morning and evening. The institute also encourages students to participate in winter-sport events and other competitions. The appointment of a coach has further augmented sports-related activities in the campus.

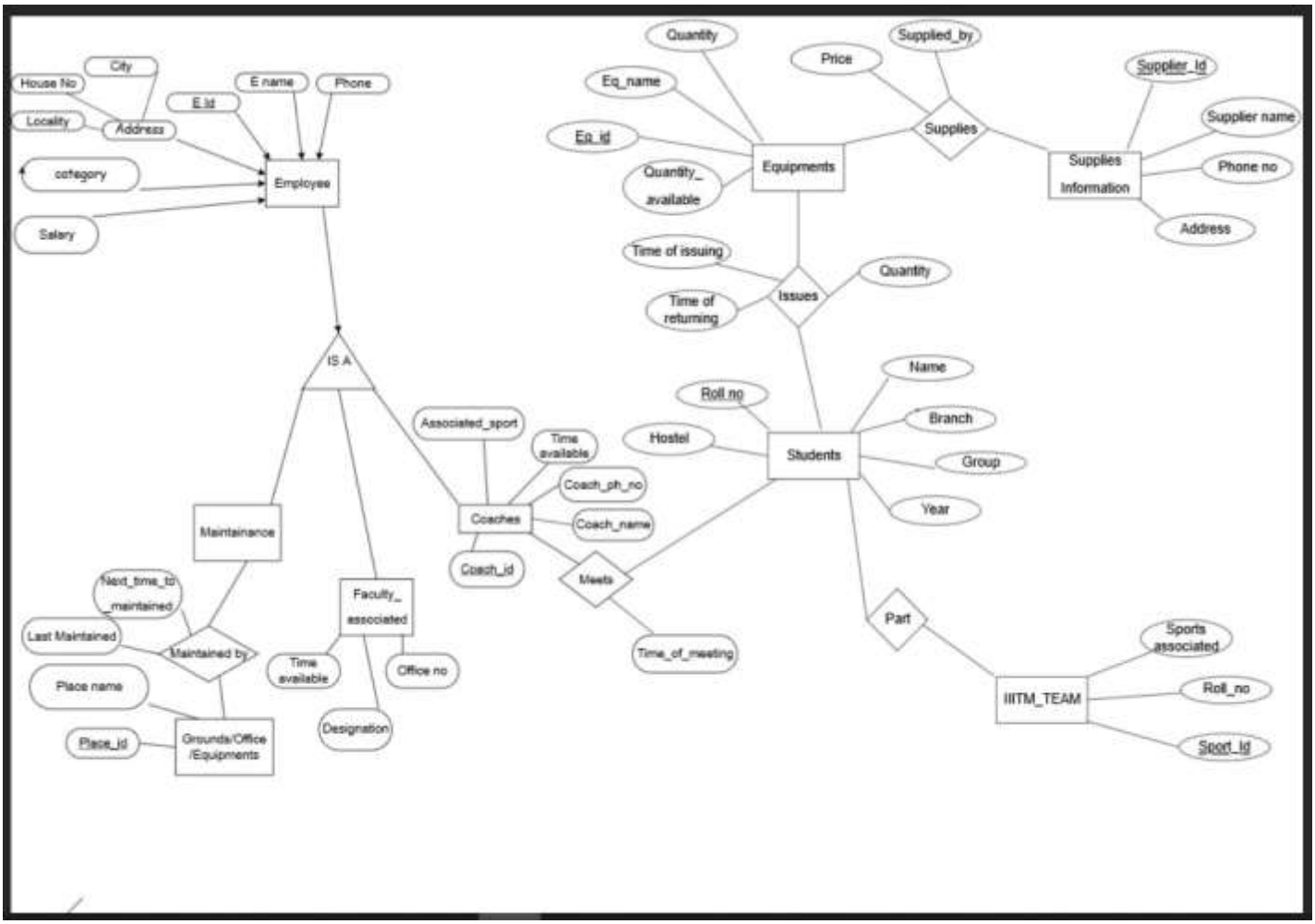
OBJECTIVE OF THE SYSTEM

The objective of the system is to provide a transparent and efficient system and reduce inconsistency of booking types of equipment, maintenance and appointing coaches by minimizing the manual intervention. It can also eliminate the problems of time-difference and minimize human errors.

ADVANTAGE OF THE SYSTEM

Go Green: You will be saving a substantial amount of paper by using an online database. Prevent the use of paper and save the planet.
Secured Data: The data is stored in a transparent and efficient way making it safe from mishandling and human errors.
User Convenience: Users can now easily issue equipment from the sports center without having the trouble of giving away their IIITM id.
Analysis: Store data for comparison in subsequent years. Customizable Reports to help you retrieve and analyze the desired statistic data.

ER DIAGRAM



Tables Associated with project:

SUPPLIER INFORMATION
Address (Varchar)
Supplier ID (Number)---PK
Supplier Name (Varchar)
Phone No. (Number)—Multi-valued attribute----Unique Constraint

Address (Varchar)

EQUIPMENTS
Eq_ID (Number)---PK
Eq_Name (Varchar)
Quantity (Number)
Quantity_available (Number)

SUPPLY
Supplier_ID (Number)---FK(References Supplier Information(Supplier_ID))
Eq_ID (Number)---FK(References Equipments(Eq_ID))
Supplied Qty (Number)
Price (Number)
PK ---(Supplier_ID,Eq_ID)

STUDENTS
Roll_No. (Number)---PK
Name (Varchar)
Year (Number)
Branch (Varchar)
Hostel (Varchar)

EMPLOYEE
E_ID (Number)---PK
E_Name (Varchar)

Phone_No. (Number)---Unique Constraint
Salary (Number)
House_No. (Number)
Locality (Varchar)
City (Varchar)

FACULTY ASSOCIATED
E_ID (Number)---FK(References Employee(E_ID))
Time Available (Varchar)
Designation (Varchar)
Office No. (Number)

COACH
E_ID (Number)---FK(References Employee(E_ID))
Coach_ID (Number)
Coach_Name (Varchar)
Time Available (Varchar)
Associated_Sports (Varchar)
Coach_Phone_No. (Number)

MEET
Coach_ID (Number)---FK(References Coach(Coach_ID))
Roll No. (Number)
Time_of_meeting (Varchar)

ISSUE
Eq_ID (Number)
Qty Issued (Number)
Time Of Returning (Varchar)
Time Of Issuing (Varchar)

IIITM TEAM
Sport_ID (Number)
Sport_Associated (Number)

PART
Sport_ID (Number)
Roll No. (Number)

MAINTENANCE
E_ID (Number)
Name (Varchar)

GROUNDS
Place_ID (Number)
Place_Name (Varchar)

MAINTAINED BY
E_ID (Number)

Last_Maintained (Varchar)
Next_Time_To_Maintained (Varchar)

NORMALIZATION:

1. Table: Supplier Information

Supplier_ID	*Supplier_name*	*Phone_no.*	*Address*
204192	SS and Sons	94338461234,75433 213567	Plot No. 23, GTB Nagar, Ropar
204193	DK Stores	9012345692	Adarsh Nagar, Patiala
204194	Matchless Exports	8922397559	Kirti Nagar, New Delhi
204195	A Sports	7684395578, 7328129485	MI Road, Jaipur
204196	Liberty Sports	8967483929	MI Road, Jaipur
204197	Indokan Sports	76584930345	Civil Lines, Ludhiana

1NF - A relation is in first normal form if and only if the domain of each attribute contains only atomic (indivisible) values, and the value of each attribute contains only a single value from that domain. In our table Phone_no. is multivalued attributes. So, we will decompose into two tables as:

Table: Supplier_Info

Supplier_ID	*Supplier_Name*	*Address*
204192	SS and Sons	Plot No. 23, GTB Nagar, Ropar
204193	DK Stores	Adarsh Nagar, Patiala
204194	Matchless Exports	Kirti Nagar, New Delhi

204195	SS and Sons	MI Road, Jaipur
204196	Liberty Sports	MI Road, Jaipur
204197	Indokan Sports	Civil Lines, Ludhiana

Table: Supplier_Mobile with foreign key Supplier_ID and Primary key (Supplier_ID, Phone_No).

Supplier_ID	*Phone_No*
204192	9433846123
204192	7543321356
204193	9012345692
204194	8922397559
204195	7684395578
204195	7328129485
204196	8967483929
204197	7658493034

2NF - To qualify for second normal form a relation must:

(1) be in first normal form (1NF).
(2) not have any non-prime attribute that is dependent on any proper subset of any candidate key of the relation.
A non-prime attribute of a relation is an attribute that is not a part of any candidate key of the relation. Both the tables are in 2NF.

3NF -Third normal form (3NF) is a normal form that is used in normalizing a database design to reduce the duplication of data and ensure referential integrity by ensuring that:
(1) the entity is in second normal form
(2) no non-prime (non-key) attribute is transitively dependent on any key i.e. no non-prime attribute depends on other non-prime attributes. All the non-prime attributes must depend on the primary key only.

Both the tables are in 3NF as no non-prime attributes (Supplier_name, Address in Supplier Information) is dependent on any other non-prime attribute. BCNF - For a table to satisfy the Boyce-Codd Normal Form, it should satisfy the following two conditions:

a. It should be in the Third Normal Form.

b. And, for any dependency A → B, A should be a super key. Both tables satisfy BCNF conditions.

2. Table: Equipment

Eq_ID	*Eq_Name*	*Quantity*	*Quantity_Available*
204	Badminton Rackets	20	3
205	Tennis Balls	40	20
206	Cricket Bats	10	4
207	Football	10	4
208	VolleyBall	20	5
209	LawnTennis Rackets	5	2
210	BasketBall	6	2

1NF- No column has multiple values. So the table is in 1NF.

2NF- The table satisfies the rule for 2NF. The primary key is Eq_ID.

3NF- Non-prime attribute – Eq_Name determines other non-prime attributes (Quantity, Quantity_Available).

Tables after decomposition:

Table: Equipments *with Primary key Eq_ID.*

Eq_ID	*Eq_Name*
204	Badminton Rackets
205	Tennis Balls
206	Cricket Bats

207	Football
208	VolleyBall
209	Lawn Tennis Rackets
210	BasketBall

Table: **Equipments_qty**
Foreign key Eq_ID referring to Equipments_Id_Name (Eq_ID):

Eq_ID	*Quantity*	*Quantity_Available*
204	20	3
205	40	20
206	10	4
207	10	4
208	20	5
209	5	2
210	6	2

BCNF- Both the tables satisfy BCNF conditions.

3. Table: Supply

Supplier_ID	Eq_ID	Supplied_Qty	Price
204192	204	40	130

204192	205	56	20
204193	206	10	2010
204194	207	30	150
204195	208	20	150
204195	209	5	1000
204196	210	5	200
204197	210	10	300

Primary key- (Supplier_ID, Eq_ID)

1NF- No column has multiple values. So the table is in 1NF.

2NF- The table satisfies the rule for 2NF.

No attribute is dependent on the proper subset of the primary key.

3NF- No non-prime attribute (Eq_ID, Supplied_Qty, Price) determines any other nonprime attribute.

BCNF- Table satisfies BCNF conditions.

4. Table: Students

Roll_No	*Name*	*Year*	*Branch*	*Hostel*	*SubGroup*
101715456	Raj	2	ENC	J	ENC3
101703345	Rakshit	2	COE	C	COE19
101804234	Ram	1	ECE	B	ECE2
101602122	Rocky	3	EEE	A	ELC3
101715124	Raj	2	ENC	J	ENC3
101703324	Robin	2	COE	B	COE19
101602439	Rakshit	3	EEE	M	EEC11
101508123	Sneha	4	MEE	I	ELC5

101701123	Shruti	2	CHE	G	COE5

1NF- No column has multiple values. So the table is in 1NF
2NF- The table satisfies the rule for the 2NF.No attribute is dependent on the proper subset of the primary key.
3NF- No non-prime attribute (Eq_ID, Supplied_Qty, Price) determines any other nonprime attribute.
BCNF- Table satisfies BCNF conditions.

5. Table: Employee

E_ID	*E_Name*	*Phone_No*	*Salary*	*House_No*	*Locality*	*City*
1001	Girish	9874561235	20000	12	Adarsh Nagar	Patiala
2002	Gaurish	8945627458	30000	23	Adarsh Nagar	Patiala
3002	Rhythm	7869541236	20000	12	Guru Nanak Nagar	Patiala
4003	Ravi	8579462846	5000	14	Adarsh Nagar	Patiala
1002	Rythm	9704956875	27000	78	Model Town	Patiala
1003	Kiran	7890467382	560000	45	Urban Estate	Patiala

1NF- No column has multiple values. So the table is in 1NF.
2NF- The table satisfies the rule for 2NF. No attribute is dependent on the proper subset of the primary key.
3NF- No non-prime attribute should determine any other non-prime attribute. But here Phone_No which is non-prime attribute determines E_name, Salary, House_No, Locality, city. So we have to decompose into two tables:

Table: Employee_Info

E_ID	*E_Name*	*Salary*	*House_No*	*Locality*	*City*	*Category*
1001	Girish	20000	12	Adarsh Nagar	Patiala	Faculty
2002	Gaurish	30000	23	Adarsh Nagar	Patiala	Coach
3002	Rhythm	20000	12	Guru Nanak Nagar	Patiala	Maintainance
4003	Ravi	5000	14	Adarsh Nagar	Patiala	Maintainance
1002	Rythm	27000	78	Model Town	Patiala	Faculty
1003	Kiran	560000	45	Urban Estate	Patiala	Coach

Table: Employee_Phone with E_ID Foreign Key referring to Employee_Info(E_ID) and Primary key.

E_ID	*Phone_No*
1001	9874561235
2002	8945627458
3002	7869541236
4003	8579462846
1002	9704956875
1003	7890467382

BCNF- Both the tables satisfy BCNF conditions.

6. Table: Faculty_Associated

E_id	*Time Available*	*Designation*	*Office_no*
1001	4:00 to 7:00	Head	A122
2002	4:00 to 6:00	secretory	B002
3002	5:30 to 7:30	Sports secretory	A101
4003	3:00 to 4:45	Asst. head	A006
1002	4:50 to 5:30	Asst. secretory	B116
1003	5:30 to 7:30	Faculty coordinator	C009

1NF- No column has multiple values. So the table is in 1NF.
2NF- The table satisfies the rule for 2NF. No attribute is dependent on the proper subset of the primary key.
3NF- No non-prime attribute (Time Available, Designation, Office No.) determines any other non-prime attribute. BCNF- Table satisfies BCNF conditions.

Rest all the tables are already in 1NF,2NF,3NF, AND BCNF.

Code:

Creation of tables:

Create table Supplier_Info(Supplier_ID int primary key, Supplier_Name varchar(10) NOT NULL, Address varchar(20) NOT NULL);

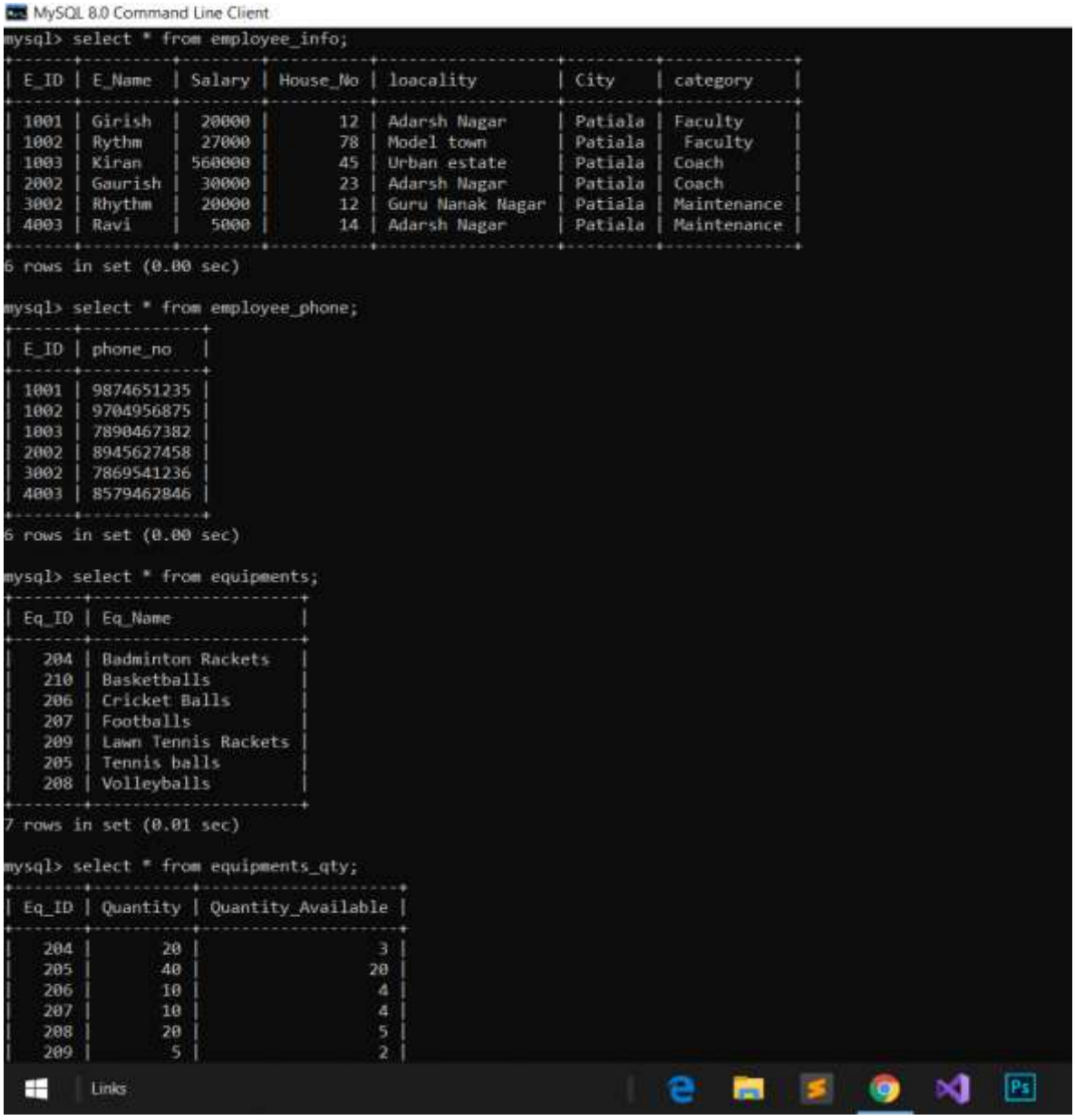
Create table Supplier_Mobile(Supplier_ID int, Phone_No int, constraint foreign key(Supplier_ID) references Supplier_Info(Supplier_ID), constraint primary key(Supplier_ID,Phone_No));

```
Create table Equipments(Eq_ID int primary key, Eq_Name varchar(20) UNIQUE);

Create table Equipments_Qty(Eq_ID VARCHAR(20) primary key, Quantity int,
Quantity_Available int,constraint Foreign key(Eq_ID) references Equipments(Eq_ID));

Create table Supply(Supplier_ID int, Eq_ID int, Supplied_qty int NOT NULL, price int NOT
NULL, constraint foreign key(Supplier_ID) references Supplier_Info(Supplier_ID), constraint
foreign key(Eq_ID) references Equipments(Eq_ID), constraint primary key(Supplier_ID,Eq_ID));

Create table students_info( Roll_No int primary key, Name varchar(10), Year int, Branch
varchar(6), Subgroup varchar(7), Hostel varchar(1));

Create table Employee_Info(E_ID int primary key, E_Name varchar(10), Salary int NOT NULL,
House_No int, loacality varchar(7), City varchar(9), category varchar(10));

Create table Employee_Phone(E_ID int, Phone_No int, constraint primary
key(E_ID,Phone_No), constraint foreign key(E_ID) references Employee_Info(E_ID));

Create table faculty_associated(E_ID int, Time_available varchar(30),
Designation varchar(10), Office_No varchar(5) NOT NULL, constraint foreign key(E_ID)
references Employee_Info(E_ID));

Create table coach(E_ID int primary key, Time_available varchar(30), Asoociated_Sports
varchar(10),constraint foreign key(E_ID) REFERENCES Employee_Info(E_ID));


Create table issues_1(Roll_No int, Eq_Name varchar(20),Qty_issued int, ToI timestamp,
constraint foreign key(Eq_Name) REFERENCES Equipments(Eq_Name), constraint foreign
key(Roll_No) REFERENCES students_info(Roll_No), constraint primary
key(Eq_Name,Roll_No));


Create table meet(E_ID int, Roll_No int, ToM VARCHAR(30), constraint foreign key(Roll_No)
REFERENCES students_info(Roll_No), constraint foreign key(E_ID) REFERENCES
Equipments(Eq_ID), constraint primary key(E_ID,Roll_No));


Create table iiitm_team(Sport_ID int, Sport_Ass varchar(9), Roll_No int,constraint foreign
key(Roll_No) REFERENCES students_info(Roll_No), constraint primary key(Roll_No,
Sport_ID));
```

Create table grounds(place_id int primary key, place_name varchar(10));

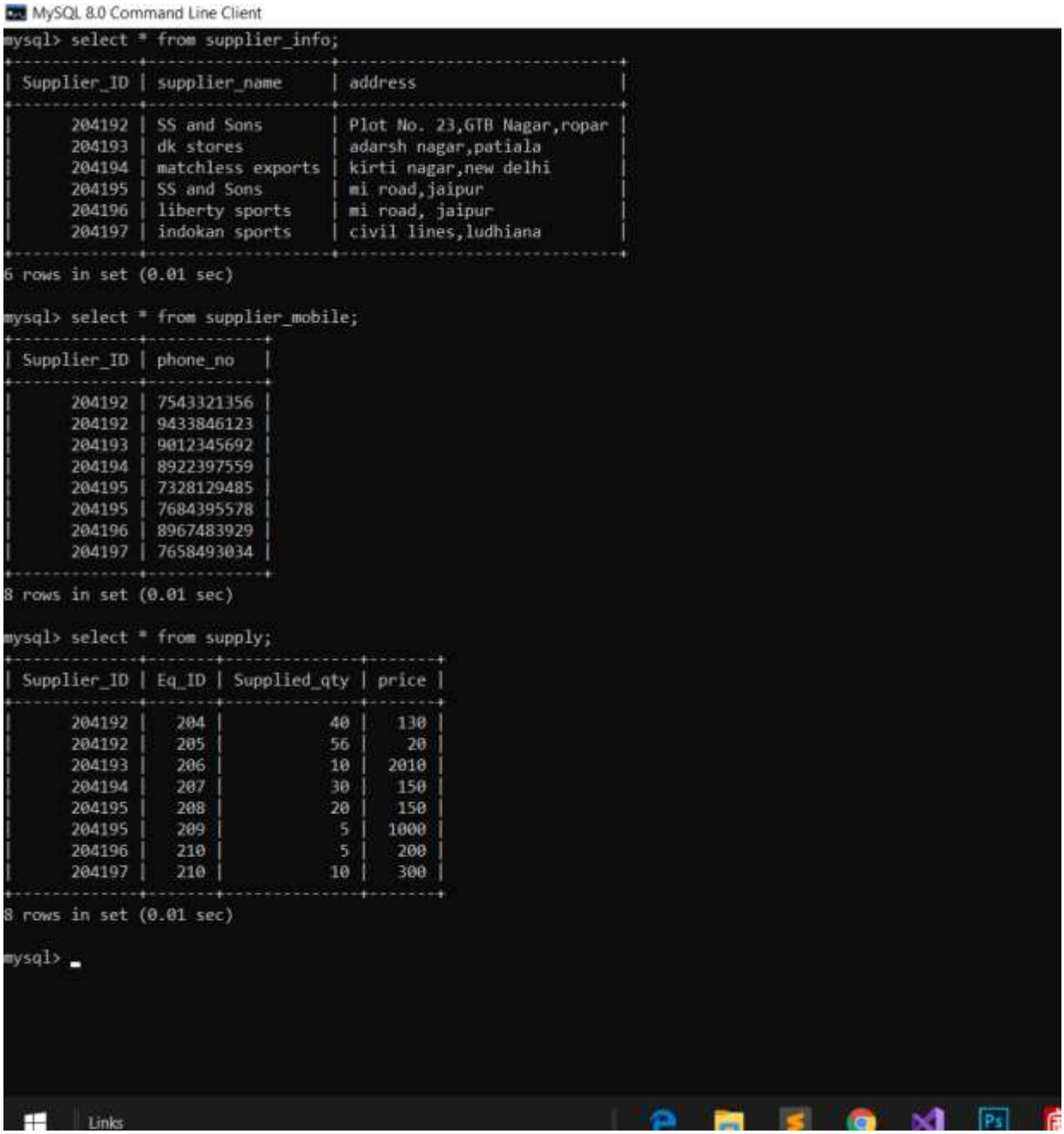
Create table maintained_by(place_id int, last_man date, next_man date, constraint foreign key(place_id) references grounds(place_id));

TABLES IN MYSQL :


MySQL 8.0 Command Line Client
mysql> select * from employee_info;
+------+---------+--------+----------+------------------+---------+-------------+
| E_ID | E_Name | Salary | House_No | loacality | City | category |
+------+---------+--------+----------+------------------+---------+-------------+
1001	Girish	20000	12	Adarsh Nagar	Patiala	Faculty
1002	Rythm	27000	78	Model town	Patiala	Faculty
1003	Kiran	560000	45	Urban estate	Patiala	Coach
2002	Gaurish	30000	23	Adarsh Nagar	Patiala	Coach
3002	Rhythm	20000	12	Guru Nanak Nagar	Patiala	Maintenance
4003	Ravi	5000	14	Adarsh Nagar	Patiala	Maintenance
+------+---------+--------+----------+------------------+---------+-------------+
6 rows in set (0.00 sec)
mysql> select * from employee_phone;
+------+------------+
| E_ID | phone_no |
+------+------------+
1001	9874651235
1002	9704956875
1003	7890467382
2002	8945627458
3002	7869541236
4003	8579462846
+------+------------+
6 rows in set (0.00 sec)
mysql> select * from equipments;
+-------+---------------------+
| Eq_ID | Eq_Name |
+-------+---------------------+
204	Badminton Rackets
210	Basketballs
206	Cricket Balls
207	Footballs
209	Lawn Tennis Rackets
205	Tennis balls
208	Volleyballs
+-------+---------------------+
7 rows in set (0.01 sec)
mysql> select * from equipments_qty;
+-------+----------+--------------------+
| Eq_ID | Quantity | Quantity_Available |
+-------+----------+--------------------+
204	20	3
205	40	20
206	10	4
207	10	4
208	20	5
209	5	2
Links

MySQL 8.0 Command Line Client

```
mysql> select * from equipments_qty;
+-------+----------+--------------------+
| Eq_ID | Quantity | Quantity_Available |
+-------+----------+--------------------+
|   204 |       20 |                  3 |
|   205 |       40 |                 20 |
|   206 |       10 |                  4 |
|   207 |       10 |                  4 |
|   208 |       20 |                  5 |
|   209 |        5 |                  2 |
|   210 |        6 |                  2 |
+-------+----------+--------------------+
7 rows in set (0.01 sec)

mysql> select * from faculty_associated;
+------+----------------+--------------------+-----------+
| E_ID | Time_available | designation        | Office_No |
+------+----------------+--------------------+-----------+
| 1001 | 4:00 to 7:00   | Head               | A122      |
| 2002 | 4:00 to 6:00   | Secretory          | B002      |
| 3002 | 5:30 to 7:30   | Sports Secretary   | A101      |
| 4003 | 3:00 to 4:45   | Asst head          | A006      |
| 1002 | 4:50 to 5:30   | Asst. Secretory    | B116      |
| 1003 | 5:30 to 7:30   | Faculty cordinator | C009      |
+------+----------------+--------------------+-----------+
6 rows in set (0.00 sec)

mysql> select * from students_info;
+-----------+---------+------+--------+----------+--------+
| Roll_No   | Name    | Year | Branch | Subgroup | hostel |
+-----------+---------+------+--------+----------+--------+
| 101602122 | Rocky   |    3 | EEE    | A        | ELC3   |
| 101602439 | Rakshit |    3 | EEE    | M        | EEC11  |
| 101703324 | Robin   |    2 | COE    | B        | COE19  |
| 101703345 | Rakshit |    2 | COE    | C        | COE19  |
| 101715124 | Raj     |    2 | ENC    | J        | ENC3   |
| 101715456 | Raj     |    2 | ENC    | J        | ENC3   |
| 101804234 | Ram     |    1 | ECE    | B        | ECE2   |
+-----------+---------+------+--------+----------+--------+
7 rows in set (0.01 sec)

mysql> select * from supplier_info;
+-------------+-----------------+----------------------------+
| Supplier_ID | supplier_name   | address                    |
+-------------+-----------------+----------------------------+
|      204192 | SS and Sons     | Plot No. 23,GTB Nagar,ropar |
|      204193 | dk stores       | adarsh nagar,patiala       |
|      204194 | matchless exports | kirti nagar,new delhi    |
|      204195 | SS and Sons     | mi road,jaipur             |
```



QUERIES IN MYSQL:

Query 1:

Select the employee name and his ID whose salary is greater than 15000INR and is appointed as a coach in the college.

Select MySQL 8.0 Command Line Client

```
mysql> select E_name, E_ID from Employee_info where salary>15000 and category='coach';
+---------+------+
| E_name  | E_ID |
+---------+------+
| Kiran   | 1003 |
| Gaurish | 2002 |
+---------+------+
2 rows in set (0.00 sec)
```

Query 2 :

Find the name, locality and time available of the person who is the secretory of the institute.

Select MySQL 8.0 Command Line Client

```
mysql> select E_name, loacality, time_available from Faculty_associated,Employee_info where designation ='secretory';
+---------+-----------------+----------------+
| E_name  | loacality       | time_available |
+---------+-----------------+----------------+
| Girish  | Adarsh Nagar    | 4:00 to 6:00   |
| Rythm   | Model town      | 4:00 to 6:00   |
| Kiran   | Urban estate    | 4:00 to 6:00   |
| Gaurish | Adarsh Nagar    | 4:00 to 6:00   |
| Rhythm  | Guru Nanak Nagar | 4:00 to 6:00   |
| Ravi    | Adarsh Nagar    | 4:00 to 6:00   |
+---------+-----------------+----------------+
6 rows in set (0.00 sec)
```

Query 3 :

Find the quantity required for basketballs and footballs.

Select MySQL 8.0 Command Line Client

```
mysql> select Eq_ID, quantity from equipments_qty where Eq_ID  in (select Eq_ID from equipments where Eq_name= 'basketballs' or Eq_name = 'footballs');
+-------+----------+
| Eq_ID | quantity |
+-------+----------+
|   210 |        6 |
|   207 |       10 |
+-------+----------+
2 rows in set (0.00 sec)
```

Query 4 :

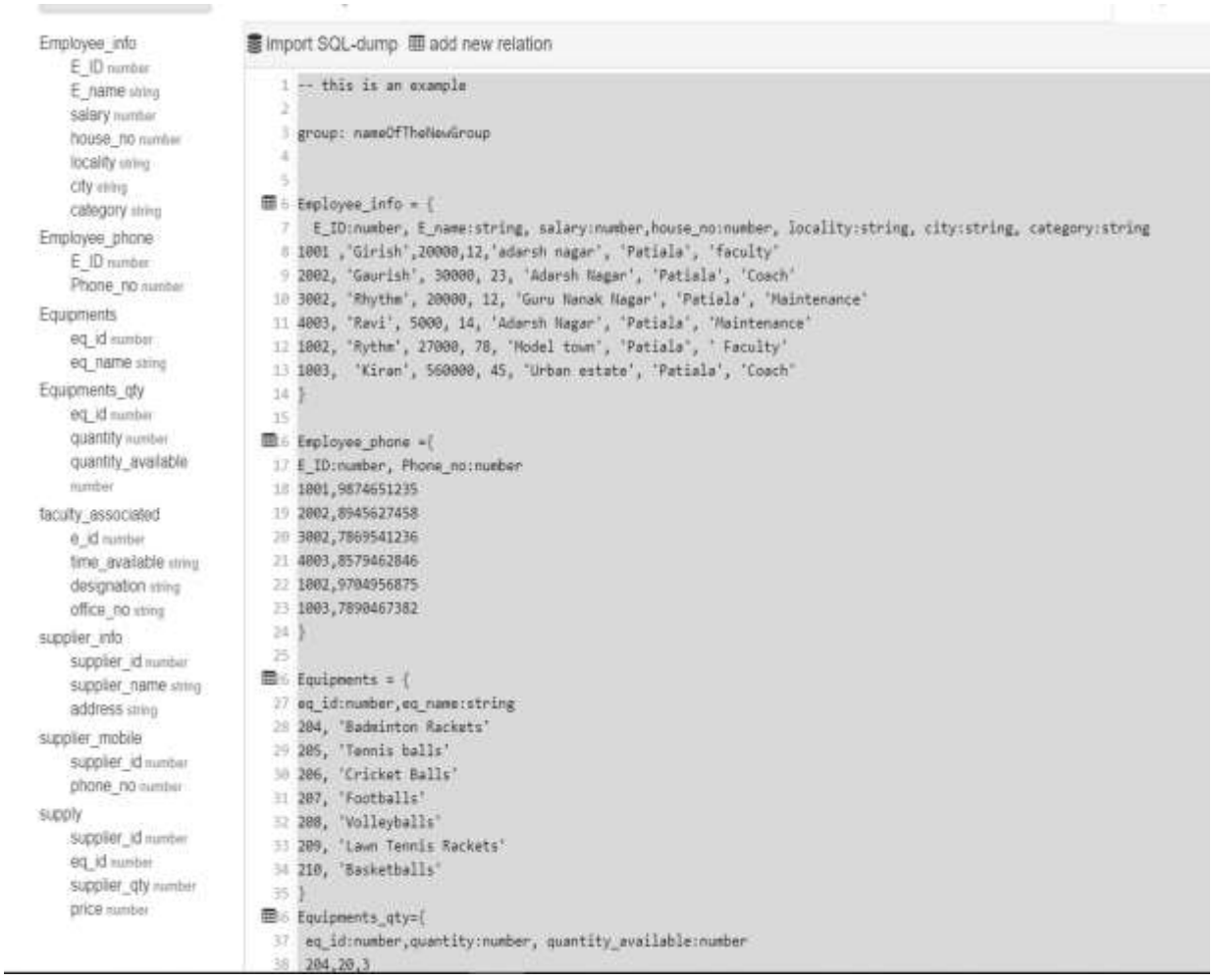
Find suppliers name, his phone number and the quantity he supplied who’s price is greater than 150 INR.

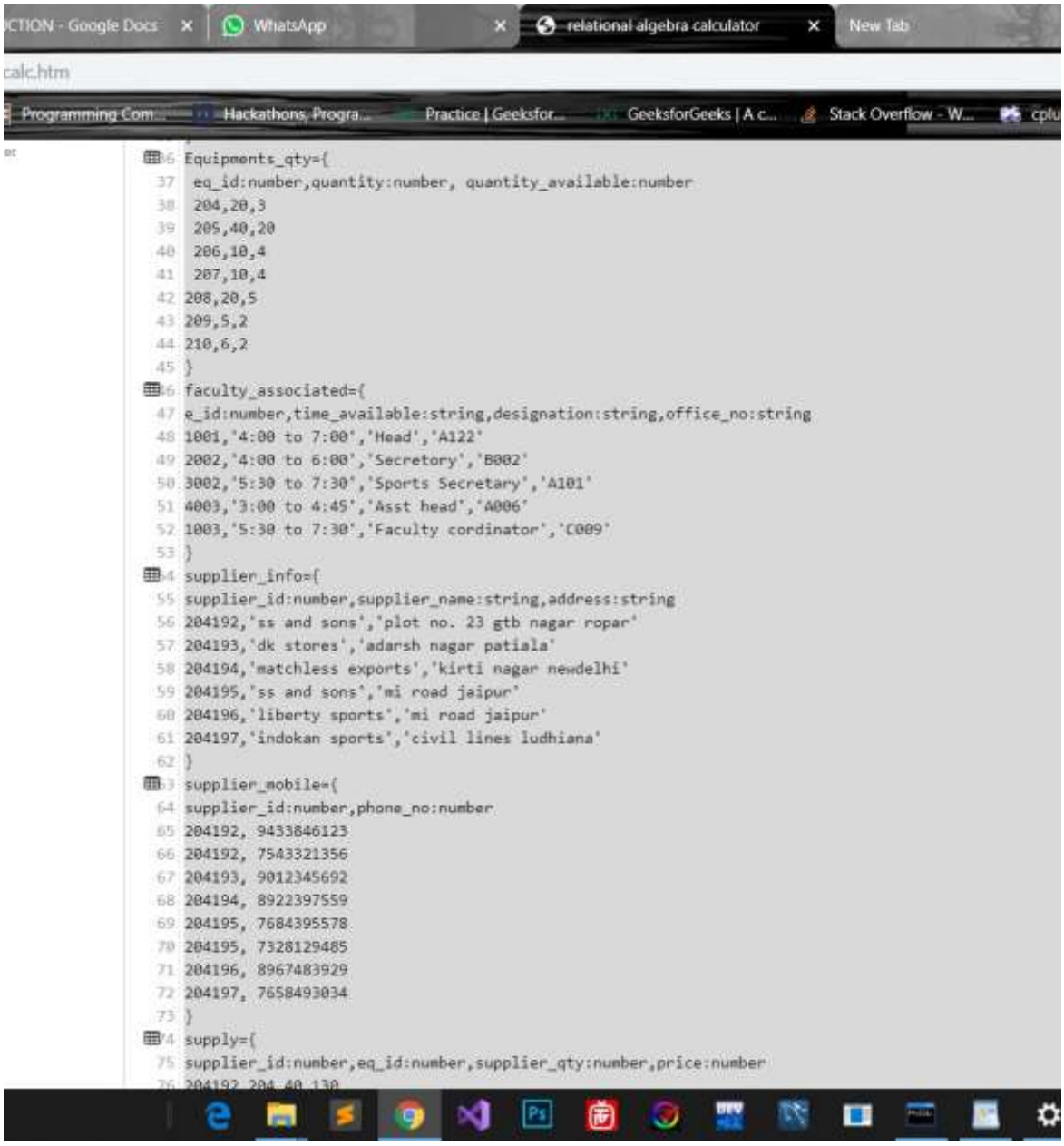
Query 5 :

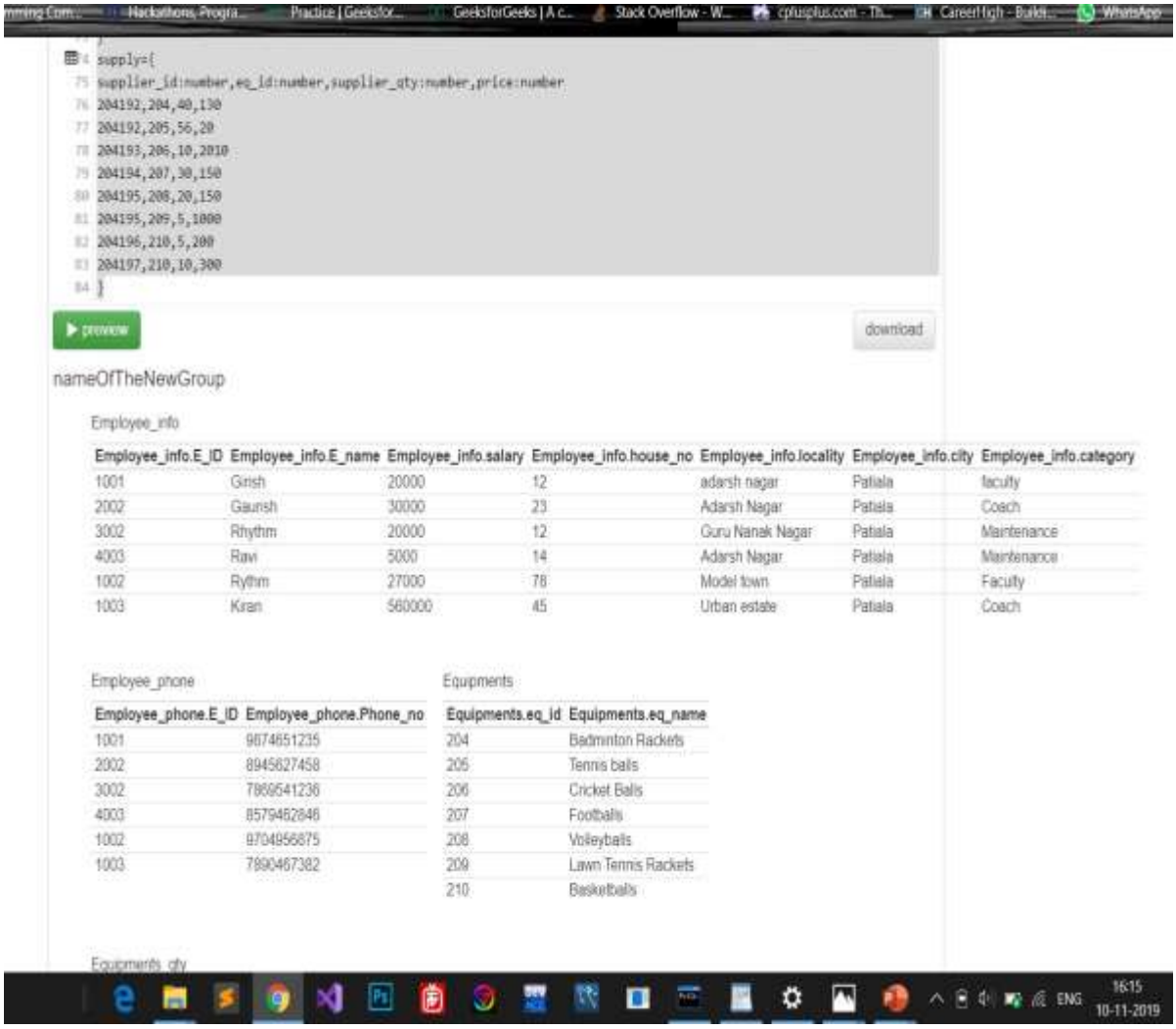
Find the Quantity available and supplied for cricketballs.

RELATIONAL ALGEBRA (RELAX)

Code for constructing the table:




CTION - Google Docs
WhatsApp
relational algebra calculator
New Tab
calc.htm
Programming Com...
Hackathons, Progra...
Practice | Geeksfor...
GeeksforGeeks | A c...
Stack Overflow - W...
Equipments_qty={
eq_id:number,quantity:number, quantity_available:number
204,20,3
205,40,20
206,10,4
207,10,4
208,20,5
209,5,2
210,6,2
}
faculty_associated={
e_id:number,time_available:string,designation:string,office_no:string
1001,'4:00 to 7:00','Head','A122'
2002,'4:00 to 6:00','Secretory','B002'
3002,'5:30 to 7:30','Sports Secretary','A101'
4003,'3:00 to 4:45','Asst head','A006'
1003,'5:30 to 7:30','Faculty cordinator','C009'
}
supplier_info={
supplier_id:number,supplier_name:string,address:string
204192,'ss and sons','plot no. 23 gtb nagar ropar'
204193,'dk stores','adarsh nagar patiala'
204194,'matchless exports','kirti nagar newdelhi'
204195,'ss and sons','mi road jaipur'
204196,'liberty sports','mi road jaipur'
204197,'indokan sports','civil lines ludhiana'
}
supplier_mobile={
supplier_id:number,phone_no:number
204192, 9433846123
204192, 7543321356
204193, 9012345692
204194, 8922397559
204195, 7684395578
204195, 7328129485
204196, 8967483929
204197, 7658493034
}
supply={
supplier_id:number,eq_id:number,supplier_qty:number,price:number
204192,204,40,130



```
supply={
supplier_id:number,eq_id:number,supplier_qty:number,price:number
204192,204,40,130
204192,205,56,20
204193,206,10,2010
204194,207,30,150
204195,208,20,150
204195,209,5,1000
204196,210,5,200
204197,210,10,300
}
```

preview download

nameOfTheNewGroup

Employee_info

Employee_info.E_ID	Employee_info.E_name	Employee_info.salary	Employee_info.house_no	Employee_info.locality	Employee_info.city	Employee_info.category
1001	Girish	20000	12	adarsh nagar	Patiala	faculty
2002	Gaurish	30000	23	Adarsh Nagar	Patiala	Coach
3002	Rhythm	20000	12	Guru Nanak Nagar	Patiala	Maintenance
4003	Ravi	5000	14	Adarsh Nagar	Patiala	Maintenance
1002	Rythm	27000	78	Model town	Patiala	Faculty
1003	Kiran	560000	45	Urban estate	Patiala	Coach

Employee_phone

Employee_phone.E_ID	Employee_phone.Phone_no
1001	9674651235
2002	8945627458
3002	7869541236
4003	8579462846
1002	9704856875
1003	7890467382

Equipments

Equipments.eq_id	Equipments.eq_name
204	Badminton Rackets
205	Tennis balls
206	Cricket Balls
207	Footballs
208	Volleyballs
209	Lawn Tennis Rackets
210	Basketballs

Equipments_qty

faculty_associated

faculty_associated.e_id	faculty_associated.time_available	faculty_associated.designation	faculty_associated.office_no
1001	4:00 to 7:00	Head	A122
2002	4:00 to 6:00	Secretory	B002
3002	5:30 to 7:30	Sports Secretary	A101
4003	3:00 to 4:45	Asst head	A006
1003	5:30 to 7:30	Faculty cordinator	C009

supplier_info

supplier_info.supplier_id	supplier_info.supplier_name	supplier_info.address
204192	ss and sons	plot no. 23 gtb nagar ropar
204193	dk stores	adarsh nagar patiala
204194	matchless exports	kirti nagar newdelhi
204195	ss and sons	mi road jaipur
204196	liberty sports	mi road jaipur
204197	indokan sports	civil lines ludhiana

supplier_mobile

supplier_mobile.supplier_id	supplier_mobile.phone_no
204192	9433846123
204192	7543321356
204193	9012345692
204194	8922397559
204195	7684395578
204195	7328129485
204196	8967483929
204197	7658493034

supply

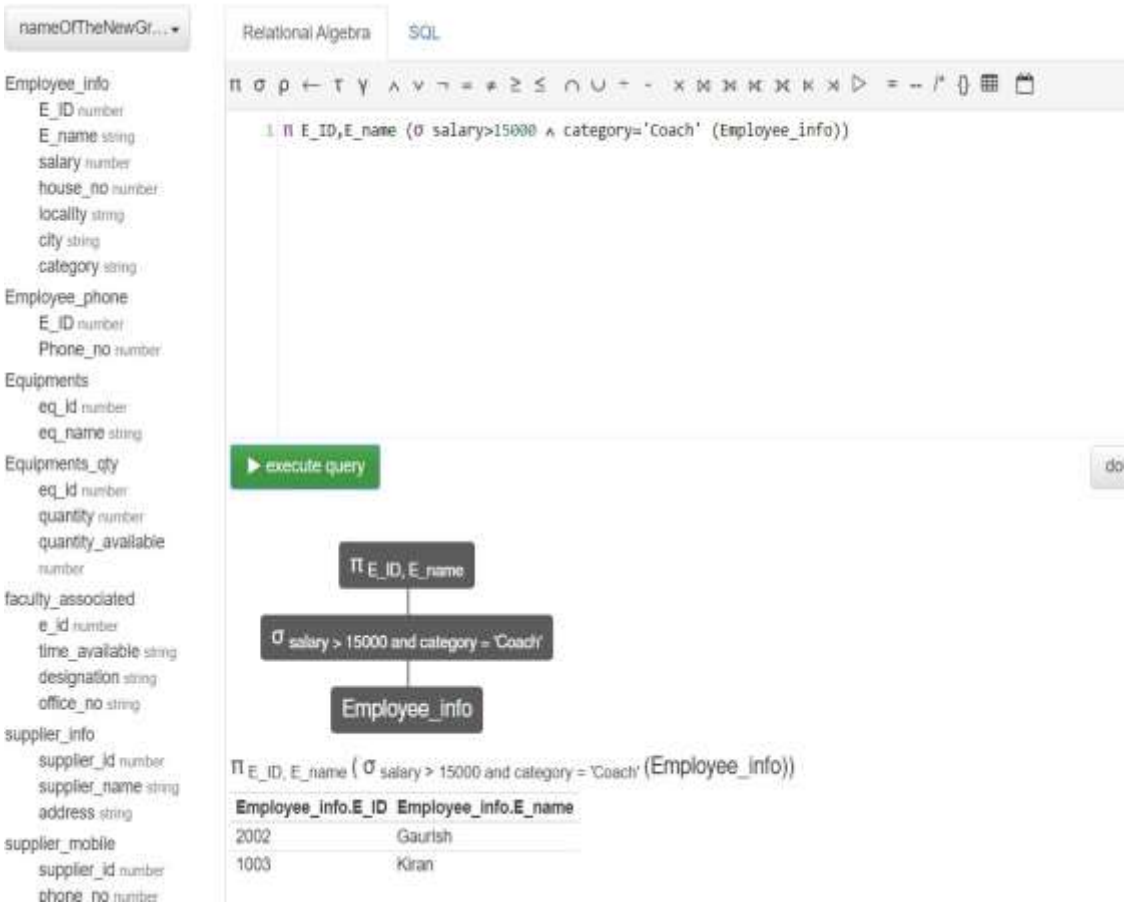
supply.supplier_id	supply.eq_id	supply.supplier_qty	supply.price
204192	204	40	130
204192	205	56	20
204193	206	10	2010
204194	207	30	150
204195	208	20	150
204195	209	5	1000
204196	210	5	200
204197	210	10	300

use Group in editor

Queries in Relax:

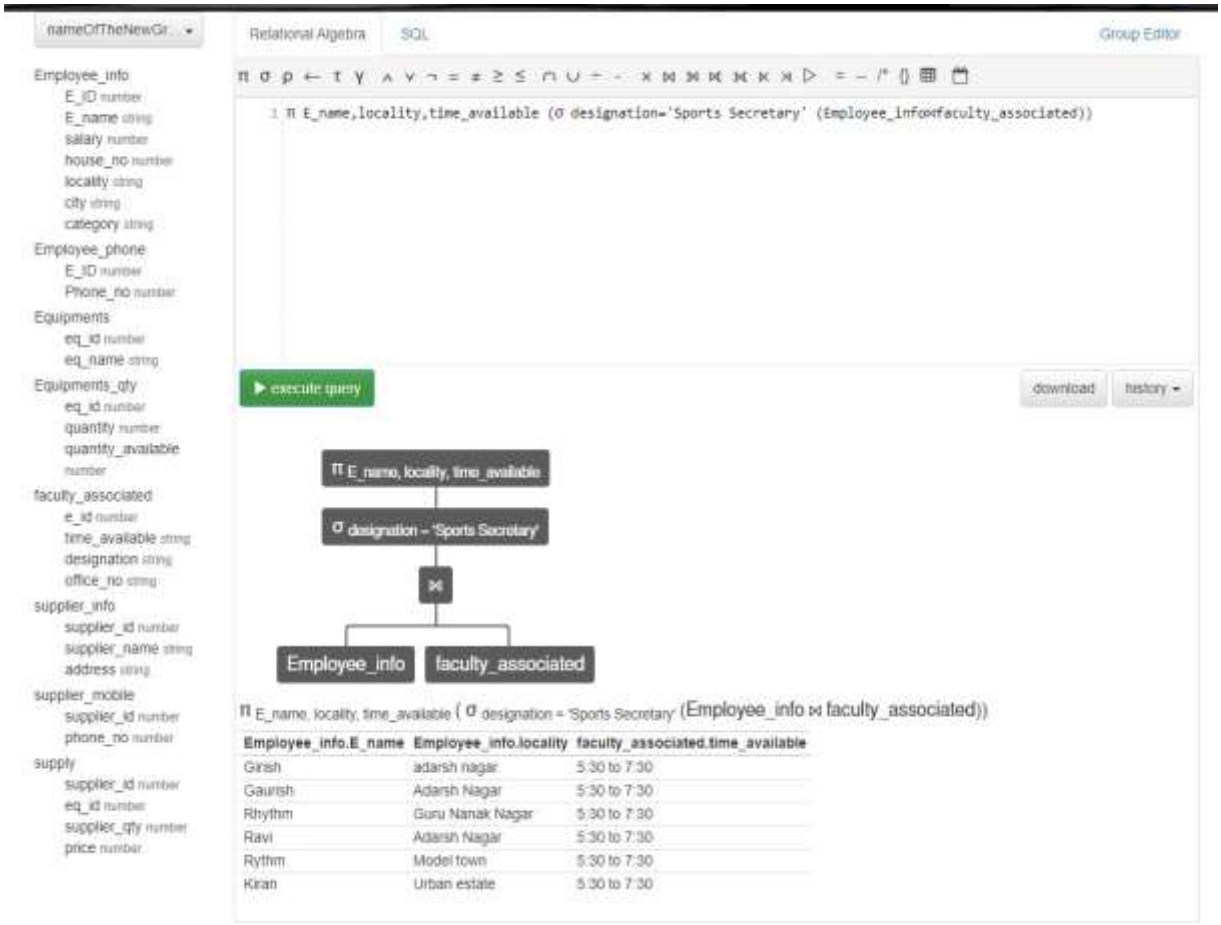
Query 1:

Select the employee name and his ID whose salary is greater than 15000INR and is appointed as a coach in the college.



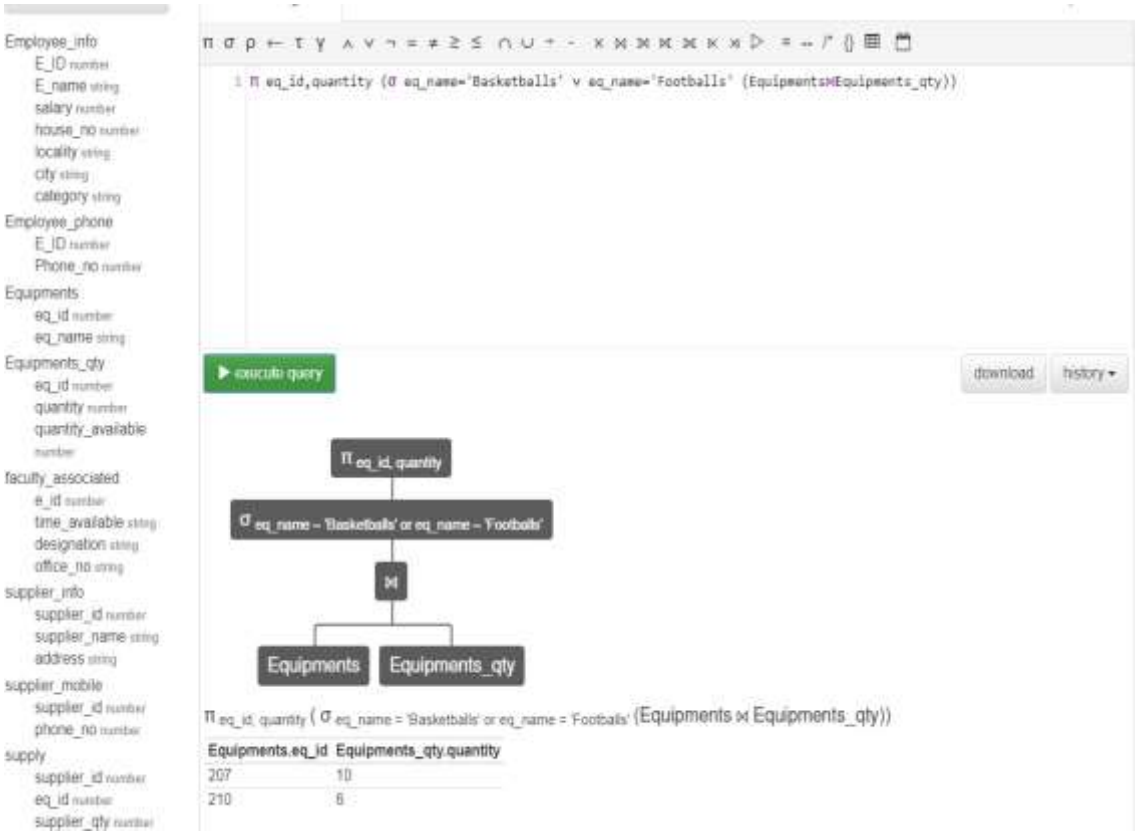
Query 2 :

Find the name, locality and time available of the person who is the sports secretary of the institute.



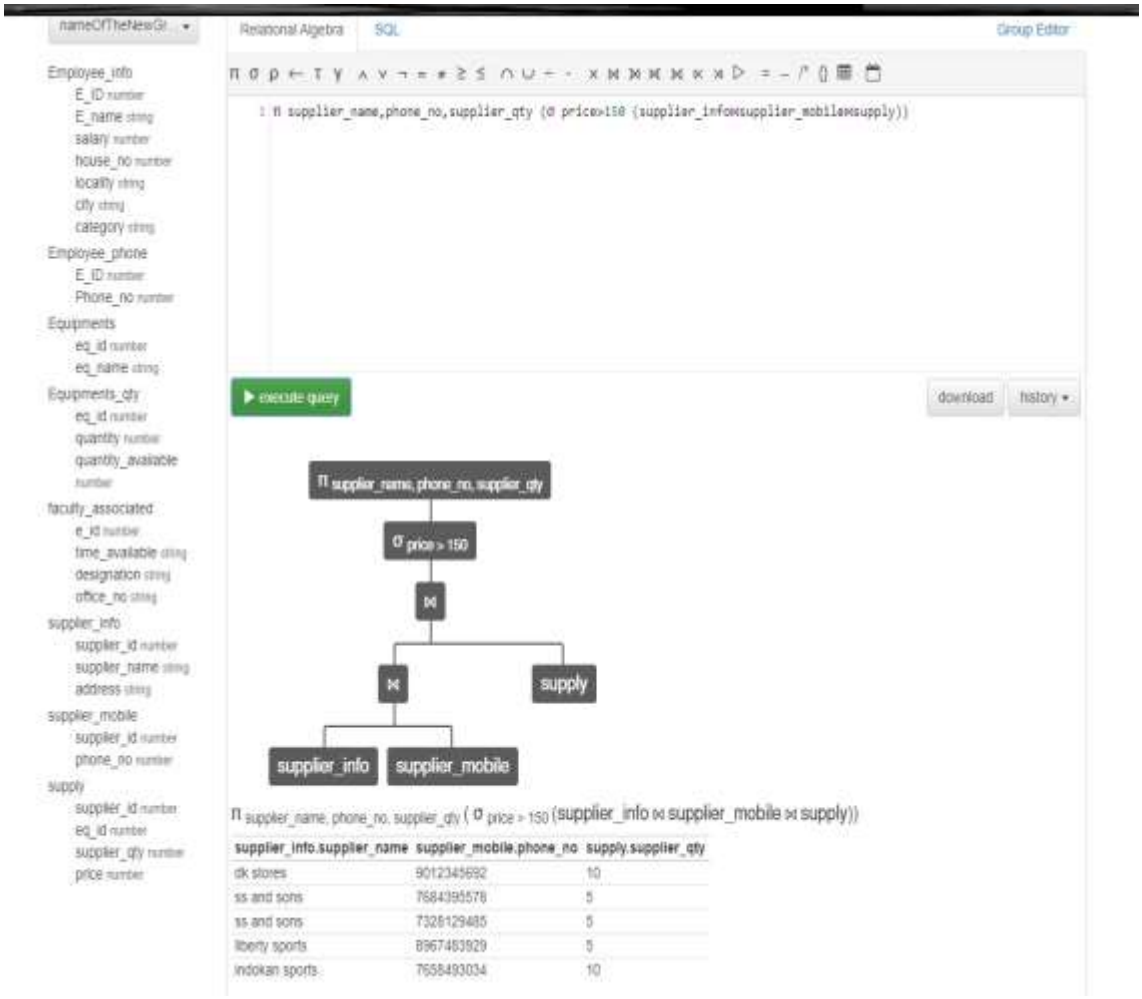
Query 3 :

Find the quantity required for basketballs and footballs.



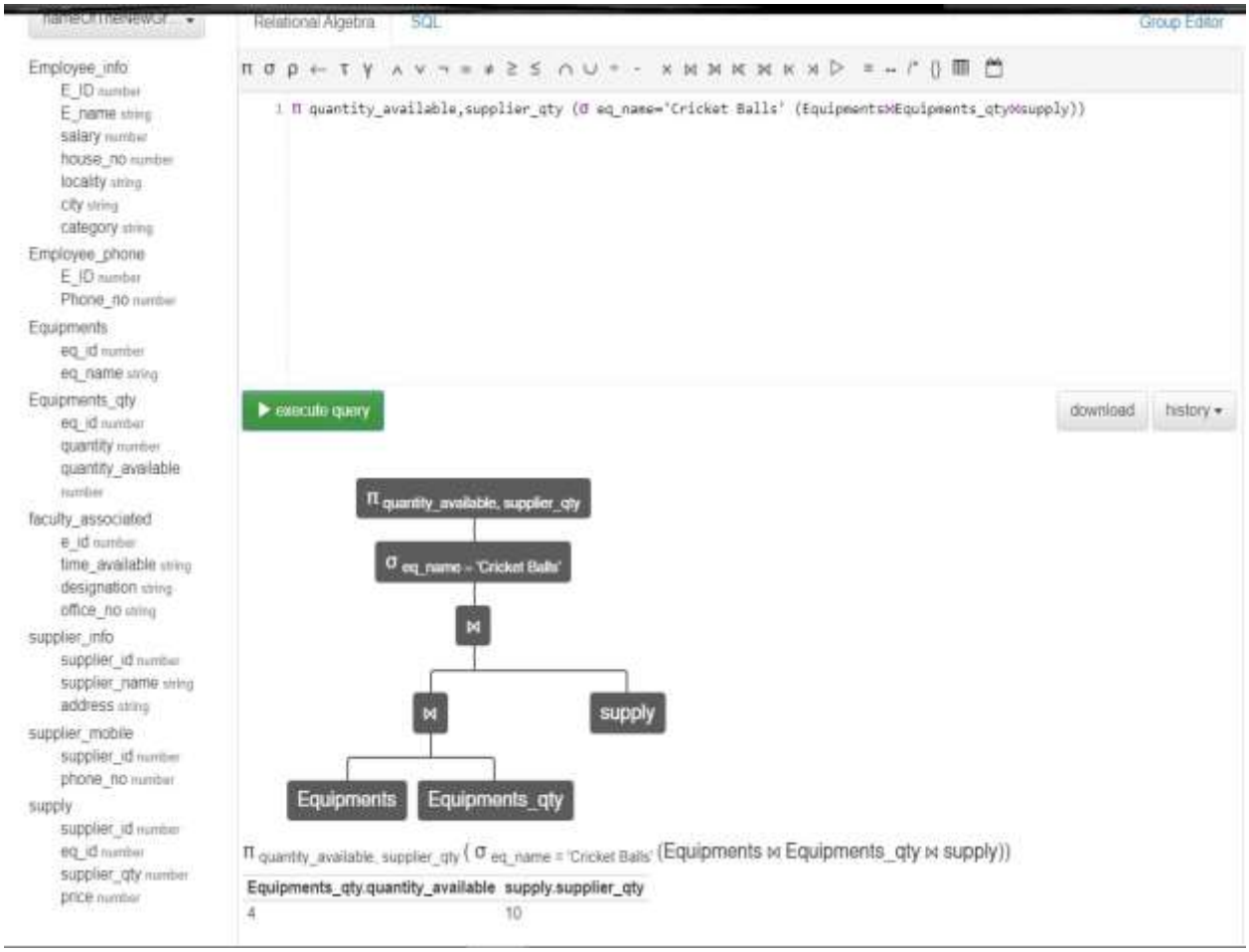
Query 4 :

Find suppliers name, his phone number and the quantity he supplied who’s price is greater than 150 INR.



Query 5 :

Find the Quantity available and supplied for cricketballs.


Relational Algebra
SQL
Group Editor
Employee_info
E_ID number
E_name string
salary number
house_no number
locality string
city string
category string
Employee_phone
E_ID number
Phone_no number
Equipments
eq_id number
eq_name string
Equipments_qty
eq_id number
quantity number
quantity_available number
faculty_associated
e_id number
time_available string
designation string
office_no string
supplier_info
supplier_id number
supplier_name string
address string
supplier_mobile
supplier_id number
phone_no number
supply
supplier_id number
eq_id number
supplier_qty number
price number
1 π quantity_available,supplier_qty (σ eq_name='Cricket Balls' (EquipmentsMEquipments_qtyMsupply))
execute query
download
history
π quantity_available, supplier_qty
σ eq_name = 'Cricket Balls'
⋈
⋈
supply
Equipments
Equipments_qty
π quantity_available, supplier_qty (σ eq_name = 'Cricket Balls' (Equipments ⋈ Equipments_qty ⋈ supply))
Equipments_qty.quantity_available
supply.supplier_qty
4
10