A project report on

College Fest Database

(Semester I of IV)

Master of Science in Information Technology(MScIT) IT615

Group ID-6(202212024)

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1. SRS(Software Requirement Specification)

1.1 Introduction

A college fest is an annual cultural event held at a college or university which is organized by the student community, involving participants from other colleges as well. Professional performing artists are also typically invited, and a number of competitions are held for students. Fests are usually funded through sponsors, although some colleges have begun exploring the idea of crowdfunding.

Preparations for a college fest starts many weeks before the actual event, and is done fully by the students of the university or college. Extracurricular activities involved in such fests help entertain the students aside from the studies. It also helps the student by developing their management skills, and marketing and interpersonal skills from activities such as finding sponsors. Students also get a chance to show their talents and skills in front of an audience.

There are many events in a college fest. Typically, these will be divided into categories like

• Literary Events

These include events like quizzes, crossword puzzles, debate, extempore etc.

• Cultural Events

These are one of the most popular events that include competitions on cooking, art, music, dance and dramas.

• Sports and Games

Many sports tournaments are also held in a college fest. Board games and Video games are also some popular events in a college fest.

Aside from the events, there are also many food and beverage stalls.

During the college fest, reviews and feedback are also taken from the audience and the participants, to know any inconveniences caused in the fest.

There will be a lot of data about the fest including the event details, participants details, winners and prizes of the respective events, accounting of the money spent and gained in these events, and feedback from the audience and the participants. This data must be handled by a reliable and easy to use database, which can be used to access and edit data seamlessly whenever required.

The main goal of the college fest database is to

- Store all the details of the Events in the festival.
 - Details will include information like venue, participants, winners, prizes, audience details (optional), etc.
- Store all the team, participants and winner details of an event.
- Admins must be able to edit all the details seamlessly.

The College fest database includes the details about winners and prizes. College fest is an integral part of not only student's life but also of the reputation of college.

So the fest needs to be up to mark.

What makes a fest successful are the events held. You should keep in mind that fest should have at least one event for all kinds of people.

It leads directly to the Questionnaire also. We can get to know what they want.

College fest is not only limited to colleges, it invites students from other colleges so it needs to keep records for all participant's parameters.

The college fest database will have separate details about prizes and winners. It will be connected to the main entity (i.e, college fest).

To register for college fest or event students will fill in details in the registration form. Many college events occur between different teams of students. So most registration forms may ask students to fill details of other students or other team members. The form may require student ID, name, course, duration, gender. Only one student or team member can register their team into the college fest. If one of the group members fills in the details of another team member then any remaining member of the group can not register again by authentication.

About team details, one table also can be separated. When a user registers in DB that time detail is also inserted in the team table.

If one team won any event then entry in the respective table imputed simultaneously.

1.2 Requirement collection phase:

It is all about obtaining information from stakeholders. In other words, once the business analysis has communicated with stakeholders to understand their requirements, it can be described as elicitation. It can also be described as a requirement gathering.

Requirement collection words come from the Analysis part of system- What the problem is about and what system must do?

Analysis emphasizes an investigation of the problem rather than

finding a solution.

Information Gathering

Specification: modeling requirements & constraints

For requirement collection create "about the problem given" from differentiation by objects or entities and knowing about subjects or terms used in the problem domain.

If correct requirement understanding, capturing, implementation, and testing take part, it can help to mitigate the erroneous and incomplete product delivery to the customer/end-user.

So, the requirement collection phase and understanding the end user requirement is an important phase in SDLC.

Requirement analysis starts with:

- 1. Requirement gathering
- 2. **Analyzing** the collected requirements to understand the correctness and feasibility of converting these requirements into a possible product.
- 3. And finally, **documenting** the requirements collected

To make sure that all the steps mentioned above are appropriately executed, clear, concise, and correct requirements must be gathered from the user. The user should be able to define their requirements properly and the business analyst should be able to collect them in the same way the users intend it to convey them.

Many a time it is not possible that requirement gathering is done efficiently by business analysts from the user. This might be due to dependency on many people related to the expected end product, tools, environment, etc. Thus, it is always a good idea to involve all the stakeholders(Students, volunteers, organizers) who could influence or could be influenced by the end product.

In our case we assume no product exists so new products can be developed.

Understanding the requirements includes understanding the domain processes & the role of the external entities

- Functionalities/Use Cases: Textual narrative descriptions of the processes in an enterprise or system
- Students register in any fest activity, details of the same inserted in the student table with and in a common table to map relationships between those.

1.3 Input and output of requirement collection phases:

1.3.1 Background reading

Background reading gives a summary about existing systems or it can help to make a new system by analyzing the problem.

In our case we assume no product exists so new products can be developed.

1.3.2 Interviewing

Input of interviewing process is pass the agenda which have rules as below:

Basic Rules:

- 1. The overall purpose of performing the interviews should be clear.
- 2. Identify the interviewees in advance.
- 3. Interview goals should be communicated to the interviewee.
- 4. Interview questions should be prepared before the interview.
- 5. The location of the interview should be predefined.
- 6. The time limit should be described.
- 7. The interviewer should organize the information and confirm the results with the interviewees as soon as possible after the interview.

Interview Plan

Date: 29/8/2022 Time: 14:30

System: College fest

Participants: A volunteer from the management team

Purpose of Interview:

Preliminary meeting to how they organize event

And to get know problem in existing system (offline/online)

Agenda:

Details about existing system

Registration of student in activities

Prizes/award for winner participants

Details about how the accounting works

Details about team: how many participant can in one team for particular fest

Documents to be brought to the interview:

Brochure of previous year organized fest

Output gives a summary of problems and solutions.

1.3.3 Questionnaires

Input

Questionnaires or surveys made up with a variety of questions which can be open ended and close ended. Most surveys are made up with MCQs. Though open ended questions help user or answerer with their descriptive answer in 2-3 lines.

College fest questionnaire

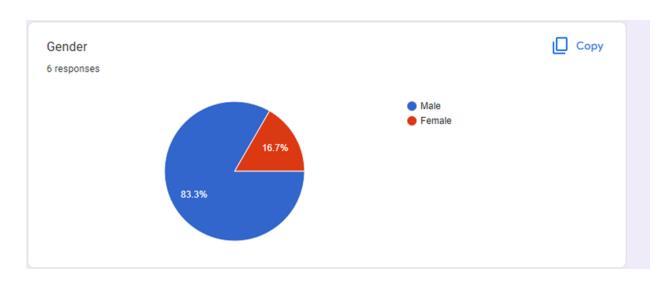
Fill form and share your view about college fest database improvement

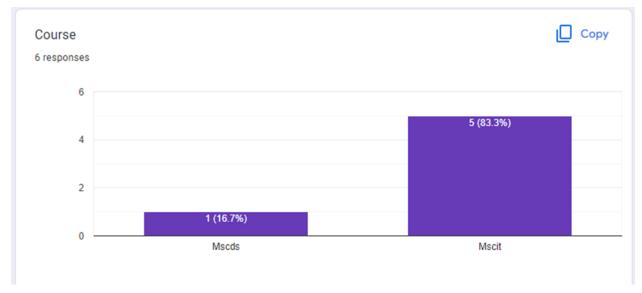
Enter your name:	
Your answer	_
Student ID:	
Your answer	
Gender	
O Male	
○ Female	
Other:	
Course	
Your answer	

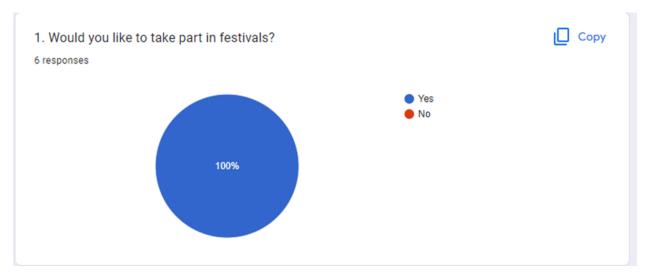
1. Would you like to take part in festivals? Yes No
2. When should major event be organized? O Winter O Monsoon O Before summer
3. Which type of festival do you like more? Game Dance Competition activities Culture Religious

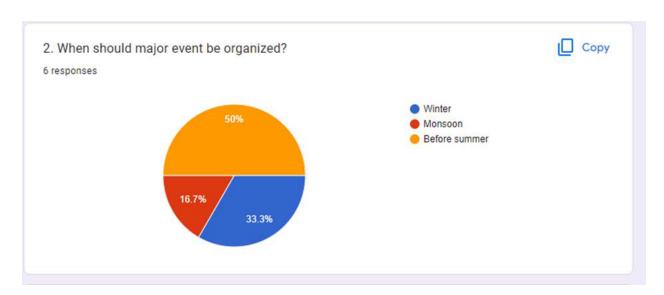
4. Which event do you like more? Indoor Outdoor
5. What was your experience about last year events?(5 for excellent)
1 2 3 4 5
0 0 0 0
What you did not like in last year festival?(From registration to prize difficulties) Your answer

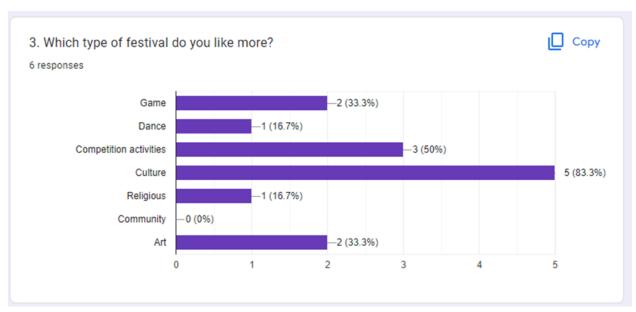
Responses:

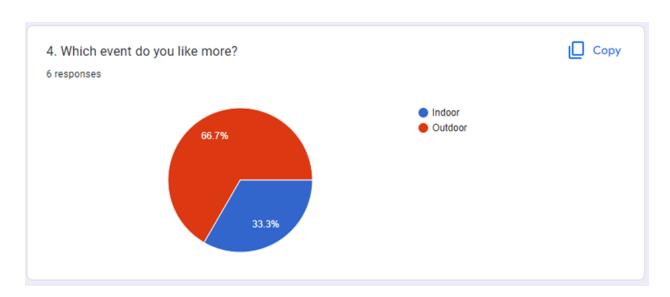


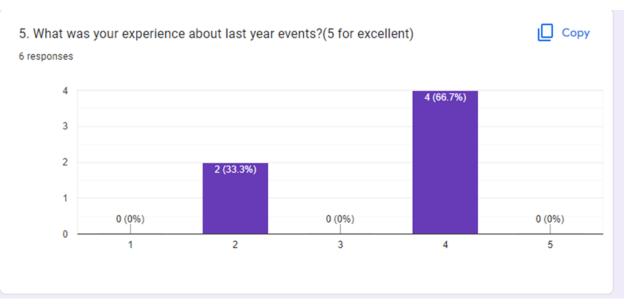












6. What you did not like in last year festival?(From registration to prize difficulties) 4 responses
Though it was online it was ambigious at time of team registration in event
prizing and winner details was not there as mentioned
registration process can be improved
team registration can be added
7. Please note any festival/event can be added to the existing festival list. 2 responses
library event
coding

Multiple choice questions have limited answers so it provides a clearer picture of output in statistical reports.

1.3.4 Observation:

Observation is a physical process so **input** of this process can be photo, video, records, notes etc.

Output by observation problem can be decoded or it can be in transcript.

As mentioned we observed that no online system exist fot college fest, only registration form is sent by respective event managers. No record storing database or **quick search technique** in existing process. As we observed there is difficulties to store different course student data because data is large and handling information about group of student and details about winner and prizes.

1.4 Requirements:

Business rules

What do you want your system to do?

This database includes the detail about college fest of any college. It maps student details to his/her participation in any fest activities. It has separate details about winners and prizes. This system also includes detail about teams formed during the fest.

What are the features you need so you can achieve your goals?

The college event management organizer can add festival/event details in database,

By including detail of student the database can make connection between student entity and fest/event in which student has enrolled. The database will have detail of student who won particular event and his/her rank.

By creating this database admin can easily search and sort data according to their need.

Admin of database can establish relation between databases or tables.

• Transaction corrections, adjustments, and cancellations

The transaction in database will add, delete, modify, canceling, and error checking.

Admin or fest management can add festival detail to existing database of festivals according to user need. Organizer can add student details. Admin can state winner and prize details. It also state relationship between entities and restrict user to form a particular numbered team

If any student or user want to take back his/her name from registration then by transaction with database he/she can delete their detail from database in easy way. Admin of database can delete event detail by collecting required information.

Student or user can modify their detail easily, also can update team member details and number of students. Admin can update fest details(date,venue,time). Updation of prize and team also part of database

These requirements examine every transaction's entry, changing, deleting, canceling, and error checking.

• Authentication functions

Only college student or user with particular designation can login into database- that authentication can apply to database. The person who want to update any fest details is authenticated can check.

They concern the information users share with the system and their authentication level.

Authorization levels

As discussed above user who have some designation only can perform their operation by their levels. Example, user of system can not create and delete and update fest details only they can do is read operation. Database will have entities of different levels from user to organizer's admin.

These functions determine various system access levels and decide who can CRUD (change, read, update, or delete) information.

Audit tracking

The database can help to track data by easy searching techniques(queries). If any transaction occurring it will have tracking by different constraints on different tables.

Audit tracking is the process of tracking critical data.

• External interfaces

These functions concern the external interface of systems other than the main system.

External interface of this system or database can be exams, weather, and student participation, college rules etc.

• Certification requirements

Your organization might require certifications to work on the system, such as security certifications.

• Searching/reporting requirements

Students get notification when any fest or event arrives so they can search for the event and get registered.

Historical data

You will have a growth of data if your database is dynamic, so you need to define storage requirements to accommodate these data.

Most of time admin have to take care of storage requirements because it also stores historical data.

Archiving

Your system's data may grow beyond your storage capacity, so the projects must have the capability to archive the data for long-term storage.

• Compliance, legal, or regulatory requirements

These are laws, regulations from the government, and even internal policies that the organizations and their systems must follow.

• Algorithms

Algorithms capture any formulas or manipulations of data elements that need to occur.

Database

The elements and formats you should use when defining what data needs storing in a system.

• Backup and recovery

You will need this function in case your system crashes and wipes out all your data.

1.4.1 Functional Requirements

• Enter Event details

Venue, Name, Prizes, teams and participants, winners, sponsors (if any), coordinators, etc.

• Enter Participant details

Name, Degree, Achievements (optional), events, wins, etc.

- Filter participants by events
- Sort events by dates
- Coordinators must be able to edit their events and participant's details.
- Find winner of all events or the specified events

1.4.2 Non-Functional Requirements

Capacity — What are your system's storage requirements, today and in the future? How will your system scale up for increasing volume demands?

Compatibility — What are the minimum hardware requirements? What operating systems and their versions must be supported?

Reliability and Availability — What is the critical failure time under normal usage? Does a user need access to this all hours of every day?

Maintainability + **Manageability**—How much time does it take to fix components, and how easily can an administrator manage the system? Under this umbrella, you could also define Recoverability and Serviceability.

Scalability – What are the highest workloads under which the system will still perform as expected?

Usability — How easy is it to use the product? What defines the experience of using the product?

1.5 Fact Finding Chart

Objective	Technique	Subject(s)	Time
To determine the basic opinion of the audience for college fest	Questionnaire	Audience visiting the college fest	5 minutes each
To know how participation in the events is handled	Interview	A volunteer from the management team	0.5 hours
To determine how the existing system works	Interview	A volunteer from the management team	1 hour
To know how the prizes are distributed among the winners and participants	Interview	A volunteer from the management team and previous year winners	0.5 hours
To know how accounting system handles the cash inflow and outflow	Interview	Event Accountant	1 hour

- Admin/Organizer
- Student
- College
- Volunteers

1.7 Privileges:

Privileges simply means What are "User roles"?

Table Legend:

AB = College (including Administration)

A = Admin/organizer team

F = Full User/student

VN = Volunteers

Y = Yes

N = No

Features	User Roles			
	AB	A	F	VN
Manage Users (Add/Edit/Delete Users)	Y	Y	N	N
Customize Accompa (Add/Edit/Delete Fields)	Y	Y	N	N
Mass Edit/Delete Requirements	Y	Y	N	N
Configure College event Settings	Y	Y	N	N
Permission(Venue)	Y	N	N	N

User Features				
Add Requirements	Y	Y	Y	Y**
Add Relationships	Y	Y	Y	Y**
Add Attachments	Y	Y	Y	Y**
Add Links	Y	Y	Y	Y**
Take participation	Y	Y	Y	N**
View prizes	Y	Y	Y	Y
Add team member	Y	N	Y	N
Edit/Delete Requirements	Y	Y	Y	N
View Requirements	Y	Y	Y	Y
Search Requirements	Y	Y	Y	Y
Create Views	Y	Y	Y	N
Edit/Delete Views	Y	Y	Y *	N
Import Requirements	Y	Y	Y	N

These factors are not design constraints on the software but any changes to these factors can affect the requirements in the SRS. For example, an assumption may be that a specific operating system will be available on the hardware designated for the software product.

The main assumptions can be:

- The IT department of XYZ has all the available hardware required to support the intended user load.
- Since the application is a web based application there is a need for the internet browser. It will be assumed that the users will possess decent internet connectivity.
- Only one member of team will register

1.9 Business Constraints:

Business constraints play a significant role in determining the nature of a deployment project. One key to successful deployment design is finding the optimal way to meet business requirements within known business constraints. The business constraints can be fiscal limitations, physical limitations (for example, network capacity), time limitations (for example, completion before significant events such as the next annual meeting), or any other limitation you anticipate as a factor that affects the achievement of the business goal.

2. Noun Analysis

2.1 List of nouns:

•	College
_	Databas

- Database
- Tables
- Student
- Table
- Table
- Fest
- Event
- Detail
- Tables
- College
- Name
- Date
- Venue
- Student
- College
- Activities
- Entry
- Activity
- Table
- ID
- Student
- Table
- Stores
- Table
- Name
- Table
- Column
- Tables
- Maps
- Relationship
- Student
- Details
- Participation
- Activities
- College
- Database
- Details
- Winners
- Prizes
- College
- Part

- Life
- Reputation
- College
- Mark
- Events
- Mind
- Event
- Kind
- People
- Questionnaire
- College
- Student
- Colleges
- Record
- Parameters
- College
- Database
- Details
- Prizes
- Winner
- Entity
- College
- Database
- Table
- Event
- Students
- Winners
- Prizes
- Winner
- Table
- Tables
- ID
- Student
- ID
- Foreign
- ID
- Foreign
- Ranks
- Prizes
- ID
- Foreign
- Tables
- Detail
- Someone
- Event

- Entry
- Record
- Database
- Detail
- Prize
- Prize
- Tables
- Winners
- Table
- Entry
- Admin
- User
- Search
- Record
- Team
- College
- Event
- Student
- Detail
- Registration
- Form
- College
- Events
- Teams
- Students
- Registration
- Form
- Student
- Detail
- Student
- Team
- Member
- Team
- Student
- Id
- Name
- Course
- Duration
- Gender
- Student
- Team
- Member
- Group
- Authentication
- Team

- Detail
- Table
- User
- DB
- Time
- Detail
- Team
- Table
- Table
- Column
- ID
- Team
- Name
- Time
- System
- Column
- Team
- Event
- Entry
- table

2.2 Accepted Nouns

Candidate Entity set	Candidate Attribute	Candidate Relationship set
College	ID	Activities
Student	Name	Entry
Fest	Date	Stores
Event	Venue	Maps
Winner	Details	Relationship
Prizes	Mark	Participation
Admin	Authenticated	Part
User	Time	Search
Team		Registration

2.3 Rejected Nouns

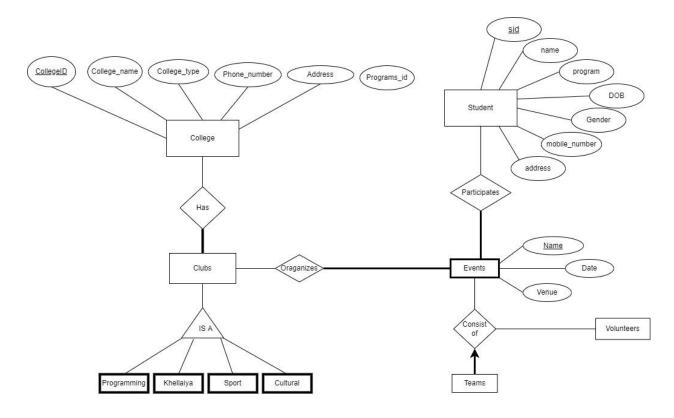
Noun	Reason for rejecting
Database	Database it self represent whole DB we can not represent as one entity.
Table	Table does not representing particular name. And repeating many times.
Detail	It is neither attribute nor entity
Column	Column itself database thing
Maps	Showing mapping

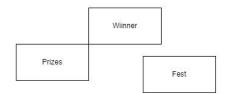
Continue..

- Relationship
- Life
- Reputation
- Mind
- Kind
- Questionnaire
- Parameters
- Entity
- Foreign
- Someone
- Search
- Record
- Registration
- Authentication
- DB
- System

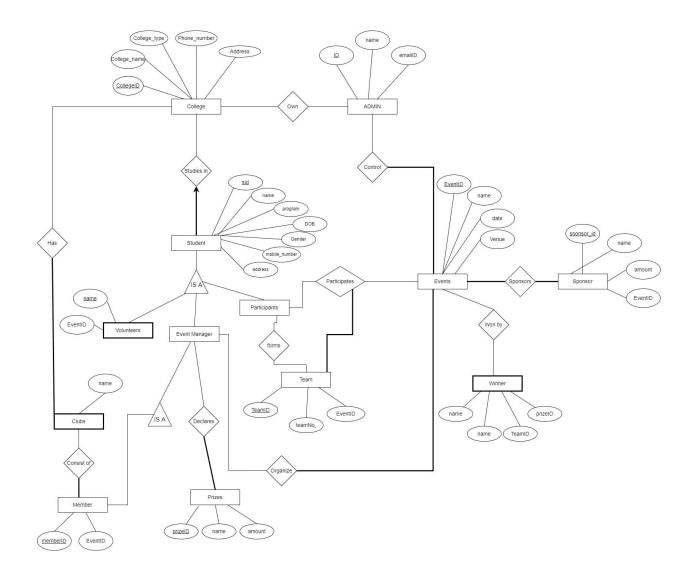
3. ER Diagram

ER_Version_0

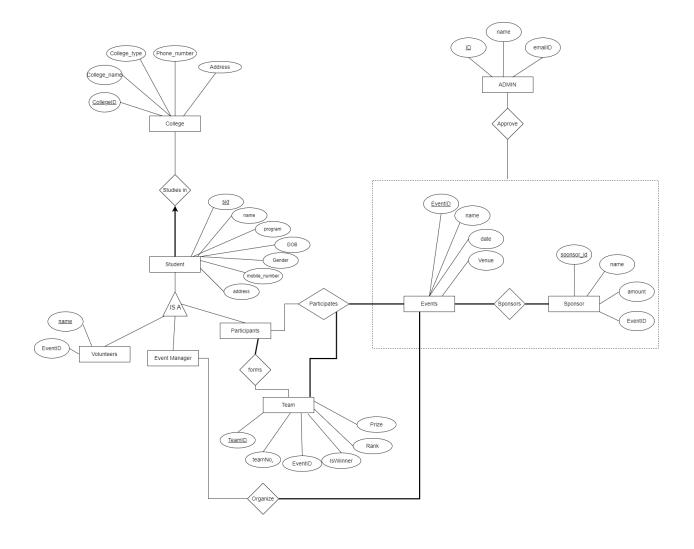




ER_Version_1



ER_Final_version



3. ER to relational mapping

Admin:

admin(<u>ID</u>:char(20), name: char(40), mail id: char(50))

College:

college(<u>college_id</u>:char(20), name: char(40), type: char(20), phone_number: char(15), address: char(60), mail: char(20))

Student:

student(<u>sutdent_id</u>: integer, name: char(50), program_id: bigint(FK to programs), dob: DATE, gender: char(7), mobile_number: char(20), address: char(60), semester: bigint, state: char(20), join date: DATE, college id: char(20)(FK to college))

Programs:

programs(program id:bigint, program name: char(20), since: DATE, duration:bigint)

Volunteers:

volunteers(srno: bigint, <u>vname: char(20), sid: integer(FK to student)</u>, event_id: bigint(FK to event), join date:DATE)

Team:

team(<u>team_id</u>: bigint, sid: bigint(FK to student), team_number: bigint, event_id: bigint,(FK to event), isWinner: bigint,rank: bigint, prize(char(50))

event:

event(event id: bigint, name: char(20), date: DATE, venue: char(20))

Sponsor:

sponsor(<u>sponsor id</u>: bigint, name:char(30), amount: bigint, since: DATE)

Sponsoring:

sponsoring(event id:bigint(FK to event), sposor id: bigint(FK to sponsor))

event manager:

event_manager(srno:bigint, <u>manager_name</u>: char(40), from_date: DATE, till_date:DATE, sid: bigint(FK to student), event_id: bigint(FK to event))

approve:

approve(event_id: bigint(FK to event), sponsor_id: bigint(FK to sponsor), ID: char(20))

4. List of relations with attribute and constraint

Admin

Column name	Data type/Domain Constraint	Constraint	Description
ID	CHAR(20)	PRIMARY KEY	Primary key of admin table
name	CHAR(20)	NOT NULL	Name of admin
mail_id	CHAR(20)	NOT NULL	Mail id of admin

College

Column name	Data type/Domain Constraint	Constraint	Description
college_id	CHAR(20)	PRIMARY KEY	ID of College
name	CHAR(50)	NOT NULL	Name of College
type	CHAR(20)	NOT NULL	(government/private/semi-g overnment)
phone_number	CHAR(15)	NOT NULL	Contact number of college
address	CHAR(60)	NOT NULL	Address of college
mail	CHAR(20)	NOT NULL	Mail of student

Student

Column name	Data type/Domain Constraint	Constraint	Description
student_id	INTEGER	PRIMARY KEY	Unique id of student
name	CHAR(50)	NOT NULL	Name of student
program_id	BIGINT	FOREIGN KEY	Foreign key references to program

			table
DOB	DATE	NOT NULL	Can fetch age through DOB
gender	CHAR(7)	NOT NULL	Male/Female/Other
mobile_number	CHAR(15)	NOT NULL	Mobile number of student
address	CHAR(60)	NOT NULL	Address of student
semester	bigint	NOT NULL	Semester number
state	CHAR(20)	NOT NULL	State of student
join_date	DATE	NOT NULL	Joining date in college
college_id	CHAR(20)	NOT NULL	To check student of which college

Program

Column name	Data type/Domain Constraint	Constraint	Description
program_id	bigint	PRIMARY KEY	Different program has ID
program_name	CHAR(20)	NOT NULL	Program name
Since	DATE	NOT NULL	When program introduced
duration	bigint	NOT NULL	How long program is

Volunteers

Column name Data type/Domain Constraint		Constraint	Description
srno	bigint	NULL	Serial number
vname	CHAR(20)	UNIQUE KEY	Name of volunteers
event_id	bigint	FOREIGN KEY	Event id of event table
sid	bigint	FOREIGN KEY	Student id
join_date	DATE	NOT NULL	Joining date of volunteer

Team

Column name	Data type/Domain Constraint	Constraint	Description
team_id	bigint	PRIMARY KEY	Team has id
sid	bigint	FOREIGN KEY	Student id
team_num	INTEGER	NOT NULL	Stores total member in team
event_id	bigint	FOREIGN KEY	Give detail about team formed for which event/fest
isWiinner	INTEGER	NOT NULL	Store 0 or 1 in respective of lost or won
rank	INTEGER	NOT NULL	Different winning team has rank
prize	CHAR(20)	NULL	Prize according to rank

Event

Column name	Column name Data type/Domain Constraint		Description
event_id	bigint	PRIMARY KEY	Primary key of events
name	CHAR(20)	NOT NULL	Name of event
date	DATE	NOT NULL	Date of event
venue	CHAR(20)	NOT NULL	Venue limits to college area

Sponsor

Column name	Data type/Domain Constraint	Constraint	Description	
sponsor_id	CHAR(20)	PRIMARY KEY	Unique id of sponsors	
name	CHAR(30)	NOT NULL	Name of sponsor	
amount	bigint	NOT NULL	Sponsorship amount	
since	DATE	NOT NULL	Date of sponsor participation	

Sponsoring

Column name Data type/Domain Constraint		Constraint	Description
event_id	bigint	UNIQUE KEY	Event id of event
sponsor_id	CHAR(20)	UNIQUE KEY	M:M relationship
event_id	bigint	FOREIGN KEY	Event id of event
sponsor_id	CHAR(20)	FOREIGN KEY	Reference to sponsor

Event manager

Column name	Column name Data type/Domain Constraint		Description
srno	srno bigint		Serial number
manager_name	CHAR(40)	UNIQUE KEY	Name of manager
from_date	DATE	NOT NULL	Date of joining of event manager
till_date	DATE	NOT NULL	Resign date of manager
sid	bigint	FOREIGN KEY	Student id of student table
event_id	bigint	FOREIGN KEY	Event id of event table

Aggregation

Approve

Column name	Data type/Domain Constraint	Constraint	Description
event_id	bigint	UNIQUE KEY	Reference to event
sponsor_id	CHAR(20)	UNIQUE KEY	Reference to sponsor
ID	CHAR(20)	UNIQUE KEY	Id of admin

<u>5. DDL</u>

Admin:

```
create table Admin(
ID char(20),
name char(20),
mail id char(30),
      college id bigint,
PRIMARY KEY(ID),
      FOREIGN KEY(college id) REFERENCES College
);
College:
Create table college(
College id CHAR(20)
College name CHAR(20),
Type CHAR(20),
Phone number bigint,
Address CHAR(50),
Mail CHAR(30)
PRIMARY KEY(college id)
);
Student:
create table Student(
sid bigint,
      name CHAR(50),
      program id bigint not null,
      semester bigint,
      DOB DATE,
      gender CHAR(16),
      mobile number CHAR(20),
      address CHAR(60),
      statee CHAR(40),
      join date DATE,
      college id bigint,
      PRIMARY KEY(sid),
      FOREIGN KEY(program id) REFERENCES Programs,
      FOREIGN KEY(college id) REFERENCES College
      ON DELETE CASCADE
      ON UPDATE SET DEFAULT);
Programs:
CREATE TABLE Programs(
program id bigint,
      program name CHAR(20),
```

```
since DATE,
      duration bigint,
      PRIMARY KEY(program id)
);
Volunteers:
create table volunteers(
      srno bigint,
vname char(40),
      event id bigint,
      sid INTEGER NOT NULL,
      join date DATE,
      PRIMARY KEY(vname, sid),
      FOREIGN KEY(sid) REFERENCES student
      FOREIGN KEY(event id) REFERENCES event
      ON DELETE CASCADE
);
Event:
create table event(
event id bigint,
      event name CHAR(50),
      date DATE,
      venue CHAR(20),
      PRIMARY KEY(event id)
);
Event manager:
create table event manager(
      srno bigint,
manager name char(50),
      from date date,
      till date date,
      sid bigint,
      event id bigint,
      PRIMARY KEY(manager_name,sid),
      FOREIGN KEY(sid) REFERENCES student,
      FOREIGN KEY(event id) REFERENCES event
      ON DELETE CASCADE
      ON UPDATE CASCADE
);
```

```
Team:
create table team(
team id bigint,
      sid bigint,
      event id bigint,
      team number INTEGER,
      isWinner bigint,
      team rank bigint,
      prize CHAR(40),
      PRIMARY KEY(sid,team id),
      FOREIGN KEY(event id) REFERENCES event,
      FOREIGN KEY(sid) REFERENCES student
      ON DELETE CASCADE
);
Sponsor:
create table sponsor(
sponsor id bigint,
      sponsor name char(30),
      amount bigint,
      since date,
      PRIMARY KEY(sponsor id)
);
Sponsoring:
create table sponsoring(
      srno bigint,
event id bigint,
      sponsor_id bigint,
      PRIMARY KEY(event id, sponsor id),
      FOREIGN KEY(event id) REFERENCES event,
      FOREIGN KEY(sponsor id) REFERENCES sponsor
      ON DELETE CASCADE
);
Approving:
create table approving(
event id bigint,
      sponsor_id bigint,
```

FOREIGN KEY(event_id) REFERENCES event, FOREIGN KEY(sponsor_id) REFERENCES sponsor ON DELETE CASCADE

);

6. Populating Data in Database

Student:

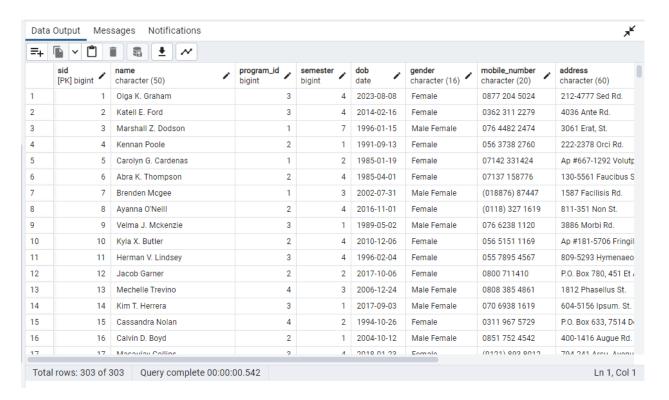
COPY

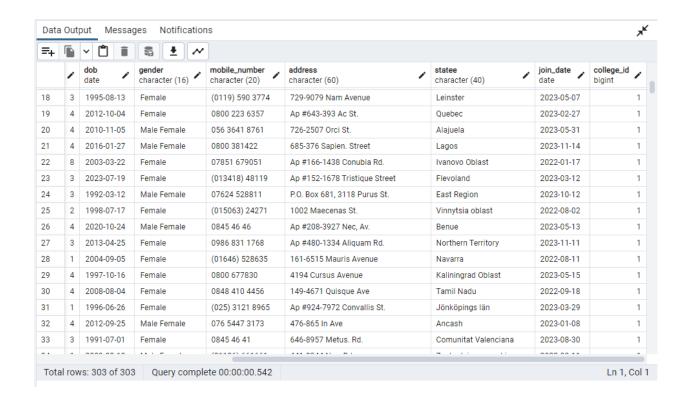
"student"("sid","name","program_id","semester","dob","gender","mobile_number","address","st atee","join_date","college_id")

FROM 'E:\202212024\DBMS\LAB\collegefest\students.csv'

DELIMITER ','

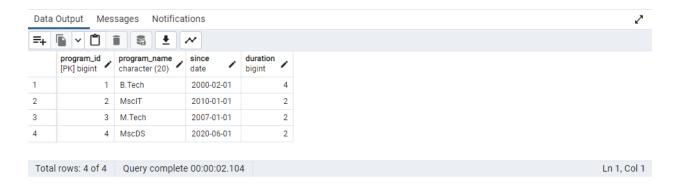
CSV HEADER;





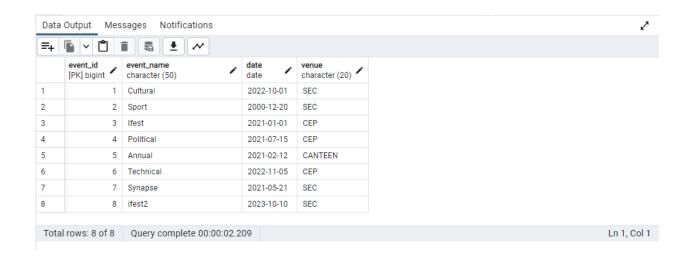
Programs:

COPY "programs" ("program_id", "program_name", "since", "duration") FROM 'E:\202212024\DBMS\LAB\collegefest\programs.csv' DELIMITER ',' CSV HEADER;



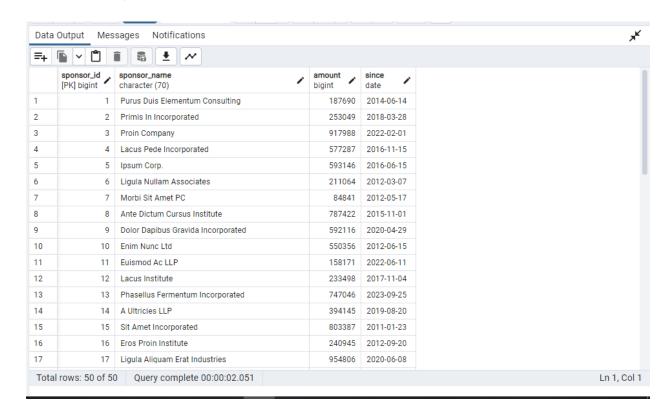
Event:

COPY "event" ("event_id", "event_name", "date", "venue") FROM 'E:\202212024\DBMS\LAB\collegefest\events.csv' DELIMITER ','
CSV HEADER;



Sponsor:

COPY "sponsor"("sponsor_id", "sponsor_name", "amount", "since") FROM 'E:\202212024\DBMS\LAB\collegefest\sponsors.csv' DELIMITER ',' CSV HEADER;



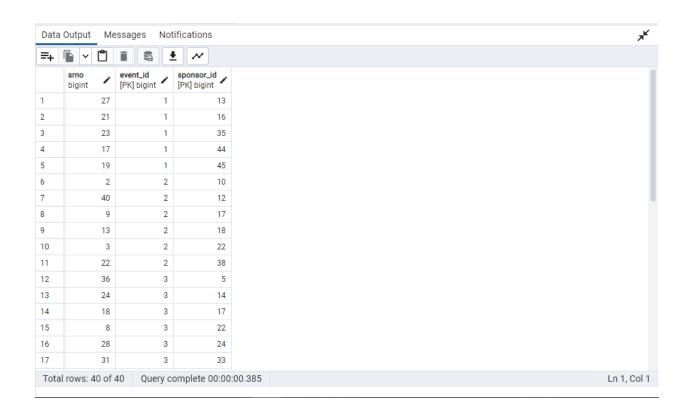
Event_manager:

COPY "event_manager"("srno","manager_name","from_date","till_date","sid","event_id") FROM 'E:\202212024\DBMS\LAB\collegefest\event_manager.csv' DELIMITER ',' CSV HEADER;

=+							
	srno bigint	manager_name [PK] character (50)	/ from_date /	till_date /	sid [PK] bigint	event_id /	
1	11	Brenda Dalton	2009-08-01	2023-11-05	101	2	
2	19	Brenda Daltonnn	2009-08-01	2011-08-01	231	2	
3	5	Calvin Floyd	2021-08-28	2023-05-05	105	2	
4	7	Claire Dejesus	2011-07-03	2023-08-18	116	2	
5	3	Cole Hensley	2009-06-13	2023-02-11	100	6	
6	14	Daphne Vasquez	2012-02-13	2023-03-26	84	5	
7	15	Deirdre Lindsay	2013-09-26	2023-02-04	90	6	
8	16	Elliott Velazquez	2013-09-15	2023-03-25	87	4	
9	4	Erasmus Richardson	2023-03-25	2022-12-25	100	1	
10	18	Ingrid Burke	2010-10-15	2023-07-13	107	6	
11	12	Jackson Dickerson	2021-09-11	2023-07-25	96	6	
12	8	Jakeem Pugh	2023-11-03	2023-08-05	79	3	
13	2	Joy Robertson	2021-11-02	2023-06-07	107	4	
14	6	Karyn Vazquez	2009-12-23	2023-03-06	87	7	
15	10	Kitra Keith	2019-08-21	2023-06-19	89	2	
16	1	Leigh Camacho	2020-01-16	2023-08-18	114	6	
17	17	Tara Ramos	2017-10-12	2023-09-27	106	6	

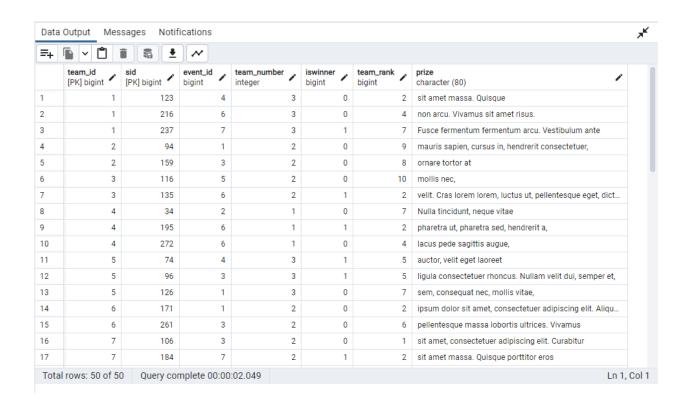
Sponsoring:

COPY "sponsoring"("srno", "event_id", "sponsor_id")
FROM 'E:\202212024\DBMS\LAB\collegefest\sponsoring.csv'
DELIMITER ','
CSV HEADER;



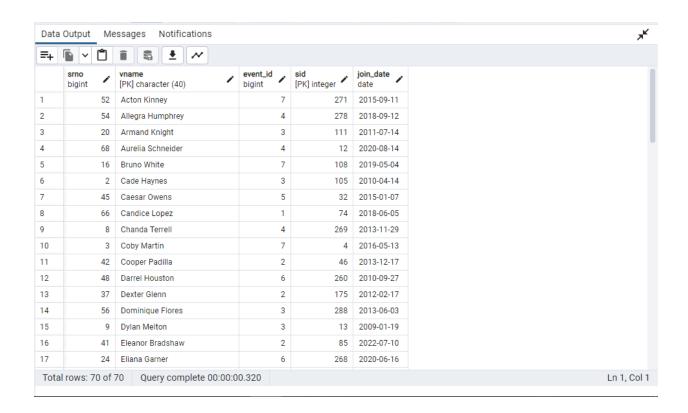
Team:

COPY "team" ("team_id", "sid", "event_id", "team_number", "iswinner", "team_rank", "prize") FROM 'E:\202212024\DBMS\LAB\collegefest\teams.csv'
DELIMITER ','
CSV HEADER;



Volunteers:

COPY "volunteers"("srno","vname","event_id","sid","join_date") FROM 'E:\202212024\DBMS\LAB\collegefest\volunteers.csv' DELIMITER ',' CSV HEADER;



Approving:

COPY "approving"("event_id", "sponsor_id")

 $FROM \ 'E: \ \ \ DBMS \ \ \ LAB \ \ college fest \ \ \ approve.csv'$

DELIMITER ','

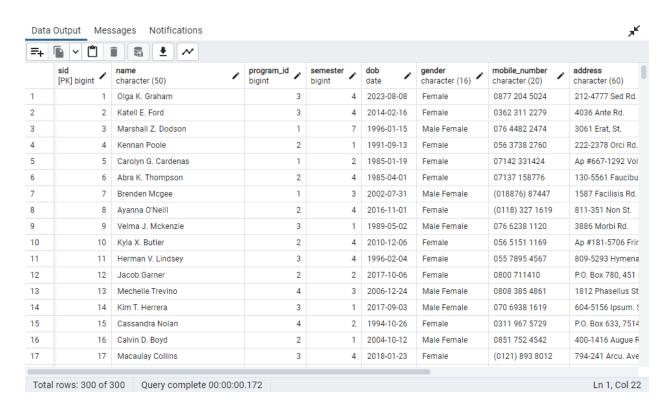
CSV HEADER;



7. Queries

1. Show all student information.

select * from student



2. Display all programs teach in college.

select * from programs



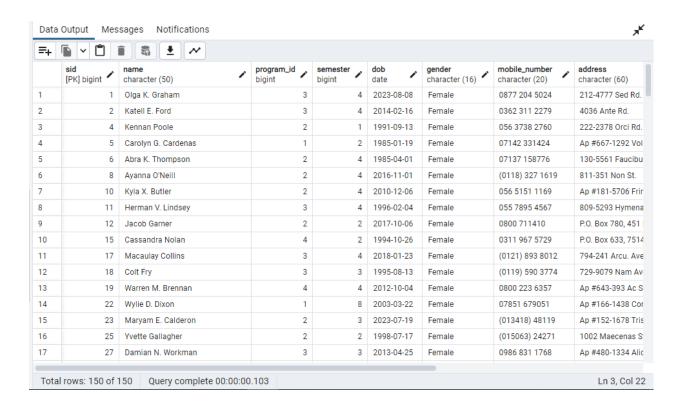
3. Show students who studies in MscIT program.

select *
from student
where program_id in (select program_id
from programs
where program_name='MscIT')

	sid [PK] bigint	name character (50)	program_id /	semester bigint	dob date	gender character (16)	mobile_number character (20)	address character (60)	
1	4	Kennan Poole	2	1	1991-09-13	Female	056 3738 2760	222-2378 Orci R	
2	6	Abra K. Thompson	2	4	1985-04-01	Female	07137 158776	130-5561 Faucib	
3	8	Ayanna O'Neill	2	4	2016-11-01	Female	(0118) 327 1619	811-351 Non St.	
4	10	Kyla X. Butler	2	4	2010-12-06	Female	056 5151 1169	Ap #181-5706 F	
5	12	Jacob Garner	2	2	2017-10-06	Female	0800 711410	P.O. Box 780, 45	
6	16	Calvin D. Boyd	2	1	2004-10-12	Male Female	0851 752 4542	400-1416 Augue	
7	20	Idona Bean	2	4	2010-11-05	Male Female	056 3641 8761	726-2507 Orci S	
8	23	Maryam E. Calderon	2	3	2023-07-19	Female	(013418) 48119	Ap #152-1678 T	
9	25	Yvette Gallagher	2	2	1998-07-17	Female	(015063) 24271	1002 Maecenas	
10	26	Nicole Alexander	2	4	2020-10-24	Male Female	0845 46 46	Ap #208-3927 N	
11	32	Randall U. Frost	2	4	2012-09-25	Male Female	076 5447 3173	476-865 In Ave	
12	39	Andrew C. Wallace	2	1	2004-03-11	Male Female	0800 556811	917-8607 Egesta	
13	41	Sydney Atkinson	2	3	1991-06-21	Male Female	070 6139 8253	1064 Urna. St.	
14	52	Chester Hunter	2	4	1993-04-30	Male Female	07178 682454	856-9779 Magna	
15	53	Hakeem Strong	2	2	1986-05-05	Male Female	0500 947728	8398 Vitae, Ave	
16	55	Ariel Walsh	2	1	1996-08-04	Female	(0113) 930 8868	P.O. Box 450, 54	
17	58	Erin Y. Carver	2	2	2015-07-31	Female	(0112) 424 7712	511-8376 Nulla	

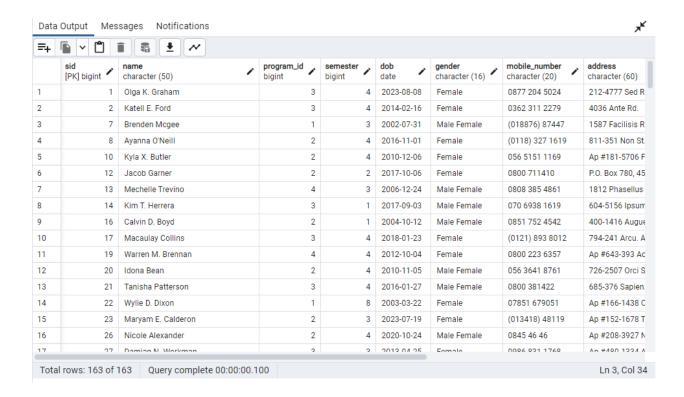
4. Display all female students.

select * from student where gender='Female'

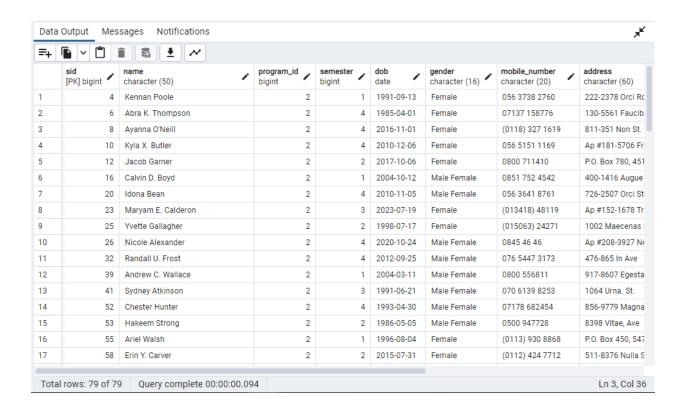


5. Display students name who is born after 2000.

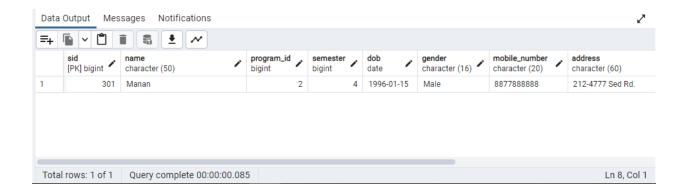
select * from student where extract(year from dob)>2000



6. Show only student information who are currently enrolled in MscIT program

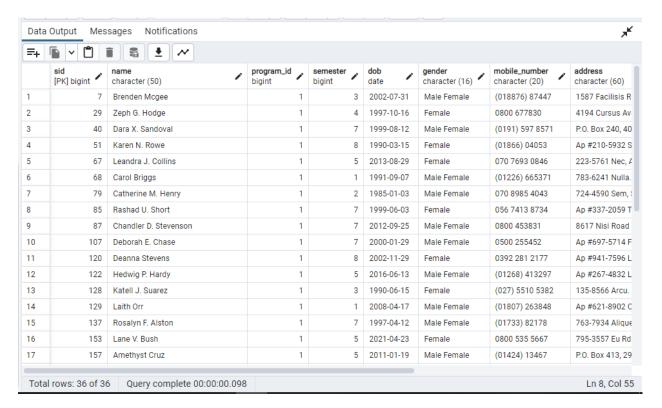


7. Show former student of MscIT program.



8. Show student who are 2027passed out(Btech program).

join_date>=(join_date+interval '48 months')

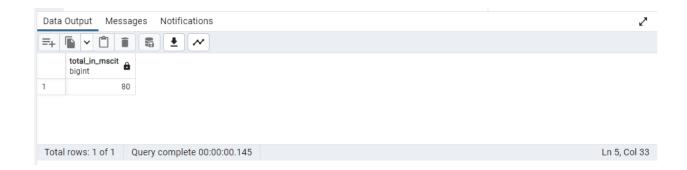


9. Show student who are out of gujarat state.

select *
from student
where statee <> 'Gujarat'

	sid [PK] bigint	name character (50)	program_id >	semester bigint	dob date	gender character (16)	mobile_number character (20)	address character (60)
1	1	Olga K. Graham	3	4	2023-08-08	Female	0877 204 5024	212-4777 Sed Rd
2	2	Katell E. Ford	3	4	2014-02-16	Female	0362 311 2279	4036 Ante Rd.
3	3	Marshall Z. Dodson	1	7	1996-01-15	Male Female	076 4482 2474	3061 Erat, St.
4	4	Kennan Poole	2	1	1991-09-13	Female	056 3738 2760	222-2378 Orci Ro
5	5	Carolyn G. Cardenas	1	2	1985-01-19	Female	07142 331424	Ap #667-1292 Vo
6	6	Abra K. Thompson	2	4	1985-04-01	Female	07137 158776	130-5561 Faucib
7	7	Brenden Mcgee	1	3	2002-07-31	Male Female	(018876) 87447	1587 Facilisis Ro
8	8	Ayanna O'Neill	2	4	2016-11-01	Female	(0118) 327 1619	811-351 Non St.
9	9	Velma J. Mckenzie	3	1	1989-05-02	Male Female	076 6238 1120	3886 Morbi Rd.
10	10	Kyla X. Butler	2	4	2010-12-06	Female	056 5151 1169	Ap #181-5706 Fr
11	11	Herman V. Lindsey	3	4	1996-02-04	Female	055 7895 4567	809-5293 Hymer
12	12	Jacob Garner	2	2	2017-10-06	Female	0800 711410	P.O. Box 780, 45
13	13	Mechelle Trevino	4	3	2006-12-24	Male Female	0808 385 4861	1812 Phasellus
14	14	Kim T. Herrera	3	1	2017-09-03	Male Female	070 6938 1619	604-5156 lpsum
15	15	Cassandra Nolan	4	2	1994-10-26	Female	0311 967 5729	P.O. Box 633, 75
16	16	Calvin D. Boyd	2	1	2004-10-12	Male Female	0851 752 4542	400-1416 Augue
17	17	Macaulay Colline	9	Λ	2010 01 22	Enmala	(0121) 002 0012	704 241 Aren A

10. How many student currently enrolled in MscIT program.



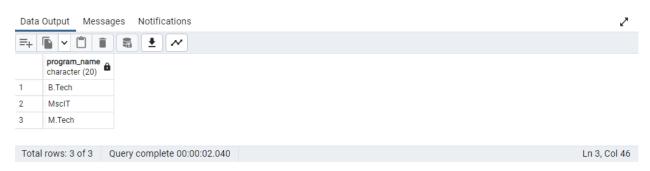
11. List the program which introduced in year 2022.

select program_name from programs where extract(year from since)=2020



12. List the program which introduced 5 year ago from current date.

select program_name from programs where since<(current date-interval '5' year))



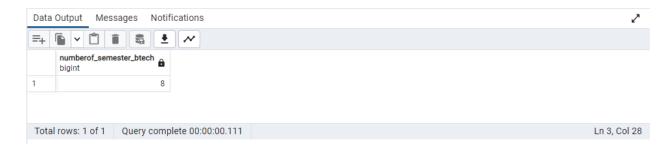
13. List the program which is 2 year long.

select program_name from programs where duration=2



14. How many number of semester in B.Tech program?

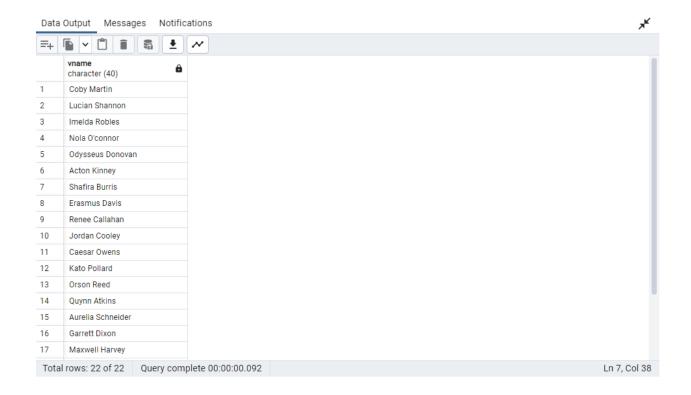
select (duration*2) as NumberOf_Semester_BTECH from programs where program_name='B.Tech'



15. List name of volunteers from MscIT program.

```
select vname
from volunteers
where sid in (select sid

from student
where program_id in (select program_id
from programs
where
program name='MscIT'))
```

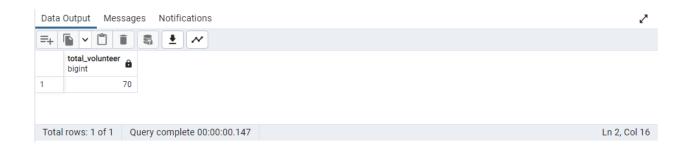


16. Count the number of volunteers of Synapse event.



17. Show total number of volunteers.

select count(*) as Total_volunteer
from volunteers



18. How many volunteers who are in Btech program and also female.

```
select count(*)
from volunteers
where sid in (select sid

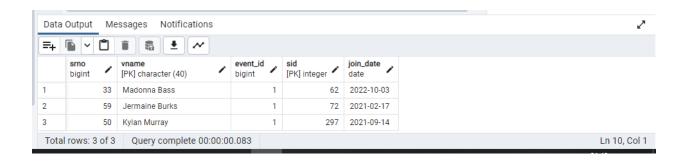
from student
where gender='Female' and program_id in (select program_id

from programs

where program_name='B.Tech'))
```

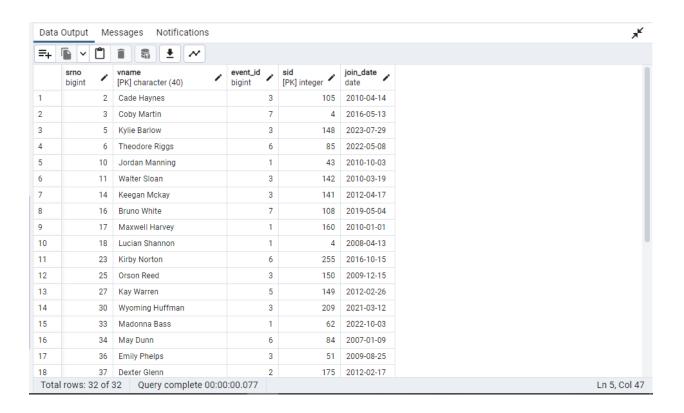


19. Show volunteer information who is part of Cultural event from last 2 year.



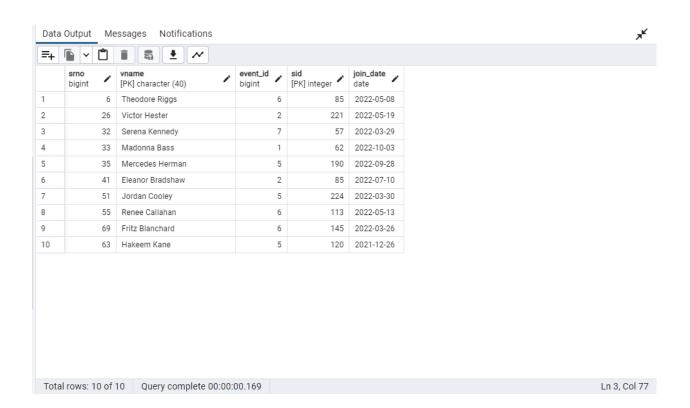
20. List volunteers who's age is greater than 21.

select *
from volunteers
where sid in (select distinct sid
from student
where dob<current date-interval '21' year)



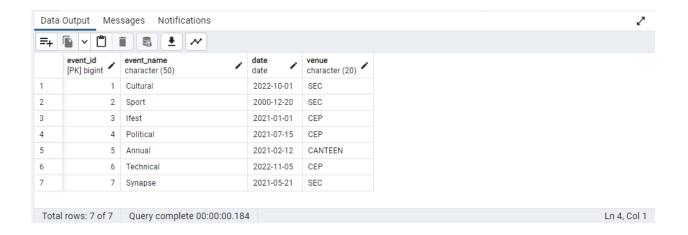
21. List volunteers who joined 1 year ago.

select *
from volunteers
where join_date>= current_date-interval '1' year and join_date<=current_date



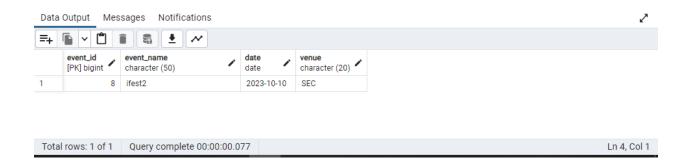
22. List all the event which happened till now.

select * from event where date<current date



23. List all upcoming events.

select *
from event
where date>current_date



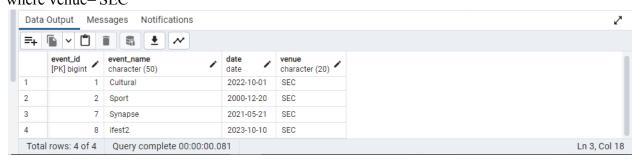
24. Display events which placed in oct.month.

select * from event where EXTRACT(MONTH FROM date) = 10



25. Display name of event which organized at college ground(SEC).

select event_name from event where venue='SEC'

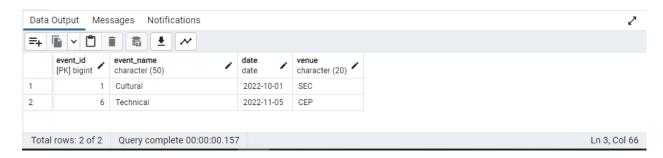


26. How many events occurred from 6 month ago to till now.

select *

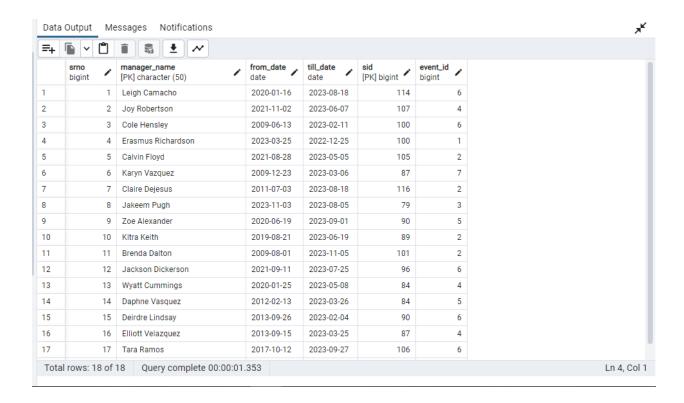
from event

where date<current_date and date>current_date-interval '6 months'



27. Display event manager information who are currently serving.

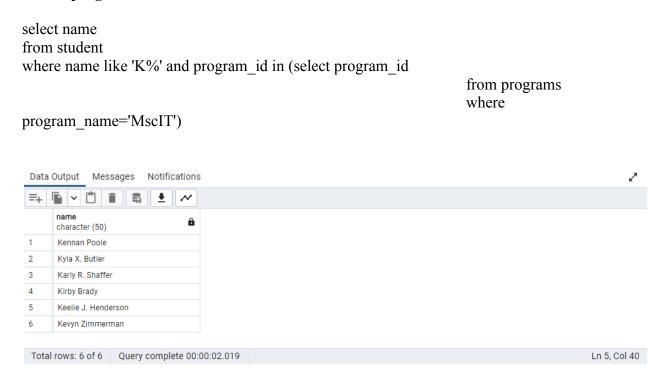
select *
from event_manager
where till date>=current date



28. Count manager of Synapse event.



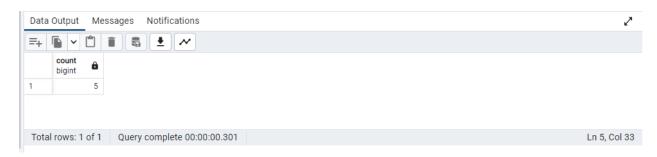
29. Display name of student where first letter of their name is "K" and also part of MscIT program.



30. Number of percentage that shows involvement of MScIT program as event manager.

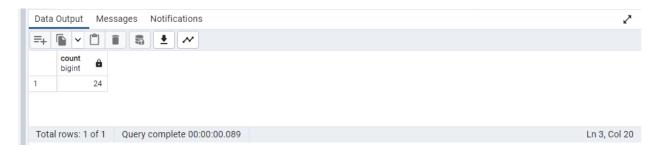


31. How many team has participated in Sport event.



32. Count number of team who have 3 member in it.

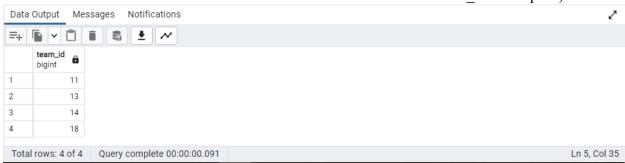
select count(*)
from team
where team_number=3



33. List team id who is winner of sport event.

select team_id from team where iswinner=1 and event_id in (select event_id

from event where event name='Sport')

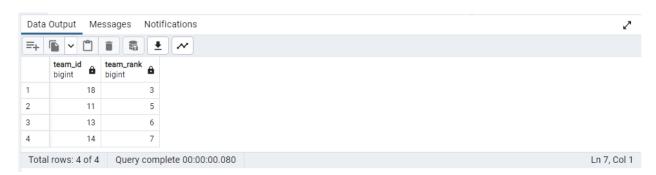


34. Show winner team's detail rank wise in Sport event.

select team_id,team_rank
from team
where iswinner=1 and event_id in (select event_id

from event where event name='Sport')

order by team rank



35. How many teams from MscIT 1st year?

select team_id as team_MSCIT
from team
where sid in (select sid
from student
where (((semester)/2)+(semester%2))=1 and program_id in (select
program id

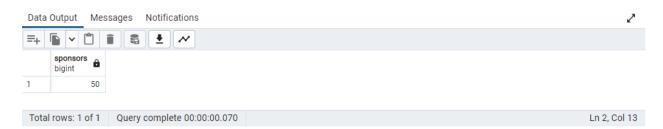
from programs

where program_name='MscIT'))



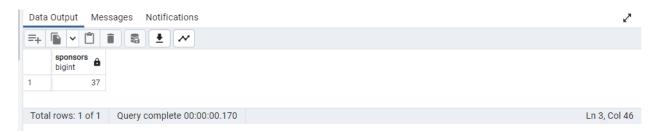
36. How many sponsors participating this year?

select count(*) as Sponsors
from sponsor



37. Sponsors which participating from last 3 year.

select count(*) as Sponsors from sponsor where since<current_date-interval '36 months'



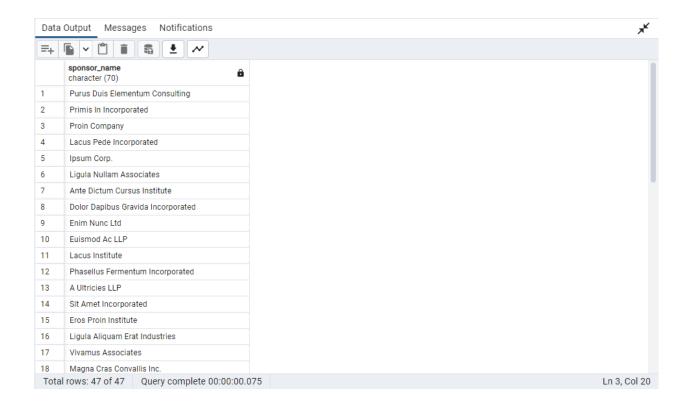
38. Create view of sponsors and check after manipulation.

CREATE VIEW studentInfo AS SELECT * FROM student;



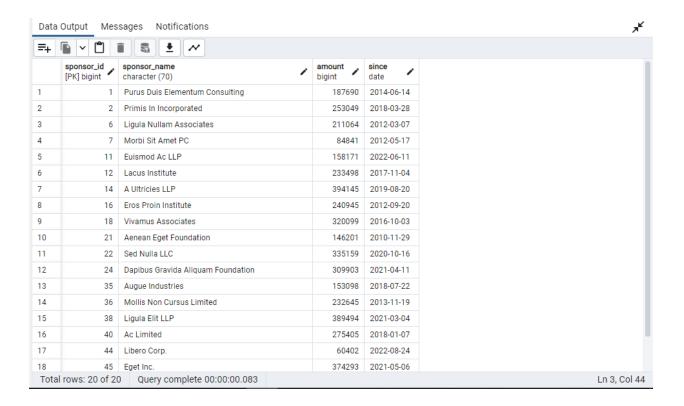
39. List sponsors who sponsoring amount greater than 100000.

select sponsor_name from sponsor where amount>100000

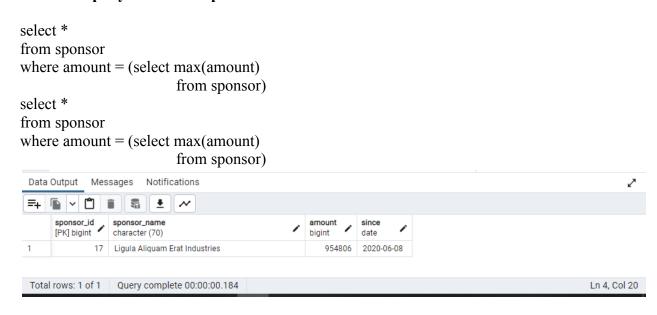


40. Find number of sponsors who sponsored amount less than 500000 in 2021 year.

select * from sponsor where amount<500000 and since<=current_date



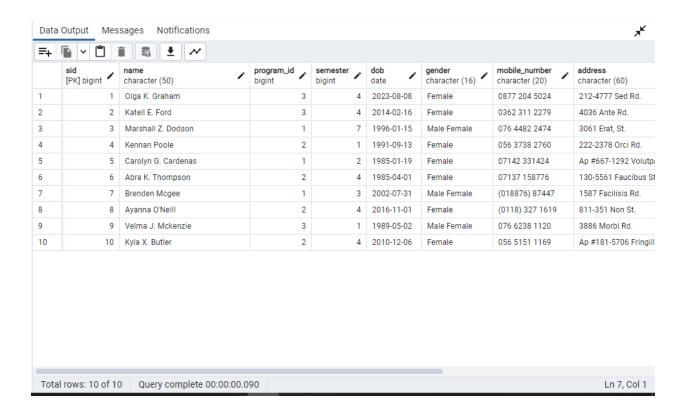
41. Name company detail who sponsored maximum amount in 2022.



42. How many sport winner team are from MscIT program.

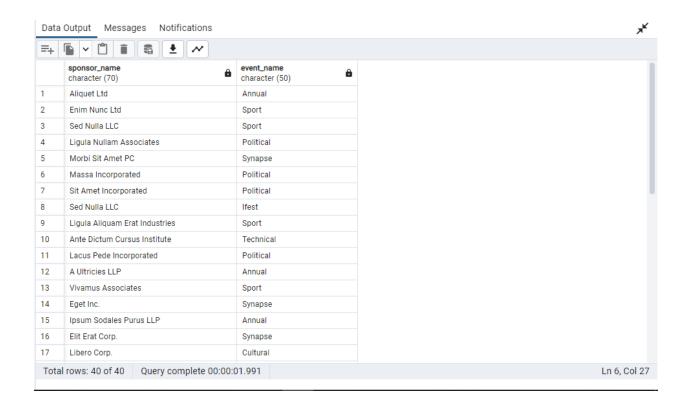
```
select count(*) as winner MSCIT
from team
where iswinner=1 and event id in (select event id
                                                          from event
                                                          where event name='Sport')
and
sid in (select sid
         from student
        where program id in (select program id
                                             from programs
                                             where program name='MscIT'))
 Data Output Messages Notifications
 bigint
 Total rows: 1 of 1   Query complete 00:00:00.077
                                                                                     Ln 11, Col 38
```

43. Show only 10 student who studies in DAIICT.



44. Show which sponsors sponsoring which event

select sponsor_name,event_name from sponsor s1 inner join sponsoring r1 on r1.sponsor_id=s1.sponsor_id inner join event e1 on e1.event_id=r1.event_id



45. List event which is approved by Admin

select event_name from event e join approving a on a.event_id= e.event_id

