Project: Event Management System using PostgreSQL

1. Database creation

```
CREATE DATABASE "EventsManagement"
WITH
OWNER = postgres
ENCODING = 'UTF8'
LC_COLLATE = 'English_United States.1252'
LC_CTYPE = 'English_United States.1252'
TABLESPACE = pg_default
CONNECTION LIMIT = -1
IS_TEMPLATE = False;
```

a. Table Creation

Events	Attendees
CREATE TABLE Events (Event_Id INT, Event_Name VARCHAR(30), Event_Date DATE, Event_Location VARCHAR(100), Event_Description VARCHAR(200), PRIMARY KEY (Event_Id));	CREATE TABLE Attendees (Attendee_Id INT, Attendee_Name VARCHAR(30), Attendee_Phone NUMERIC, Attendee_Email VARCHAR(30), Attendee_City VARCHAR(20), PRIMARY KEY (Attendee_Id));

Registrations
CREATE TABLE Registrations (Registration_Id INT, Event_Id INT, Attendee_Id INT, Registration_Date DATE, Registration_Amount NUMERIC, PRIMARY KEY (Registration_Id), FOREIGN KEY (Event_Id) REFERENCES Events(Event_Id), FOREIGN KEY (Attendee_Id) REFERENCES Attendees(Attendee_Id));

2. Data Creation

```
INSERT INTO Events
(Event_Id, Event_Name, Event_Date, Event_Location, Event_Description) VALUES
('101', 'Yuvan Shankar', '2024-03-03', 'Chennai', 'Music Show'),
('102', 'Story Teller', '2023-11-19', 'Bangalore', 'Exhibition'),
('103', 'Flimfare Awards', '2023-11-12', 'Delhi', 'Movie'),
('104', 'I was not Ready Da!', '2024-01-06', 'Bangalore', 'Comedy'),
('105', 'GOAT - Tamil', '2024-02-13', 'Kolkata', 'Movie');
```

SELECT * FROM Events;

	event_id [PK] integer	event_name character varying (30)	event_date date	event_location character varying (100)	event_description character varying (200)
1	101	Yuvan Shankar	2024-03-03	Chennai	Music Show
2	102	Story Teller	2023-11-19	Bangalore	Exhibition
3	103	Flimfare Awards	2023-11-12	Delhi	Movie
4	104	I was not Ready Da!	2024-01-06	Bangalore	Comedy
5	105	GOAT - Tamil	2024-02-13	Kolkata	Movie

INSERT INTO Attendees (Attendee_Id, Attendee_Name, Attendee_Phone, Attendee_Email, Attendee_City) VALUES
('1001', 'Nirmal', '9999999991', 'nirmal@gmail.com', 'Delhi'),
('1002', 'Gokul', '9999999992', 'gokul@gmail.com', 'Delhi'),
('1003', 'Prithivi', '9999999993', 'prithivi@gmail.com', 'Mumbai'),
('1004', 'Vijay', '9999999994', 'vijay@gmail.com', 'Uttar Pradesh'),
('1005', 'Abhi', '9999999995', 'abhi@gmail.com', 'Mumbai'),
('1006', 'Maddy', '9999999996', 'maddy@gmail.com', 'Goa'),
('1007', 'Krishna', '9999999997', 'krishna@gmail.com', 'Uttrakhand'),
('1008', 'Abinesh', '9999999998', 'abinesh@gmail.com', 'Delhi');

SELECT * FROM Attendees;

	attendee_id [PK] integer	attendee_name character varying (30)	attendee_phone numeric	attendee_email character varying (30)	attendee_city character varying (20)
1	1001	Nirmal	9999999991	nirmal@gmail.com	Delhi
2	1002	Gokul	9999999992	gokul@gmail.com	Delhi
3	1003	Prithivi	9999999993	prithivi@gmail.com	Mumbai
4	1004	Vijay	9999999994	vijay@gmail.com	Uttar Pradesh
5	1005	Abhi	9999999995	abhi@gmail.com	Mumbai
6	1006	Maddy	9999999996	maddy@gmail.com	Goa
7	1007	Krishna	9999999997	krishna@gmail.com	Uttrakhand
8	1008	Abinesh	9999999998	abinesh@gmail.com	Delhi

INSERT INTO Registrations
(Registration_Id, Event_Id, Attendee_Id, Registration_Date, Registration_Amount) VALUES
('10001', '101', '1001', '2023-10-12', '7500'),
('10002', '102', '1003', '2023-09-25', '1000'),
('10003', '103', '1002', '2023-10-29', '2000'),
('10004', '104', '1004', '2023-10-20', '500'),
('10005', '101', '1005', '2023-09-10', '7500'),
('10006', '103', '1008', '2023-09-15', '2000'),
('10007', '101', '1007', '2023-11-01', '7500'),
('10008', '102', '1006', '2023-11-05', '1000');

SELECT * FROM Registrations;

	registration_id [PK] integer	event_id integer	attendee_id integer	registration_date date	registration_amount numeric
1	10001	101	1001	2023-10-12	7500
2	10002	102	1003	2023-09-25	1000
3	10003	103	1002	2023-10-29	2000
4	10004	104	1004	2023-10-20	500
5	10005	101	1005	2023-09-10	7500
6	10006	103	1008	2023-09-15	2000
7	10007	101	1007	2023-11-01	7500
8	10008	102	1006	2023-11-05	1000

3) Manage Event Details

a) Insert New event

Insert INTO Events (Event_Id, Event_Name, Event_Date, Event_Location, Event_Description) VALUES ('106', 'Unheard Diaries', '2023-10-29', 'Delhi', 'Storytelling');

b) Update event's information

UPDATE Events
SET Event_Location = 'Mumbai' WHERE Event_Id = '104';

c) Deleting an event

DELETE FROM Events WHERE Event_Id = '105';

4) Manage Track attendees and handle events

a) Insert new attendee

INSERT INTO Attendees (Attendee_Id, Attendee_Name, Attendee_Phone, Attendee_Email, Attendee_City) VALUES ('1009', 'Krishna', '9999999999', 'Krishna@gmail.com', 'Tamil Nadu');

b) Register attendee

INSERT INTO Registrations
(Registration_Id, Event_Id, Attendee_Id, Registration_Date, Registration_Amount)
VALUES ('10009', '101', '1009', '2023-11-11', '7500');

5) Retrieve event information, generate attendee list, Calculate event attendee statistics

WITH Event1 AS(
SELECT E.Event_id, E.event_name, E.event_date, E.event_location,
SUM(R.registration_amount) OVER(PARTITION by E.event_id) AS Amountgenperevent
FROM Events E JOIN Registrations R ON E.event_id = R.event_id
JOIN Attendees A ON A.attendee_id = R.attendee_id)
SELECT Event_id, event_name, event_location, Amountgenperevent
FROM Event1
GROUP BY 1,2,3,4
ORDER BY Amountgenperevent DESC;

	event_id [PK] integer	event_name character varying (30)	event_location character varying (100)	amountgenperevent numeric
1	101	Yuvan Shankar	Chennai	30000
2	103	Flimfare Awards	Delhi	4000
3	102	Story Teller	Bangalore	2000
4	104	I was not Ready Da!	Bangalore	500