Queries

1) Find all the volunteers in the rescue teams that are currently active and specialize in Medical Aid.

```
disaster=# SELECT DISTINCT v.volunteer_id, v.name
disaster-#  FROM volunteer as v ,rescue_team as r, volunteer_rescue_team as vr
disaster-#  WHERE r.status='Active' and v.volunteer_id=vr.volunteer_id and vr.team_id=r.team_id
disaster-# ORDER by v.volunteer_id;
 volunteer_id |       name
--------------+------------------
            1 | Rajesh Kumar
            2 | Anita Sharma
            3 | Vikram Singh
            5 | Amit Gupta
            7 | Arjun Patel
            8 | Sunita Joshi
           10 | Neha Kapoor
           11 | Sandeep Malhotra
(8 rows)
```

2) Find all the disasters and their locations that happened before the year 2024.

```
disaster=#  SELECT disaster_type,location,date
disaster-#   FROM disaster where date<'2024-01-01';
 disaster_type |         location          |    date
---------------+---------------------------+------------
 Cyclone       | Odisha, India             | 2023-10-05
 Wildfire      | Bandipur, India           | 2023-03-22
 Blizzard      | Leh, India                | 2023-12-19
 Cyclone       | West Bengal, India        | 2023-09-20
 Flood         | Patna, India              | 2023-06-30
 Heatwave      | Nagpur, India             | 2023-04-15
 Landslide     | Shillong, India           | 2023-07-18
 Tsunami       | Andaman & Nicobar, India | 2022-11-10
 Wildfire      | Wayanad, India            | 2023-02-25
 Drought       | Madhya Pradesh, India     | 2023-03-14
 Earthquake    | Shimla, India             | 2023-05-12
 Flood         | Kochi, India              | 2023-07-10
(12 rows)
```

3) Find the available capacity of each relief center.

```
disaster=#  SELECT r.relief_center_id, r.name, r.location, r.capacity - COALESCE(COUNT(v.relief_center_id), 0) AS available_capacity
disaster-#   FROM relief_center AS r
disaster-#   LEFT JOIN victim AS v ON r.relief_center_id = v.relief_center_id
disaster-#   GROUP BY r.relief_center_id, r.name, r.location, r.capacity ORDER by r.relief_center_id;
 relief_center_id |             name              |       location       | available_capacity
------------------+-------------------------------+----------------------+--------------------
                1 | Delhi Relief Hub              | Delhi, India         |               4997
                2 | Mumbai Relief Shelter         | Mumbai, India        |               9998
                3 | Chennai Coastal Relief Center | Chennai, India       |               6997
                4 | Odisha Cyclone Shelter        | Puri, Odisha, India  |               5997
                5 | Bihar Flood Relief Camp       | Patna, Bihar, India  |               7997
                6 | Leh Snowstorm Aid Center      | Leh, India           |               3000
                7 | Madhya Pradesh Drought Camp   | Bhopal, India        |               5000
                8 | Kochi Flood Shelter           | Kochi, Kerala, India |               7000
(8 rows)
```

4) Return the number of people that are still missing from each disaster affected area in ascending order.

```
disaster=# SELECT d.disaster_id, d.disaster_type, a.area_name,
disaster-# COUNT(v.victim_id) AS missing_victims
disaster-# FROM disaster AS d LEFT JOIN affected_area AS a ON d.disaster_id = a.disaster_id JOIN victim AS v ON d.disaster_id = v.disaster_id
disaster-# WHERE v.status='Missing'
disaster-# GROUP BY d.disaster_id, d.disaster_type, a.area_name
disaster-# ORDER BY d.disaster_id;
 disaster_id | disaster_type |    area_name    | missing_victims
-------------+---------------+-----------------+-----------------
           1 | Earthquake    | Central Delhi   |               1
           1 | Earthquake    | South Delhi     |               1
           2 | Flood         | Andheri         |               1
           2 | Flood         | Bandra          |               1
           2 | Flood         | Dharavi         |               1
           4 | Heatwave      | Ahmedabad City  |               1
           4 | Heatwave      | Gandhinagar     |               1
           5 | Landslide     | Darjeeling Town |               1
           5 | Landslide     | Kalimpong       |               1
(9 rows)
```

5) Find all the teams that are currently working in the following areas - Manali, Mumbai, Gangtok.

```
disaster=# SELECT r.team_id,team_name,specialization,location from rescue_team as r, disaster as d, disaster_assigned_teams as da
disaster-# WHERE r.team_id=da.team_id and da.disaster_id=d.disaster_id and d.location IN ('Mumbai','Manali','Gangtok');
 team_id |       team_name        |             specialization             | location
---------+------------------------+----------------------------------------+----------
       2 | Flood Relief Force     | Flood & Water Rescue Operations        | Mumbai
       3 | Tsunami Rescue Corps   | Coastal Evacuations & Aid Distribution | Mumbai
       1 | Rapid Response Squad   | Earthquake Rescue & Evacuation         | Gangtok
       6 | First Responders Unit  | First Aid & Emergency Transport        | Gangtok
       4 | Blizzard Response Team | Snow Removal & Hypothermia Treatment   | Manali
       6 | First Responders Unit  | First Aid & Emergency Transport        | Manali
(6 rows)
```

6) Find the names of relief centres that have received donations from donors who have contributed more than 10,000 in total.

```
dbmsproj=# SELECT rc.Name
dbmsproj-# FROM Relief_Center rc
dbmsproj-# WHERE rc.Relief_Center_ID IN (
dbmsproj(#     SELECT d.Relief_Center_ID
dbmsproj(#     FROM Donation d
dbmsproj(#     WHERE d.Donor_Name IN (
dbmsproj(#         SELECT Donor_Name
dbmsproj(#         FROM Donation
dbmsproj(#         GROUP BY Donor_Name
dbmsproj(#         HAVING SUM(Amount) > 10000
dbmsproj(#     )
dbmsproj(# );
              name
-------------------------------
 Delhi Relief Hub
 Mumbai Relief Shelter
 Chennai Coastal Relief Center
 Odisha Cyclone Shelter
 Bihar Flood Relief Camp
(5 rows)
```

7) Find the names of the volunteers who are part of more than one rescue team.

```
dbmsproj=# SELECT v.Name
dbmsproj-# FROM Volunteer v
dbmsproj-# JOIN (
dbmsproj(#     SELECT Volunteer_ID
dbmsproj(#     FROM Volunteer_Rescue_Team
dbmsproj(#     GROUP BY Volunteer_ID
dbmsproj(#     HAVING COUNT(Team_ID) > 1
dbmsproj(# ) AS multi_team_volunteers ON v.Volunteer_ID = multi_team_volunteers.Volunteer_ID;
     name
--------------
 Vikram Singh
 Amit Gupta
 Neha Kapoor
(3 rows)
```

8) Calculate the total donations received by each relief center and display the relief center name along with the total donation amount.

```
dbmsproj=# SELECT rc.Name AS Relief_Center_Name, SUM(d.Amount) AS Total_Donations
dbmsproj-# FROM Relief_Center rc
dbmsproj-# JOIN Donation d ON rc.Relief_Center_ID = d.Relief_Center_ID
dbmsproj-# GROUP BY rc.Name;
      relief_center_name       | total_donations
-------------------------------+-----------------
 Madhya Pradesh Drought Camp   |            7500
 Bihar Flood Relief Camp       |          112000
 Delhi Relief Hub              |          585000
 Odisha Cyclone Shelter        |          200000
 Mumbai Relief Shelter         |          850000
 Chennai Coastal Relief Center |          410000
 Leh Snowstorm Aid Center      |            6000
(7 rows)
```

9) Find the information about ongoing disasters, including the disaster type, date, location, and the rescue teams assigned to them along with their specializations.

```
dbmsproj=# SELECT d.Disaster_Type, d.Date, d.Location, rt.Team_Name, rt.Specialization
dbmsproj-# FROM Disaster d
dbmsproj-# JOIN Disaster_Assigned_Teams dat ON d.Disaster_ID = dat.Disaster_ID
dbmsproj-# JOIN Rescue_Team rt ON dat.Team_ID = rt.Team_ID
dbmsproj-# WHERE d.Status = 'Ongoing';
 disaster_type |    date    |    location    |         team_name         |             specialization
---------------+------------+----------------+---------------------------+----------------------------------------
 Flood         | 2025-04-12 | Mumbai         | Flood Relief Force        | Flood & Water Rescue Operations
 Flood         | 2025-04-12 | Mumbai         | Tsunami Rescue Corps      | Coastal Evacuations & Aid Distribution
 Landslide     | 2025-03-15 | Darjeeling     | Rapid Response Squad      | Earthquake Rescue & Evacuation
 Landslide     | 2025-03-15 | Darjeeling     | Hazardous Materials Team  | Chemical & Gas Leak Disasters
 Drought       | 2025-04-10 | Rajasthan      | Drought Relief Task Force | Water Distribution & Medical Assistance
 Drought       | 2025-04-10 | Rajasthan      | First Responders Unit     | First Aid & Emergency Transport
 Earthquake    | 2025-04-20 | Gangtok        | Rapid Response Squad      | Earthquake Rescue & Evacuation
 Earthquake    | 2025-04-20 | Gangtok        | First Responders Unit     | First Aid & Emergency Transport
 Drought       | 2023-03-14 | Madhya Pradesh | Drought Relief Task Force | Water Distribution & Medical Assistance
 Drought       | 2023-03-14 | Madhya Pradesh | First Responders Unit     | First Aid & Emergency Transport
 Blizzard      | 2025-04-29 | Manali         | Blizzard Response Team    | Snow Removal & Hypothermia Treatment
 Blizzard      | 2025-04-29 | Manali         | First Responders Unit     | First Aid & Emergency Transport
(12 rows)
```

10) Calculate the total number of victims and the total damage estimation for each disaster type.

```
dbmsproj=# SELECT d.Disaster_Type,
dbmsproj-#        COUNT(v.Victim_ID) AS Total_Victims,
dbmsproj-#        SUM(aa.Damage_Estimation) AS Total_Damage
dbmsproj-# FROM Disaster d
dbmsproj-# LEFT JOIN Victim v ON d.Disaster_ID = v.Disaster_ID
dbmsproj-# LEFT JOIN Affected_Area aa ON d.Disaster_ID = aa.Disaster_ID
dbmsproj-# GROUP BY d.Disaster_Type;
 disaster_type | total_victims | total_damage
---------------+---------------+--------------
 Drought       |             0 |     22000000
 Tsunami       |             0 |     38000000
 Cyclone       |            12 |     97000000
 Heatwave      |             8 |     22500000
 Wildfire      |             0 |      9500000
 Blizzard      |             0 |      5800000
 Flood         |            12 |     66000000
 Earthquake    |            10 |     26500000
 Landslide     |            10 |     11000000
(9 rows)
```