

DBMS - Mini Project
VolCause

Submitted By:

Shrujan

PES1UG20CS415

V Semester Section G

Short Description and Scope of the Project

Volcause is a SQL-based volunteer database management system. This can be used to organise events and volunteers of that event along with the data of the management of that event . This is designed to be used by the administrator of an organisation that provides volunteers to the events that are specified by some other organisation. The third-party organisation along with the details of the point of contact of the organisation that is the manager of the organisation's public relations is stored in the database in a separate table. Every event details along with the volunteers details is present in the database.

It includes features like prevention of clashing event dates for a volunteers and backup of the table .

Have all the details of the members and their contact info in the table which can be then used to contact the members .

It gives the option to register as a volunteer to a particular event and also connects the organisation details to the event and members.

Future Scope

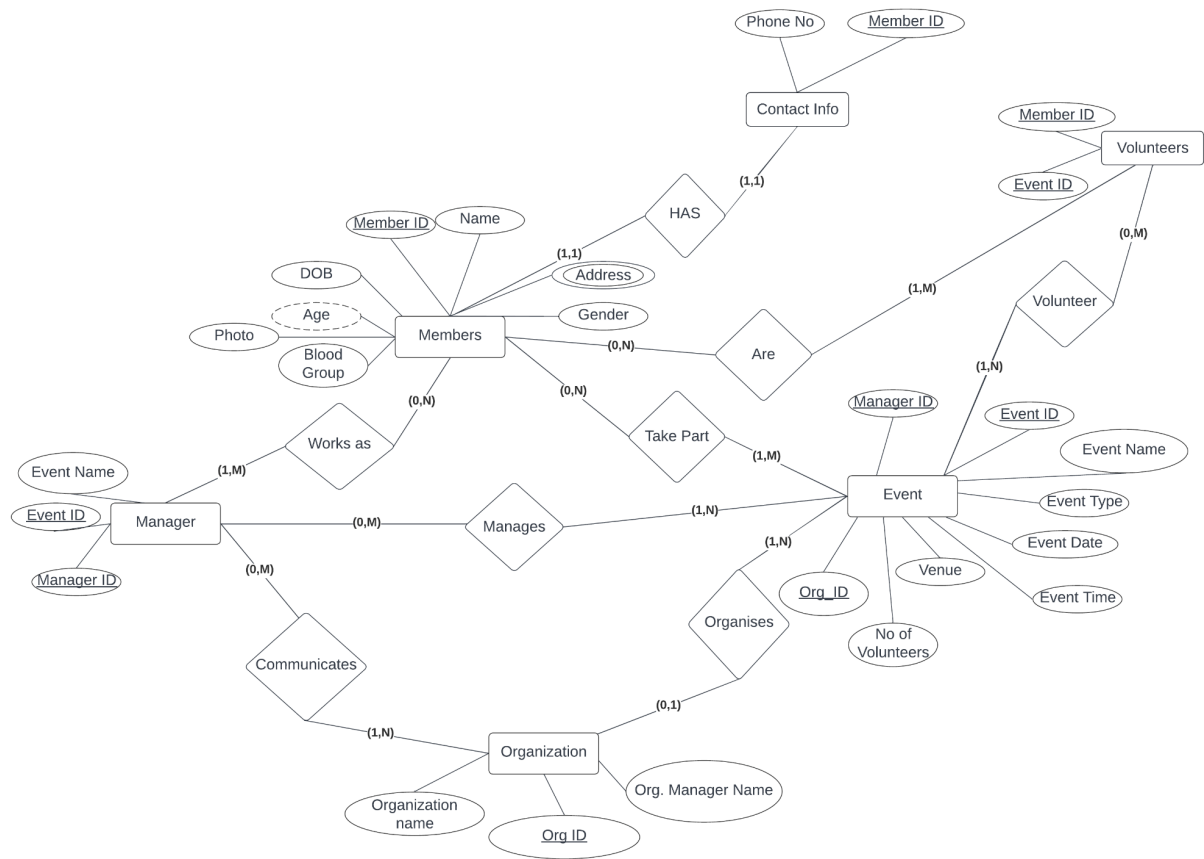
This database can be upgraded to include a member page and organization view page.

This could also include a member profile page that shows the member details and an option to put up profile photos and also have a mailing system .

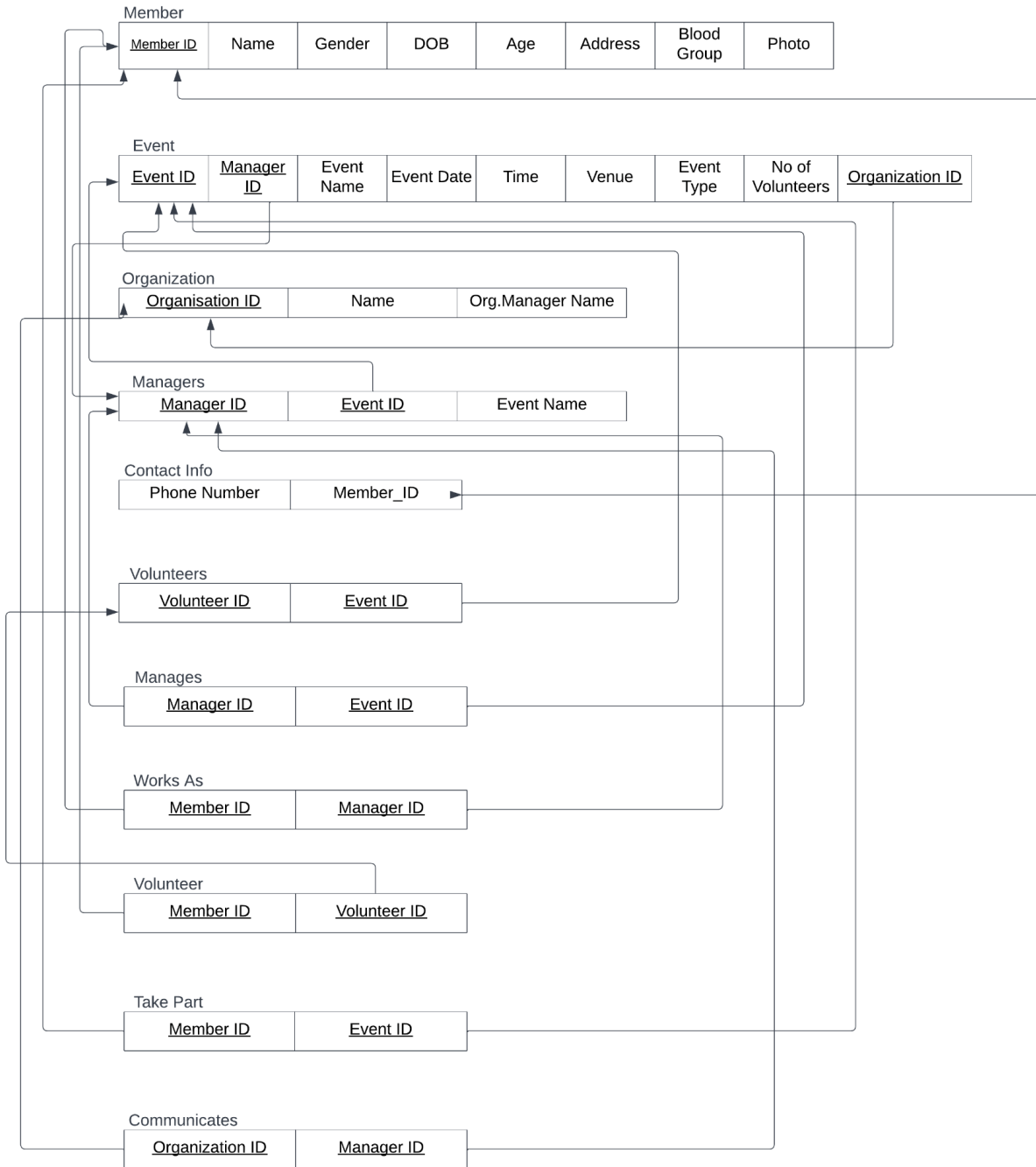
An option to have a mail list that periodically send the future event details to the members of the organisation.

A Donation Box option can be added that connects the non profit organizaion and charities to the members so that they can donate money to these organisation

ER Diagram



Relational Schema



DDL statements - Building the database

```
DROP DATABASE VOLCAUSE_415;
CREATE DATABASE VOLCAUSE_415;

USE VOLCAUSE;

CREATE TABLE MEMBERS_415(
    Member_ID int not null,
    Name varchar(255),
    Gender varchar(255),
    DOB date,
    Age int,
    Blood_group varchar(255),
    Address varchar(255),

    PRIMARY KEY (Member_ID)
);

CREATE TABLE CONTACT_415(
    Member_ID int not null,
    Phone varchar(10),

    CONSTRAINT chk_phone CHECK (phone not like '%[^0-9]%'),
    FOREIGN KEY(Member_ID) REFERENCES MEMBERS_415(Member_ID) on DELETE
CASCADE
);

CREATE TABLE ORGANIZATION_415(
    Org_ID int not null,
    Org_Name varchar(255),
    Org_Manager varchar(255),

    PRIMARY KEY (Org_ID)
);

CREATE TABLE Event_415(
    Event_ID int not null,
```

```

Manager_ID int not null,
Event_Name varchar(255) not null,
Event_Type varchar(255),
Event_Date DATE not null,
Event_Time TIME,
Venue varchar(255),
Volunteer_count int,
Org_ID int,

PRIMARY KEY (Event_ID),
FOREIGN KEY(Manager_ID) REFERENCES MEMBERS_415(Member_ID) on DELETE
CASCADE,
FOREIGN KEY(Org_ID) REFERENCES ORGANIZATION_415(Org_ID) on DELETE
CASCADE
);

CREATE TABLE Manager_415(
Event_Name varchar(255),
Manager_Name varchar(255),
Manager_ID int not null,
Event_ID int not null,

PRIMARY KEY (Manager_ID),
FOREIGN KEY(Manager_ID) REFERENCES MEMBERS_415(Member_ID) on DELETE
CASCADE,
FOREIGN KEY(Event_ID) REFERENCES Event_415(Event_ID) on DELETE CASCADE
);

CREATE TABLE Volunteers_415(
Event_ID int not null,
Member_ID int not null,

FOREIGN KEY(Event_ID) REFERENCES Event_415(Event_ID) on DELETE
CASCADE,
FOREIGN KEY(Member_ID) REFERENCES MEMBERS_415(Member_ID) on DELETE
CASCADE
);

```

Creation of Tables

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0008 seconds.)

`DROP DATABASE VOLCAUSE_415;`

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0007 seconds.)

`CREATE DATABASE VOLCAUSE_415;`

[Edit inline] [Edit] [Create PHP code]

⚠ Error: #1049 Unknown database 'volcause_415'

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

`USE VOLCAUSE;`

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0298 seconds.)

`CREATE TABLE MEMBERS_415(Member_ID int not null, Name varchar(255), Gender varchar(255), DOB date, Age int, Blood_group varchar(255), Address varchar(255), PRIMARY KEY (Member_ID));`

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0194 seconds.)

`CREATE TABLE CONTACT_415(Member_ID int not null, Phone varchar(10), CONSTRAINT chk_phone CHECK (phone not like '%(*0-9)%'), FOREIGN KEY(Member_ID) REFERENCES MEMBERS_415(Member_ID) on DELETE CASCADE);`

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0206 seconds.)

`CREATE TABLE ORGANIZATION_415(Org_ID int not null, Org_Name varchar(255), Org_Manager varchar(255), PRIMARY KEY (Org_ID));`

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0229 seconds.)

`CREATE TABLE Event_415(Event_ID int not null, Manager_ID int not null, Event_Name varchar(255) not null, Event_Type varchar(255), Event_Date DATE not null, Event_Time TIME, Venue varchar(255), Volunteer_count int, Org_ID int, PRIMARY KEY (Event_ID), FOREIGN KEY(Manager_ID) REFERENCES MEMBERS_415(Member_ID) on DELETE CASCADE, FOREIGN KEY(Org_ID) REFERENCES ORGANIZATION_415(Org_ID) on DELETE CASCADE);`

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0206 seconds.)

`CREATE TABLE Manager_415(Event_Name varchar(255), Manager_Name varchar(255), Manager_ID int not null, Event_ID int not null, PRIMARY KEY (Manager_ID), FOREIGN KEY(Manager_ID) REFERENCES MEMBERS_415(Member_ID) on DELETE CASCADE, FOREIGN KEY(Event_ID) REFERENCES Event_415(Event_ID) on DELETE CASCADE);`

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0221 seconds.)

`CREATE TABLE Volunteers_415(Event_ID int not null, Member_ID int not null, FOREIGN KEY(Event_ID) REFERENCES Event_415(Event_ID) on DELETE CASCADE, FOREIGN KEY(Member_ID) REFERENCES MEMBERS_415(Member_ID) on DELETE CASCADE);`

[Edit inline] [Edit] [Create PHP code]

Console

Data Entry to the Database

The majority of the data entry is done using import from CSV file and few of the entry is done is using the SQL query

MEMBER

✓ 1 row inserted. (Query took 0.0126 seconds.)
<pre>INSERT INTO `members_415` VALUES ('2022001', 'Anoushka Vemireddy', 'Female', '1992-05-15', '', 'A+', 'ABC , street Bangalore');</pre>
[Edit inline] [Edit] [Create PHP code]
⚠ Warning: #1366 Incorrect integer value: '' for column 'volcause_415`.`members_415`.`Age' at row 1
✓ 1 row inserted. (Query took 0.0021 seconds.)
<pre>INSERT INTO `members_415` VALUES ('2022002', 'Gautham Krithivas', 'Male', '1998-07-12', '', 'B+', 'DEF , street Bangalore');</pre>
[Edit inline] [Edit] [Create PHP code]
⚠ Warning: #1366 Incorrect integer value: '' for column 'volcause_415`.`members_415`.`Age' at row 1
✓ 1 row inserted. (Query took 0.0012 seconds.)
<pre>INSERT INTO `members_415` VALUES ('2022003', 'Harikrishnan G', 'Male', '1989-09-11', '', 'O+', 'GHI , street Bangalore');</pre>
[Edit inline] [Edit] [Create PHP code]
⚠ Warning: #1366 Incorrect integer value: '' for column 'volcause_415`.`members_415`.`Age' at row 1
✓ 1 row inserted. (Query took 0.0013 seconds.)
<pre>INSERT INTO `members_415` VALUES ('2022004', 'Hitesh Singh', 'Male', '1999-03-23', '', 'AB+', 'JKL , street Bangalore');</pre>
[Edit inline] [Edit] [Create PHP code]
⚠ Warning: #1366 Incorrect integer value: '' for column 'volcause_415`.`members_415`.`Age' at row 1
✓ 1 row inserted. (Query took 0.0013 seconds.)
<pre>INSERT INTO `members_415` VALUES ('2022005', 'ANEESH K B', 'Male', '2002-01-01', '', 'A-', 'MNO, street Bangalore');</pre>
[Edit inline] [Edit] [Create PHP code]

Contacts

✓ Showing rows 0 - 15 (16 total, Query took 0.0003 seconds.)

SELECT * FROM `contact_415`

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

Member_ID	Phone
2022001	9876543210
2022002	9876543211
2022003	9856543212
2022004	9876524213
2022005	7654543214
2022006	8876543215
2022007	9835743216
2022008	9839423217
2022009	9894213218
2022010	7894543219
2022011	8975543220
2022012	9876543221
2022013	8645243222
2022014	9876543223
2022015	9876543224
2022016	9876543225

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Event

Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

SELECT * FROM `event_415`

☐ Profiling

[Edit inline]

[Edit]

[Explain SQL]

[Create PHP code]

[Refresh]

☐ Show all

|

Number of rows: 25

|

Filter rows:

|

Sort by key: None

Extra options

				Event_ID	Event_Name	Manager_ID	Event_Type	Event_Date	Event_Time	Venue	Volunteer_count	Org_ID
<input type="checkbox"/>				E22001	Blood Donation	2022007	Health	2022-09-13	08:00:00	PES University Bangalore	0	ORG004
<input type="checkbox"/>				E22002	English for all	2022010	Education	2023-05-10	09:30:00	Government School Banashankari	0	ORG005
<input type="checkbox"/>				E22003	Plantation Drive	2022003	Environment	2022-09-13	06:00:00	Cubbon Park, Bangalore	0	ORG002
<input type="checkbox"/>				E22004	Health Drive	2022009	Health	2023-01-17	10:00:00	RV college Bangalore	0	ORG003
<input type="checkbox"/>				E22005	Swatch Barath	2022003	Environment	2023-08-13	07:00:00	Lalbagh park	0	ORG001

☐ Check all

|

With selected: Edit Copy Delete Export

Members

Showing rows 0 - 15 (16 total, Query took 0.0003 seconds.)

SELECT * FROM `members_415`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all

Number of rows: 25

Filter rows: Search this table

Sort by key: None

Extra options

	Member_ID	Name	Gender	DOB	Age	Blood_group	Address			
<input type="checkbox"/>	Edit	Copy	Delete	2022001	Anoushka Vemireddy	Female	1992-05-15	0	A+	ABC , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022002	Gautham Krithiwas	Male	1998-07-12	0	B-	DEF , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022003	Harikrishnan G	Male	1989-09-11	0	O+	GHI , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022004	Hitesh Singh	Male	1999-03-23	0	AB-	JKL , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022005	ANEESH K B	Male	2002-01-01	0	A-	MNO , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022006	AVANISH SHENOY	Male	2000-03-19	0	A+	PQR , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022007	B MONISH MOGER	Male	1994-10-04	0	B+	TUV , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022008	AYUSH SINHA	Male	2001-08-09	0	A+	WXY , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022009	Deepthi Bommisetty	Female	2003-09-17	0	B+	ZGY , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022010	Hansini	Female	1991-09-03	0	O-	MKS , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022011	G Roshni	Female	1995-02-14	0	AB-	POA , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022012	Chaitra	Female	1998-12-23	0	AB+	BUS , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022013	K Srinivasa Ankita	Female	1996-12-31	0	AB+	RGP , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022014	Pannuru Sidhvi	Female	2002-10-24	0	B+	XSP , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022015	Lia Jane Dsouza	Female	2003-11-03	0	A+	IAT , street Bangalore
<input type="checkbox"/>	Edit	Copy	Delete	2022016	Gade Vishnupriya Reddy	Female	1989-04-16	0	O+	ZTC , street Bangalore

Manager

Here the data entry is done using join and insert command

```
MariaDB [volcause_415]> insert into manager_415(Manager_ID,Manager_Name,Event_ID,Event_Name) select M.Member_ID as Manager_ID,M.Name
as Manager_Name ,
    → E.Event_ID as Event_ID ,E.Event_Name as Event_Name from
    → MEMBERS_415 as M join Event_415 as E where m.Member_ID = E.Manager_ID;
Query OK, 5 rows affected (0.010 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [volcause_415]>
```

✓ Showing rows 0 - 4 (5 total, Query took 0.0003 seconds.)

[SELECT * FROM `manager_415`](#)

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: | Filter rows: | Sort by key:

Extra options

			Manager_ID	Manager_Name	Event_ID	Event_Name	
<input type="checkbox"/>				2022003	Harikrishnan G	E22003	Plantation Drive
<input type="checkbox"/>				2022003	Harikrishnan G	E22005	Swatch Barath
<input type="checkbox"/>				2022007	B MONISH MOGER	E22001	Blood Donation
<input type="checkbox"/>				2022009	Deepthi Bommisetty	E22004	Health Drive
<input type="checkbox"/>				2022010	Hansini	E22002	English for all

↑ ☐ Check all | With selected: Edit Copy Delete Export

☐ Show all | Number of rows: | Filter rows: | Sort by key:

Volunteers

⚠️ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

✔️ Showing rows 0 - 24 (36 total, Query took 0.0003 seconds.)

```
SELECT * FROM `volunteers_415`
```

☐ Profiling [\[Edit inline \]](#) [\[Edit \]](#) [\[Explain SQL \]](#) [\[Create PHP code \]](#) [\[Refresh \]](#)

1 > >>

☐ Show all

Number of rows: 25

Filter rows:

Sort by key: None

Extra options

Event_ID	Member_ID
E22001	2022001
E22001	2022003
E22001	2022005
E22001	2022006
E22001	2022004
E22001	2022013
E22001	2022016
E22002	2022014
E22002	2022015
E22002	2022003
E22002	2022009
E22002	2022012
E22002	2022013
E22002	2022007
E22003	2022015
E22003	2022014
E22003	2022016
E22003	2022007
E22004	2022008
E22004	2022001
E22004	2022002

Join Queries

Manager and event details

The join query selects the Manager name from Member_415 using Manager_ID as primary key on the member_415 and get event details from the event table using event_id as the primary key on the event table

Query

```
select M.Member_ID as Manager_ID,M.Name as Manager_Name ,
E.Event_ID as Event_ID ,E.Event_Name as Event_Name from
MEMBERS_415 as M join Event_415 as E where m.Member_ID = E.Manager_ID;
```

```
MariaDB [volcause_415]> select M.member_id as Manager_ID,M.Name as Manager_name,E.event_ID as Event_ID,E.event_name as Event_Name fro
m Members_415 as M join Event_415 as E where m.Member_ID =E.manager_id;
+-----+-----+-----+-----+
| Manager_ID | Manager_name | Event_ID | Event_Name |
+-----+-----+-----+-----+
| 2022007 | B MONISH MOGER | E22001 | Blood Donation |
| 2022010 | Hansini | E22002 | English for all |
| 2022003 | Harikrishnan G | E22003 | Plantation Drive |
| 2022009 | Deepthi Bommisetty | E22004 | Health Drive |
| 2022003 | Harikrishnan G | E22005 | Swatch Barath |
+-----+-----+-----+-----+
5 rows in set (0.003 sec)
```

Member details for an event

This join statement uses member_id and event_id from volunteer_415 table and joins Member_415 to get the details of members who are taking part in the event , here E22001 is the event selected.

Query

```
select M.Member_ID as Member_ID,M.name as Name,M.gender as Gender from
MEMBERS_415 as M join Volunteers_415 as V where V.Event_ID = "E22001"
and M.Member_ID=V.Member_ID;
```

```
MariaDB [volcause_415]> select M.Member_ID as Member_ID,M.name as Name,M.gender as Gender from
→ MEMBERS_415 as M join Volunteers_415 as V where V.Event_ID = "E22001" and M.Member_ID=V.Member_ID;
+-----+-----+-----+
| Member_ID | Name | Gender |
+-----+-----+-----+
| 2022001 | Anoushka Vemireddy | Female |
| 2022003 | Harikrishnan G | Male |
| 2022005 | ANEESH K B | Male |
| 2022006 | AVANISH SHENOY | Male |
| 2022004 | Hitesh Singh | Male |
| 2022013 | K Srinivasa Ankita | Female |
| 2022016 | Gade Vishnupriya Reddy | Female |
+-----+-----+-----+
7 rows in set (0.005 sec)
```

Event details

This joins the event_415 and organisation_415 and gets the organisation details,manager details from member_415 with respect to the event in the consideration .

Query

```
select E.event_name as Event_Name ,E.event_type as Event_Type
,E.event_date as Date ,M.Name as Manager_Name,
O.Org_Name as Organization from Event_415 as E join MEMBERS_415 as M On
E.Manager_ID = M.Member_ID Join
Organization_415 as O on E.Org_ID = O.Org_ID;
```

```
MariaDB [volcause_415]> select E.event_name as Event_Name ,E.event_type as Event_Type ,E.event_date as Date ,M.Name as Manager_Name,
→ O.Org_Name as Organization from Event_415 as E join MEMBERS_415 as M On E.Manager_ID = M.Member_ID Join
→ Organization_415 as O on E.Org_ID = O.Org_ID;
```

Event_Name	Event_Type	Date	Manager_Name	Organization
Blood Donation	Health	2022-09-13	B MONISH MOGER	JCI
English for all	Education	2023-05-10	Hansini	SSVVEY
Plantation Drive	Environment	2022-09-13	Harikrishnan G	Lions
Health Drive	Health	2023-01-17	Deepthi Bommisetty	RED CROSS
Swatch Barath	Environment	2023-08-13	Harikrishnan G	Rotary

```
5 rows in set (0.001 sec)
```

Taking part in nothing

This join selects those members who have not taken part in any event but are part of the organisation joins member_415 and volunteer_415 table

Query

```
select M.Member_ID as Member_ID,M.name as Name,M.gender as Gender from
MEMBERS_415 as M where not exists (select * from Volunteers_415 as V
where V.Member_ID=M.Member_ID);
```

```
MariaDB [volcause_415]> select M.Member_ID as Member_ID,M.name as Name,M.gender as Gender from
→ MEMBERS_415 as M where not exists (select * from Volunteers_415 as V where V.Member_ID=M.Member_ID);
```

Member_ID	Name	Gender
2022011	G Roshni	Female

```
1 row in set (0.001 sec)
```

Aggregation Functions

Number of volunteers per event

Enumerates the count of volunteers per event using the volunteer_415 tables.

Query

```
select E.Event_Name as Event_Name, count(V.Member_ID) as  
Number_of_Volunteers  
from Event_415 as E join Volunteers_415 as V  
on E.Event_ID = V.Event_ID group by(V.Event_ID);
```

```
MariaDB [volcause_415]> select E.Event_Name as Event_Name, count(V.Member_ID) as Number_of_Volunteers  
→ from  
→ Event_415 as E join Volunteers_415 as V on E.Event_ID = V.Event_ID group by(V.Event_ID);  
+-----+-----+  
| Event_Name | Number_of_Volunteers |  
+-----+-----+  
| Blood Donation | 7 |  
| English for all | 7 |  
| Plantation Drive | 4 |  
| Health Drive | 5 |  
| Swatch Barath | 12 |  
+-----+-----+  
5 rows in set (0.014 sec)
```

Average age of Member

The average age of the members of the organisation

Query

```
select avg(age) as Average_Age from Members_415;
```

```
MariaDB [volcause_415]> select avg(age) as Average_Age from Members_415;  
+-----+  
| Average_Age |  
+-----+  
| 24.8750 |  
+-----+  
1 row in set (0.014 sec)
```

Minimum Volunteer Count

The minimum number of volunteer count in the event table.

Query

```
select min(Volunteer_count) as Minimum_Number_Volunteers from Event_415;
```

```
MariaDB [volcause_415]> select min(Volunteer_count) as Minimum_Number_Volunteers from Event_415;
+-----+
| Minimum_Number_Volunteers |
+-----+
| 4 |
+-----+
1 row in set (0.006 sec)
```

Maximum age of the Members

Maximum age of the members in the member table.

Query

```
select max(age) as Maximum_Age from Members_415;
```

```
MariaDB [volcause_415]> select max(age) as Maximum_Age from Members_415;
+-----+
| Maximum_Age |
+-----+
| 33 |
+-----+
1 row in set (0.001 sec)
```

Number of events handled by every manager

The number of events that are handled by individual managers

Query

```
select M.Manager_Name as Manager_Name, count(M.Event_ID) as Events
from Manager_415 as M group by (Manager_ID);
```

```
MariaDB [volcause_415]> select M.Manager_Name as Manager_Name, count(M.Event_ID) as Events from Manager_415 as M group by (Manager_ID);
+-----+-----+
| Manager_Name | Events |
+-----+-----+
| Harikrishnan G | 2 |
| B MONISH MOGER | 1 |
| Deepthi Bommisetty | 1 |
| Hansini | 1 |
+-----+-----+
4 rows in set (0.005 sec)
```


Number of Events that a volunteer participates in.

Enumerates the number of events that volunteer has signed up for

Query

```
select M.Member_Id as Member_ID,M.name as Name,count(E.event_ID) as
Number_of_Events
from Members_415 as M left join Volunteers_415 as E on m.Member_ID =
E.Member_ID group by (M.Member_ID);
```

```
MariaDB [volcause_415]> select M.Member_Id as Member_ID,M.name as Name,count(E.event_ID) as Number_of_Events from Members_415 as M le
ft join Volunteers_415 as E on m.Member_ID = E.Member_ID group by (M.Member_ID);
+-----+-----+-----+
| Member_ID | Name                | Number_of_Events |
+-----+-----+-----+
| 2022001 | Anoushka Vemireddy  | 3 |
| 2022002 | Gautham Krithiwas   | 2 |
| 2022003 | Harikrishnan G      | 3 |
| 2022004 | Hitesh Singh        | 2 |
| 2022005 | ANEESH K B          | 3 |
| 2022006 | AVANISH SHENOY      | 2 |
| 2022007 | B MONISH MOGER       | 3 |
| 2022008 | AYUSH SINHA         | 2 |
| 2022009 | Deepthi Bommisetty  | 2 |
| 2022010 | Hansini              | 1 |
| 2022011 | G Roshni            | 0 |
| 2022012 | Chaitra              | 2 |
| 2022013 | K Srinivasa Ankita  | 3 |
| 2022014 | Pannuru Sidhvi      | 2 |
| 2022015 | Lia Jane Dsouza     | 2 |
| 2022016 | Gade Vishnupriya Reddy | 3 |
+-----+-----+-----+
16 rows in set (0.001 sec)
```

Number of Events per Day

Enumerates the number of Events every day

Query

```
select E.event_date as Date , count(e.event_id) as Number_of_events
from Event_415 as E group by (e.event_date);
```

```
MariaDB [volcause_415]> select E.event_date as Date , count(e.event_id) as Number_of_events from Event_415 as E group by (e.event_dat
e);
+-----+-----+
| Date       | Number_of_events |
+-----+-----+
| 2022-09-13 | 2 |
| 2023-01-17 | 1 |
| 2023-05-10 | 1 |
| 2023-08-13 | 1 |
+-----+-----+
4 rows in set (0.001 sec)

MariaDB [volcause_415]>
```

Set operation

Union

Union of Organisations and event data

Query

```
select Org_Manager,Org_Name from ORGANIZATION_415
Union
select Event_Name,Event_Type from Event_415;
```

```
MariaDB [volcause_415]> select Org_Manager,Org_Name from ORGANIZATION_415
→ Union
→ select Event_Name,Event_Type from Event_415;
+-----+-----+
| Org_Manager | Org_Name |
+-----+-----+
| Nisha Murthy D | Rotary |
| Shreyas A Katti | Lions |
| Shreyas S Desai | RED CROSS |
| VINAY KUMAR S | JCI |
| K S Bharadwaj | SSVVEY |
| Blood Donation | Health |
| English for all | Education |
| Plantation Drive | Environment |
| Health Drive | Health |
| Swatch Barath | Environment |
+-----+-----+
10 rows in set (0.008 sec)

MariaDB [volcause_415]>
```

Union all

Here we Union all the organization and the event Type

Query

```
select Org_ID,Org_Manager,Org_Name from ORGANIZATION_415
Union all
select Event_ID,Event_Name,Event_Type from Event_415;
```

```
MariaDB [volcause_415]> select Org_ID,Org_Manager,Org_Name from ORGANIZATION_415
→ Union all
→ select Event_ID,Event_Name,Event_Type from Event_415;
+-----+-----+-----+
| Org_ID | Org_Manager | Org_Name |
+-----+-----+-----+
| ORG001 | Nisha Murthy D | Rotary |
| ORG002 | Shreyas A Katti | Lions |
| ORG003 | Shreyas S Desai | RED CROSS |
| ORG004 | VINAY KUMAR S | JCI |
| ORG005 | K S Bharadwaj | SSVVEY |
| E22001 | Blood Donation | Health |
| E22002 | English for all | Education |
| E22003 | Plantation Drive | Environment |
| E22004 | Health Drive | Health |
| E22005 | Swatch Barath | Environment |
+-----+-----+-----+
10 rows in set (0.001 sec)
```

Except

Selects all the members who are not Managers . This uses set difference method

Query

```
select Member_ID from MEMBERS_415
except
select Manager_ID from Manager_415;
```

```
MariaDB [volcause_415]> select Member_ID from MEMBERS_415
→ except
→ select Manager_ID from Manager_415;
```

Member_ID
2022001
2022002
2022004
2022005
2022006
2022008
2022011
2022012
2022013
2022014
2022015
2022016

12 rows in set (0.015 sec)

```
MariaDB [volcause_415]>
```

Intersect

Intersect on the volunteer table and member table gives us the members who have volunteers in atleast one event

Query

```
select distinct Member_ID from Volunteers_415
intersect
select Member_ID from MEMBERS_415;
```

Database changed

```
MariaDB [volcause_415]> select distinct Member_ID from Volunteers_415
→ intersect
→ select Member_ID from MEMBERS_415;
```

```
+-----+
| Member_ID |
+-----+
| 2022001 |
| 2022002 |
| 2022003 |
| 2022004 |
| 2022005 |
| 2022006 |
| 2022007 |
| 2022008 |
| 2022009 |
| 2022010 |
| 2022012 |
| 2022013 |
| 2022014 |
| 2022015 |
| 2022016 |
+-----+
```

```
15 rows in set (0.215 sec)
```

Functions and Procedures

Age Calculation

Age is not present in the table during the insertion of data into the table. The age is calculated using the DOB value in the table.

Query

```
DELIMITER $$
CREATE PROCEDURE getAge()
BEGIN
UPDATE Members_415 SET Age= DATE_FORMAT(FROM_DAYS(DATEDIFF(NOW(), dob)),
'%Y') + 0;
END;$$
DELIMITER ;
```

MariaDB [volcause_415]> select * from members_415;

Member_ID	Name	Gender	DOB	Age	Blood_group	Address
2022001	Anoushka Vemireddy	Female	1992-05-15	30	A+	ABC , street Bangalore
2022002	Gautham Krithiwas	Male	1998-07-12	24	B-	DEF , street Bangalore
2022003	Harikrishnan G	Male	1989-09-11	33	O+	GHI , street Bangalore
2022004	Hitash Singh	Male	1999-03-23	23	AB-	JKL , street Bangalore
2022005	ANEESH K B	Male	2002-01-01	20	A-	MNO , street Bangalore
2022006	AVANISH SHENOY	Male	2000-03-19	22	A+	PQR , street Bangalore
2022007	B MONISH MOGER	Male	1994-10-04	28	B+	TUV , street Bangalore
2022008	AYUSH SINHA	Male	2001-08-09	21	A+	WXY , street Bangalore
2022009	Deepthi Bommisetty	Female	2003-09-17	19	B+	ZGY , street Bangalore
2022010	Hansini	Female	1991-09-03	31	O-	MKS , street Bangalore
2022011	G Roshni	Female	1995-02-14	27	AB-	POA , street Bangalore
2022012	Chaitra	Female	1998-12-23	23	AB+	BUS , street Bangalore
2022013	K Srinivasa Ankita	Female	1996-12-31	25	AB+	RGP , street Bangalore
2022014	Pannuru Sidhvi	Female	2002-10-24	20	B+	XSP , street Bangalore
2022015	Lia Jane Dsouza	Female	2003-11-03	19	A+	IAT , street Bangalore
2022016	Gade Vishnupriya Reddy	Female	1989-04-16	33	O+	ZTC , street Bangalore

16 rows in set (0.001 sec)

Number of Volunteers in the Event

The number of volunteers can change overtime hence whenever this procedure is called the value in the volunteer table updates .This calculates the count of volunteers by grouping using Event_ID and updates the Event table .

Query

```
DELIMITER $$
CREATE PROCEDURE setVol()
BEGIN
DROP table if exists T2;
Create Table T2 as (select Event_415.event_id as
EID,count(Volunteers_415.Member_ID)
as countVal from Event_415 join Volunteers_415 on Event_415.Event_ID =
Volunteers_415.Event_ID
group by(Volunteers_415.Event_ID));
UPDATE Event_415 join T2 on Event_415.Event_ID = T2.EID
SET Event_415.Volunteer_Count = T2.countval ;
Drop table T2;
END;$$
DELIMITER ;
```

Before

```
MariaDB [volcause_415]> select * from Event_415;
+-----+
| Event_ID | Event_Name      | Manager_ID | Event_Type | Event_Date | Event_Time | Venue                                | Volunteer_count |
| Org_ID  |                 |            |            |            |            |                                     |                 |
+-----+
| E22001  | Blood Donation  | 2022007   | Health     | 2022-09-13 | 08:00:00   | PES University Bangalore           | 0               |
| ORG004  |                 |            |            |            |            |                                     |                 |
| E22002  | English for all | 2022010   | Education  | 2023-05-10 | 09:30:00   | Government School Banashankari    | 0               |
| ORG005  |                 |            |            |            |            |                                     |                 |
| E22003  | Plantation Drive | 2022003   | Environment | 2022-09-13 | 06:00:00   | Cubbon Park, Bangalore            | 0               |
| ORG002  |                 |            |            |            |            |                                     |                 |
| E22004  | Health Drive    | 2022009   | Health     | 2023-01-17 | 10:00:00   | RV college Bangalore              | 0               |
| ORG003  |                 |            |            |            |            |                                     |                 |
| E22005  | Swatch Barath   | 2022003   | Environment | 2023-08-13 | 07:00:00   | Lalbagh park                      | 0               |
| ORG001  |                 |            |            |            |            |                                     |                 |
+-----+
5 rows in set (0.014 sec)
```

After

```
MariaDB [volcause_415]> DELIMITER ;
MariaDB [volcause_415]> call setVol();
Query OK, 5 rows affected (0.040 sec)

MariaDB [volcause_415]> select * event_415;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'event_415' at line 1
MariaDB [volcause_415]> select * from event_415;
+-----+-----+-----+-----+-----+-----+-----+-----+
| Event_ID | Event_Name      | Manager_ID | Event_Type | Event_Date | Event_Time | Venue                                | Volunteer_count |
| Org_ID |
+-----+-----+-----+-----+-----+-----+-----+-----+
| E22001 | Blood Donation | 2022007 | Health     | 2022-09-13 | 08:00:00 | PES University Bangalore            | 7               |
| ORG004 |
| E22002 | English for all | 2022010 | Education  | 2023-05-10 | 09:30:00 | Government School Banashankari     | 7               |
| ORG005 |
| E22003 | Plantation Drive | 2022003 | Environment | 2022-09-13 | 06:00:00 | Cubbon Park, Bangalore             | 4               |
| ORG002 |
| E22004 | Health Drive    | 2022009 | Health     | 2023-01-17 | 10:00:00 | RV college Bangalore               | 5               |
| ORG003 |
| E22005 | Swatch Barath   | 2022003 | Environment | 2023-08-13 | 07:00:00 | Lalbagh park                       | 12              |
| ORG001 |
+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.001 sec)

MariaDB [volcause_415]>
```

Functions

Number of daysto the start of the event from the present Day

Uses the event date from the event table and calculates the number of days to start of the event from the present day

Query

```
DELIMITER $$  
  
create function days_till_event(event_date date)  
returns int  
deterministic  
BEGIN  
  
declare date2 date;  
select current_date() into date2;  
return DATEDIFF(event_date,date2);  
end $$  
  
DELIMITER ;
```

```
MariaDB [volcause_415] > select event_name as Name,days_till_event(event_date) as Days_Till_Event from event_415;  
+-----+-----+  
| Name          | Days_Till_Event |  
+-----+-----+  
| Blood Donation | -77 |  
| English for all | 162 |  
| Plantation Drive | -77 |  
| Health Drive    | 49 |  
| Swatch Barath   | 257 |  
+-----+-----+  
5 rows in set (0.005 sec)  
  
MariaDB [volcause_415] >
```


Triggers and Cursors

Age Restriction

Sets the age restriction to minimum 18 years and maximum of 65 years while entering the data .
If the restriction is violated the insertion is cancelled and error message is displayed

Query

```
DELIMITER $$
create trigger age_check
before insert on Members_415 for each row
BEGIN
if (DATE_FORMAT(FROM_DAYS(DATEDIFF(NOW(), new.dob)), '%Y') < 18) then
signal sqlstate '45000' set message_text = 'Age is less than 18 Years ';
end if;
if (DATE_FORMAT(FROM_DAYS(DATEDIFF(NOW(), new.dob)), '%Y') > 65) then
signal sqlstate '45000' set message_text = 'Age is greater than 65 ';
end if;
end $$
DELIMITER ;
```

Minimum age restriction

```
MariaDB [volcause_415]> insert into members_415 values (2022018,"Gopal Krishna","Male","2007-09-09",0,"G")
ERROR 1644 (45000): Age is less than 18 Years
MariaDB [volcause_415]>
```

Maximum age restriction

```
MariaDB [volcause_415]> insert into members_415 values (2022018,"Gopal Krishna","Male","1907-09-09",0,"G")
ERROR 1644 (45000): Age is greater than 65
MariaDB [volcause_415]>
```

Prevention of Registration for multiple events on the same day

This trigger prevents the registration of members into different events on the same event day. When an attempt is made to register to multiple events on the same day warning is displayed

Query

```
DELIMITER $$
create trigger clash_check
before insert on Volunteers_415 for each row
BEGIN
if(exists(select 1 from Event_415 E1,Event_415 E2 join volunteers_415 as V
where v.member_id = new.member_id and v.event_id != new.event_id
and v.event_id = E1.event_id and E2.event_id = new.event_id and
E1.event_date = E2.event_date )) then
signal sqlstate '45000' set message_text ='Multiple Event signup on the
same day is not allowed ';
end if;
end $$
DELIMITER ;
```

```
MariaDB [volcause_415]> DELIMITER ;
MariaDB [volcause_415]> insert into volunteers_415 values ("E22003",2022001);
ERROR 1644 (45000): Multiple Event signup on the same day is not allowed
MariaDB [volcause_415]>
```

Cursor

Compiles data from multiple tables and creates backup of the event and all associated details of the event into a backup event details table.

Query

```
DELIMITER $$
create PROCEDURE event_details()
BEGIN
declare done int default 0;
declare Event_Name varchar(255);
declare Event_Type varchar(255);
declare Manager_Name varchar(255);
declare Organization varchar(255);
declare Event_date date;
declare cur Cursor for (select E.event_name as Event_Name ,E.event_type as
Event_Type ,E.event_date as Date ,M.Name as Manager_Name,
O.Org_Name as Organization from Event_415 as E join MEMBERS_415 as M On
E.Manager_ID = M.Member_ID Join
Organization_415 as O on E.Org_ID = O.Org_ID);
Declare CONTINUE HANDLER FOR NOT FOUND SET done = 1;
call createEventDet();
OPEN cur;
label:LOOP

FETCH cur INTO Event_Name,Event_Type,Event_Date,Manager_Name,Organization;
INSERT into Event_details_415
value(Event_Name,Event_Type,Event_Date,Manager_Name,Organization);
IF done =1 Then leave label;
end if;
end loop;
close cur;
select * from Event_Details_415;

end $$
DELIMITER ;
```

Cursor Output

```
MariaDB [volcause_415]> CREATE TABLE Event_Details_415(
```

```
→ Event_Name varchar(255),
→ Event_Type varchar(255),
→ Event_Date date,
→ Manager_Name varchar(255),
→ Organization varchar(255)
→ );
```

```
Query OK, 0 rows affected (0.034 sec)
```

```
MariaDB [volcause_415]> call event_details();
```

Event_Name	Event_Type	Event_Date	Manager_Name	Organization
Blood Donation	Health	2022-09-13	B MONISH MOGER	JCI
English for all	Education	2023-05-10	Hansini	SSVVEY
Plantation Drive	Environment	2022-09-13	Harikrishnan G	Lions
Health Drive	Health	2023-01-17	Deepthi Bommisetty	RED CROSS
Swatch Barath	Environment	2023-08-13	Harikrishnan G	Rotary
Swatch Barath	Environment	2023-08-13	Harikrishnan G	Rotary

```
6 rows in set (0.013 sec)
```

```
Query OK, 6 rows affected (0.036 sec)
```

```
MariaDB [volcause_415]>
```

Developing a Frontend

Registering members into the Member table

Menu
Register

VolCause

Enter details:

Member ID
0.00

DOB(in YYYY/MM/DD)

Name

Blood Group
A+

Gender
☒ Male
☐ Female

Address

ADD Members

Made with Streamlit

Menu
Register

VolCause

Enter details:

Member ID
2022018.00

DOB(in YYYY/MM/DD)
2002/10/04

Name
Shrujan

Blood Group
O+

Gender
☒ Male
☐ Female

Address
MNOT Street Bangalore

ADD Members

Successfully added Member :Shrujan

Made with Streamlit

View Event table and volunteer count pir chart

Menu

View

VolCause

View Member Details

All Events

Event_ID	Event_Name	Manager_ID	Event_Type	Event_Date	Venue	
0	E22001	Blood Donation	2022007	Health	2022-09-13	PES University Bangalore
1	E22002	English for all	2022010	Education	2023-05-10	Government School Banashank
2	E22003	Plantation Drive	2022003	Environment	2022-09-13	Cubbon Park, Bangalore
3	E22004	Health Drive	2022009	Health	2023-01-17	RV college Bangalore
4	E22005	Swatch Barath	2022003	Environment	2023-08-13	Lalbagh park

Event Details

Volunteer_Count	Event_Name	
0	7	Blood Donation
1	7	English for all
2	4	Plantation Drive
3	5	Health Drive
4	12	Swatch Barath

Menu

View

Event Details

Volunteer_Count	Event_Name	
0	7	Blood Donation
1	7	English for all
2	4	Plantation Drive
3	5	Health Drive
4	12	Swatch Barath

Event_Name	Volunteer_Count	Percentage
Swatch Barath	12	24.3%
Blood Donation	7	20%
English for all	7	20%
Health Drive	5	14.3%
Plantation Drive	4	11.4%

Update member details

Menu

Edit

VolCause

Update Member Details

Current Data

	Member_ID	Name	Gender	DOB	Age	Blood Group	Address
7	2022008	AYUSH SINHA	Male	2001-08-09	21	A+	WXY , street Bangalore
8	2022009	Deepthi Bommitetty	Female	2003-09-17	19	B+	ZGY , street Bangalore
9	2022010	Hansini	Female	1991-09-03	31	O-	MKS , street Bangalore
10	2022011	G Roshni	Female	1995-02-14	27	AB-	POA , street Bangalore
11	2022012	Chaitra	Female	1998-12-23	23	AB+	BUS , street Bangalore
12	2022013	K Srinvasa Ankita	Female	1996-12-31	25	AB+	RGP , street Bangalore
13	2022014	Pannuru Sidhvi	Female	2002-10-24	20	B+	XSP , street Bangalore
14	2022015	Lia Jane Dosouza	Female	2003-11-03	19	A+	IAT , street Bangalore
15	2022016	Gade Vishnupriya Redk	Female	1989-04-16	33	O+	ZTC , street Bangalore
16	2022018	Shrujan	Male	2002-10-04	0	O+	MNOT Street Bangalori

Members to update

Shrujan

Member ID

2022018

DOB

2002-10-04

Menu

Edit

13	2022014	Pannuru Sidhvi	Female	2002-10-24	20	B+	XSP , street Bangalore
14	2022015	Lia Jane Dosouza	Female	2003-11-03	19	A+	IAT , street Bangalore
15	2022016	Gade Vishnupriya Redk	Female	1989-04-16	33	O+	ZTC , street Bangalore
16	2022018	Shrujan	Male	2002-10-04	0	O+	MNOT Street Bangalori

Members to update

Shrujan

Member ID

2022016

DOB

2002-10-04

Value must be greater than or equal to 2022018.

Blood Group

A+

Gender

☒ Male

☐ Female

Address

MNOT Street Bangalore

Update Members

Updated data

Made with Streamlit

Menu

Edit

15	2022016	Gade Vishnupriya Redi	Female	1989-04-16	33	O+	ZTC , street Bangalore
16	2022018	Shrujan	Male	2002-10-04	0	O+	MNOT Street Bangalore

Members to update

Shrujan

Member ID

2022018

DOB

2002-10-04

Name

Shrujan Dev

Blood Group

O+

Gender

Male

Female

Address

MNOT Street Bangalore ,778811

Update Members

Successfully Updated Member :Shrujan

Updated data

Menu

Edit

Update Members

Successfully Updated Member :Shrujan

Updated data

	Member_ID	Name	Gender	DOB	Age	Blood Group	Address
7	2022008	AYUSH SINHA	Male	2001-08-09	21	A+	WKY , street Bangalore
8	2022009	Deepthi Bommisetty	Female	2003-09-17	19	B+	ZGV , street Bangalore
9	2022010	Hansini	Female	1991-09-03	31	O-	MKS , street Bangalore
10	2022011	G Roshni	Female	1995-02-14	27	AB-	POA , street Bangalore
11	2022012	Chaitra	Female	1998-12-23	23	AB+	BUS , street Bangalore
12	2022013	K Srinivasa Ankita	Female	1996-12-31	25	AB+	RGP , street Bangalore
13	2022014	Pannuru Sidhvi	Female	2002-10-24	20	B+	XSP , street Bangalore
14	2022015	Lia Jane Dsouza	Female	2003-11-03	19	A+	IAT , street Bangalore
15	2022016	Gade Vishnupriya Redi	Female	1989-04-16	33	O+	ZTC , street Bangalore
16	2022018	Shrujan Dev	Male	2002-10-04	0	O+	MNOT Street Bangalore

Made with Streamlit

Deleting member details.

Menu

Remove

VolCause

Delete Member Details

Current Data

	Member_ID	Name	Gender	DOB	Age	Blood Group	Address
7	2022008	AYUSH SINHA	Male	2001-08-09	21	A+	WXY , street Bangalore
8	2022009	Deepthi Bommisetty	Female	2003-09-17	19	B+	ZGV , street Bangalore
9	2022010	Hansini	Female	1991-09-03	31	O-	MKS , street Bangalore
10	2022011	G Roshni	Female	1995-02-14	27	AB-	POA , street Bangalore
11	2022012	Chaitra	Female	1998-12-23	23	AB+	BUS , street Bangalore
12	2022013	K Srinivasa Ankita	Female	1996-12-31	25	AB+	RGP , street Bangalore
13	2022014	Pannuru Sidhvi	Female	2002-10-24	20	B+	XSP , street Bangalore
14	2022015	Lia Jane Dosouza	Female	2003-11-03	19	A+	IAT , street Bangalore
15	2022016	Gade Vishnupriya Redk	Female	1989-04-16	33	O+	ZTC , street Bangalore
16	2022018	Shrujan Dev	Male	2002-10-04	0	O+	MINOT Street Bangalore

Task to Delete

Anoushka Vemireddy

Do you want to delete Anoushka Vemireddy

Menu

Remove

Task to Delete

Shrujan Dev

Do you want to delete Shrujan Dev

Delete Member

Member has been deleted successfully

Updated Data

	Member_ID	Name	Gender	DOB	Age	Blood Group	Address
6	2022007	B MONISH MOGER	Male	1994-10-04	28	B+	TUV , street Bangal
7	2022008	AYUSH SINHA	Male	2001-08-09	21	A+	WXY , street Bangal
8	2022009	Deepthi Bommisetty	Female	2003-09-17	19	B+	ZGV , street Bangal
9	2022010	Hansini	Female	1991-09-03	31	O-	MKS , street Bangal
10	2022011	G Roshni	Female	1995-02-14	27	AB-	POA , street Bangal
11	2022012	Chaitra	Female	1998-12-23	23	AB+	BUS , street Bangal
12	2022013	K Srinivasa Ankita	Female	1996-12-31	25	AB+	RGP , street Bangal
13	2022014	Pannuru Sidhvi	Female	2002-10-24	20	B+	XSP , street Bangal
14	2022015	Lia Jane Dosouza	Female	2003-11-03	19	A+	IAT , street Bangaloi
15	2022016	Gade Vishnupriya Reddy	Female	1989-04-16	33	O+	ZTC , street Bangal

Custom Queries

Menu

Custom

VolCause

Custom SQL Query

Enter Query

Submit Query

Menu

Custom

VolCause

Custom SQL Query

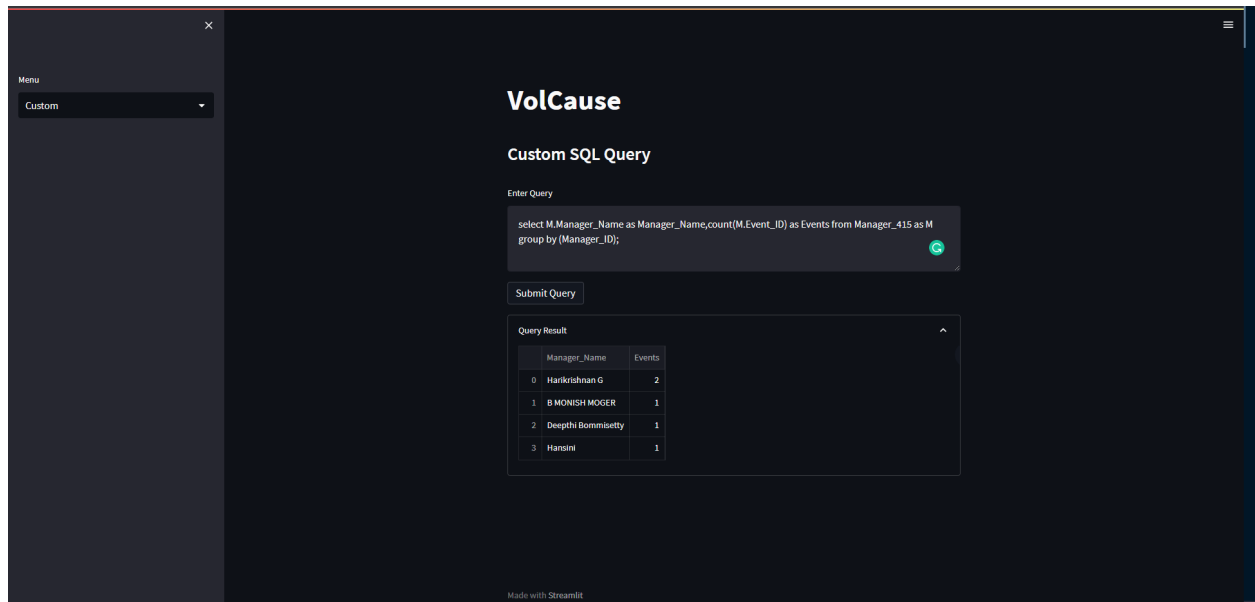
Enter Query

SELECT E.Event_Name as Event_Name, E.Event_Type as Event_Type, E.Event_Date as Date, M.Name as Manager_Name,
O.Org_Name as Organization from Event_415 as E join MEMBERS_415 as M On E.Manager_ID =
M.Member_ID Join
Organization_415 as O on E.Org_ID = O.Org_ID;

Submit Query

Query Result

	Event_Name	Event_Type	Date	Manager_Name	Organization
0	Blood Donation	Health	2022-09-13	B MONISH MOGER	JCI
1	English for all	Education	2023-05-10	Hansini	SOWEY
2	Plantation Drive	Environment	2022-09-13	Harikrishnan G	Lions
3	Health Drive	Health	2023-01-17	Deepthi Bommisetty	RED CROSS
4	Swatch Barath	Environment	2023-08-13	Harikrishnan G	Rotary



Prevents dropping of table from custom query section.

