# IT-214
# Database Management System
## Group -- T102

# Project Title:
## "TOURISM GUIDE DATABASE"

# Queries

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|---|---|
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# UNLOGGED USER

**1. List all the places one can visit near the Polo Forest.**

SELECT * FROM Sightseeing_Places WHERE Dest_Name='Polo Forest'

| | dest_name [PK] character varying | sight_name [PK] character varying | timing character varying | ticketprice double precision | dist_from_dest double precision |
|---|---|---|---|---|---|
| 1 | Polo Forest | Harnav Dam/river | [null] | 220.5 | 3.2 |
| 2 | Polo Forest | Polo jain nagri | 10:30 | 120 | 9.5 |

**2. List the destinations that are of the type of beach. Also give the hotels available at these destinations.**

SELECT Destination_Name, Hotel_ID, Hotel_Name FROM(
   Hotels NATURAL JOIN(
       SELECT Destination_Name, Hotel_ID FROM (
          (SELECT Destination_Name FROM Destination WHERE Type_of_Place = 'Beach')
          AS r1
       JOIN
          Available_HOTELS AS r2
       ON r1.Destination_Name = r2. Dest_Name)
   ) AS r3
)

| | destination_name character varying | hotel_id character varying | hotel_name character varying |
|---|---|---|---|
| 1 | Madhavpur Beach | H018 | Fern Resort |
| 2 | Madhavpur Beach | H019 | Hotel Kuber |
| 3 | Nagoa Beach | H020 | Radhika Resort |
| 4 | Nagoa Beach | H021 | Grand Highness |

**3. Give a list of all sightseeing places where there are no timing restrictions and no ticket prices.**

SELECT * FROM Sightseeing_places WHERE Timing IS NULL AND Ticketprice IS NULL

| | dest_name [PK] character varying | sight_name [PK] character varying | timing character varying | ticketprice double precision | dist_from_dest double precision |
|---|---|---|---|---|---|
| 1 | SOU | Sardar Sarovar Dam | [null] | [null] | 5 |
| 2 | SOU | Zarvani waterfall | [null] | [null] | 3.5 |
| 3 | Dwarkadhish Temple | Byet Dwarka | [null] | [null] | 60 |
| 4 | Dwarkadhish Temple | Sunset point | [null] | [null] | 4 |
| 5 | Dwarkadhish Temple | Shivrajpur beach | [null] | [null] | 20 |
| 6 | Runn of Kutch | Mandvi beach | [null] | [null] | 138.3 |
| 7 | Saputara | Gira Dhodh | [null] | [null] | 4.2 |
| 8 | Nagoa Beach | Ghoghala Beach | [null] | [null] | 28 |

## 4. For each destination, tell the hotel that is nearest to it.

```sql
SELECT Dest_Name, Hotel_ID, Hotel_Name, Dist_FROM_Dest FROM(
    Hotels NATURAL
    JOIN(
        (SELECT Dest_name, Hotel_ID, Dist_FROM_dest FROM
         Available_Hotels
         NATURAL JOIN
         Hotels) AS r1
      NATURAL JOIN
        ( SELECT Dest_name, min(Dist_FROM_dest) AS Dist_FROM_dest FROM
         Available_Hotels
         NATURAL  JOIN
         Hotels GROUP BY Dest_name )AS r2
    )AS r3
)
```

Data Output    Messages    Notifications

| | dest_name<br>character varying | hotel_id<br>character varying | hotel_name<br>character varying | dist_from_dest<br>double precision |
|---|---|---|---|---|
| 1 | Dwarkadhish Temple | H006 | Guru Prerna | 7 |
| 2 | Saputara | H012 | Tent City | 2 |
| 3 | SOU | H002 | Fern Resort | 4 |
| 4 | Madhavpur Beach | H018 | Fern Resort | 4 |
| 5 | Runn of Kutch | H009 | Hotel White Desert | 2 |
| 6 | Pavagadh | H015 | Hotel Ekant | 2 |
| 7 | Nagoa Beach | H021 | Grand Highness | 1.5 |
| 8 | Polo Forest | H016 | Polo Retreat Resort | 1 |
| 9 | Ambaji mata Temple | H007 | Savita Govind | 2 |
| 10 | Gir National Park | H003 | Lion's Den | 0.5 |

## 5. Which hotels have rooms at SOU in the range of Rs 1000 - Rs 3500?

```
SELECT Hotel_ID, Hotel_Name, Room_Type FROM(
   Hotels NATURAL JOIN(
         (SELECT Hotel_ID FROM Available_Hotels WHERE Dest_Name = 'SOU') AS r1
         NATURAL JOIN
         (SELECT Hotel_ID, Room_Type FROM Room_Type WHERE Price>=1000 AND
          Price<=3500) AS r2
   )
)
```

Data Output    Messages    Notifications

| | hotel_id<br>character varying | hotel_name<br>character varying | room_type<br>character varying |
|---|---|---|---|
| 1 | H001 | Tent City | Regular |

## 6. Give the hotel contact details which give the maximum refund for each destination.

```sql
SELECT Ah.Dest_Name,
     H.Hotel_Name,
     Hd.Hotel_Id,
     Hd.Contact_Num,
     Rp.Room_Type,
     Rp.Days,
     Rp.Amnt_Per AS MaxRefundPercentage
FROM Refund_Policy Rp
JOIN (
     SELECT Ah.Dest_Name,
          MAX(Rp.Amnt_Per) AS MaxAmntPer
     FROM Refund_Policy Rp
     JOIN Available_Hotels Ah ON Rp.Hotel_Id = Ah.Hotel_Id
     GROUP BY Ah.Dest_Name
   ) MaxRefund ON Rp.Amnt_Per = MaxRefund.MaxAmntPer
JOIN Available_Hotels Ah ON Rp.Hotel_Id = Ah.Hotel_Id
AND Ah.Dest_Name = MaxRefund.Dest_Name
JOIN Hotel_Contact_Detail Hd ON Rp.Hotel_Id = Hd.Hotel_Id
JOIN Hotels AS H ON H.Hotel_Id = Ah.Hotel_Id;
```

Data Output    Messages    Notifications

| | dest_name<br>character varying | hotel_name<br>character varying | hotel_id<br>character varying | contact_num<br>bigint | room_type<br>character varying | days<br>integer | max_refund_percentage<br>double precision |
|---|---|---|---|---|---|---|---|
| 1 | Dwarkadhish Temple | Fern Resort | H005 | 8789025372 | Regular | 5 | 95 |
| 2 | Saputara | Hotel Lake View | H011 | 8751234165 | Delux | 1 | 91 |
| 3 | SOU | Fern Resort | H002 | 8800991234 | Delux | 5 | 82 |
| 4 | SOU | Fern Resort | H002 | 9876123009 | Delux | 5 | 82 |
| 5 | Madhavpur Beach | Hotel Kuber | H019 | 8780987612 | Regular | 1 | 90 |
| 6 | Runn of Kutch | Ki...Aayo | H010 | 9012763908 | Delux | 3 | 95 |
| 7 | Runn of Kutch | Ki...Aayo | H010 | 9981233212 | Delux | 3 | 95 |
| 8 | Pavagadh | Hotel Sarvottam | H014 | 8076245370 | Regular | 2 | 90 |
| 9 | Nagoa Beach | Grand Highness | H021 | 8766781235 | Regular | 2 | 89 |
| 10 | Polo Forest | Polo Retreat Resort | H016 | 8800011762 | Delux | 4 | 81 |
| 11 | Ambaji mata Temple | Savita Govind | H007 | 9098906512 | Regular | 2 | 88 |
| 12 | Gir National Park | Aaranya Resort | H004 | 9090877254 | Regular | 5 | 87 |

**7. Give the tour and travel company details which provide service at religious places.**
SELECT DISTINCT Tours_And_Travels.*
FROM Tours_And_Travels
NATURAL JOIN Pricing_Conditions
JOIN Destination AS D ON D.Destination_Name = Pricing_Conditions.Dest_Name
WHERE Dest_Name IN
   (SELECT Destination_Name
    FROM Destination
    WHERE Type_Of_Place = 'Religious Place');

Data Output    Messages    Notifications

| | tour_id<br>[PK] character varying | company_name<br>character varying | website<br>character varying | email_id<br>character varying | rating<br>double precision |
|---|---|---|---|---|---|
| 1 | TT001 | Bazinga | www.bazinga.com | bazinga@gamil.com | 4 |
| 2 | TT007 | Travel Talk | www.traveltalk.com | traveltalk@gmail.com | 2.5 |

**8. Return the destination which is most visited by customers.**
SELECT DestName, COUNT(DestName) AS Cnt
FROM Visited GROUP BY DestName ORDER BY Cnt DESC LIMIT 1;

Data Output    Messages    Notifications

| | dest_name<br>character varying | cnt<br>bigint |
|---|---|---|
| 1 | SOU | 6 |

**9. List all the destinations where more than 2 customers have given at least 3 stars.**

```
SELECT R1.DestName,
    COUNT(CustId) AS CustCount
FROM (
    SELECT *
    FROM RatingDest AS R
    WHERE R.Stars >= 3
    GROUP BY Stars, CustId, DestName
    ORDER BY R.CustId
) AS R1
GROUP BY R1.DestName
HAVING COUNT(CustId) > 2;
```

Data Output    Messages    Notifications

| | dest_name<br>character varying | cust_count<br>bigint |
|---|---|---|
| 1 | Dwarkadhish Temple | 4 |
| 2 | Saputara | 5 |
| 3 | SOU | 6 |
| 4 | Madhavpur Beach | 3 |
| 5 | Runn of Kutch | 4 |
| 6 | Nagoa Beach | 4 |
| 7 | Ambaji mata Temple | 3 |
| 8 | Gir National Park | 4 |

## 10. Give the destinations and all of their respective sightseeing places located in Diu city.

```
SELECT DestName, SightName, Timing, TicketPrice, DistFromDest
FROM (
    SELECT *
    FROM Destination
    WHERE City = 'Diu'
) AS R1
JOIN SightseeingPlaces AS R2 ON R2.DestName = R1.DestinationName) AS R3;
```

Data Output   Messages   Notifications

| | dest_name [PK] character varying | sight_name [PK] character varying | timing character varying | ticketprice double precision | dist_from_dest double precision |
|---|---|---|---|---|---|
| 1 | Nagoa Beach | Diu Fort | 10:00AM to 6:00PM | 70 | 42 |
| 2 | Nagoa Beach | St. Paul Church | 8:00AM to 6:00PM | [null] | 8 |
| 3 | Nagoa Beach | Diu Museum | 11:00AM to 4:00PM | 300 | 4 |
| 4 | Nagoa Beach | Naida Caves | [null] | 80 | 19 |
| 5 | Nagoa Beach | Ghoghala Beach | [null] | [null] | 28 |
| 6 | Nagoa Beach | Chapal of Lady Rosary | 8:00AM to 6:00PM | [null] | 9 |

## 11. Give the details of the tour and travel company that has the lowest consultancy fee for Nagoa Beach.

```
SELECT Tours_And_Travels.*
FROM (
    Tours_And_Travels NATURAL JOIN (
        SELECT TourId, MIN(ConsultantFee) AS Fee
        FROM Pricing_Conditions
        WHERE DestName = 'Nagoa Beach'
        GROUP BY TourId
        ORDER BY Fee
        LIMIT 1
    ) AS R2
);
```

Data Output   Messages   Notifications

| | tour_id [PK] character varying | company_name character varying | website character varying | email_id character varying | rating double precision |
|---|---|---|---|---|---|
| 1 | TT005 | FlyHigh | www.flyhigh.com | flyhigh@gmail.com | 4 |

**12. Write a query to find the place that has the highest footfall in the month of February.**

SELECT DestName, COUNT(*) AS Visits
FROM Visited
WHERE EXTRACT(MONTH FROM StartDate) = 2
GROUP BY DestName
ORDER BY Visits DESC
LIMIT 1;

Data Output  Messages  Notifications

| | dest_name<br>character varying | visits<br>bigint |
|---|---|---|
| 1 | Nagoa Beach | 4 |

**13.  List the destinations and their respective costs if five individuals visit all of the sightseeing spots and spend no more than Rs 5,500.**

SELECT Dest_Name, Expenditure FROM(
    SELECT Dest_Name, SUM(TicketPrice*5) AS Expenditure From SightSeeing_Places GROUP BY Dest_Name
    EXCEPT
    SELECT Dest_Name, SUM(TicketPrice*5) AS Expenditure FROM Sightseeing_Places GROUP BY Dest_Name HAVING SUM(TicketPrice*5)>5500
) AS r1 ORDER BY Expenditure

Data Output  Messages  Notifications

| | dest_name<br>character varying | expenditure<br>double precision |
|---|---|---|
| 1 | Gir National Park | 100 |
| 2 | Pavagadh | 1500 |
| 3 | SOU | 1500 |
| 4 | Polo Forest | 1702.5 |
| 5 | Nagoa Beach | 2250 |
| 6 | Madhavpur Beach | 2800 |
| 7 | Ambaji mata Temple | [null] |
| 8 | Runn of Kutch | [null] |
| 9 | Dwarkadhish Temple | [null] |

# CUSTOMER

**1. Return the total number of deluxe rooms available in H002 from January 14 to January 16, 2024.**

SELECT COUNT(Room_No) FROM(
       (SELECT Room_No FROM room_number WHERE Hotel_ID = 'H002' AND Room_Type =
       'Delux')
       EXCEPT
       (SELECT Room_No FROM bookings WHERE Hotel_ID = 'H002' AND Room_Type =
       'Delux' AND StartDate>='2024-01-14')
) as r1

Data Output    Mess

| | count<br>bigint |
|---|---|
| 1 | 0 |

**2. C014 wants to know how much money he will receive if he cancels a booking at hotel H006, R1002, Regular on January 13, 2024.**

SELECT BookedDays*Price - BookedDays*Price*Amnt_per/100 AS ReturnAmount FROM(
       Refund_policy NATURAL JOIN Room_Type NATURAL JOIN
       (SELECT  Hotel_ID, Room_Type, EndDate-StartDate AS BookedDays,
       StartDate-'2024-01-14' AS Days FROM Bookings
               WHERE Hotel_ID = 'H006' AND Cust_ID = 'C014' AND Room_Type =
       'Regular') as q1

       ) AS R2

| | returnamount<br>double precision |
|---|---|
| 1 | 840 |

**3. Customer ID C002 has booked a regular room at Hotel H001 with a start date of February 15, 2024. However, he now wishes to modify the room type to Delux. So, how much would this booking cost him in total, given that the hotel only gives him a partial refund for canceling the usual room?**

SELECT SUM(New_Price+Price_paid-Refund_Amount) AS Total_Expenditure FROM(
        (SELECT Cust_ID, Hotel_ID, BookedDays*Price AS Price_Paid,
        BookedDays*Price*Amnt_per/100 AS Refund_Amount FROM(
            (SELECT Cust_ID, Hotel_ID, Room_Type, EndDate-StartDate AS
        BookedDays, StartDate-'2024-02-13' AS Days FROM Bookings
                WHERE Hotel_ID = 'H001' AND Cust_ID = 'C002' AND
        StartDate = '2024-02-15' AND Room_Type = 'Regular') AS r1
            NATURAL JOIN
            Room_Type
            NATURAL JOIN
            Refund_Policy
    ) AS r2
  )AS r3
  NATURAL JOIN
  (SELECT Hotel_ID, Price*2 AS New_Price FROM Room_Type WHERE Hotel_ID = 'H001' AND
        Room_Type = 'Delux') AS r5
) AS r6

Data Output   Messages

| total_expenditure 🔒 double precision |
|---|
| 1       12500 |

**4. A customer named Mohit Sharma wants to know the destination details he has visited on or before February 18, 2024.**

SELECT Destination.* FROM Destination NATURAL JOIN(
        SELECT Dest_Name AS Destination_Name FROM(
           Visited AS v
    JOIN Customer AS c1 ON v.Cust_ID = c1.Customer_ID) AS r1
    WHERE r1.Start_Date <= ('2024-02-18')
        AND r1.CustomerName = 'Mohit Sharma'
      )AS r2

| | destination_name [PK] character varying | type_of_place character varying | city character varying | nearby_landmark character varying | area character varying | pincode integer | bus_stat_dist double precision | railway_stat_dist double precision |
|---|---|---|---|---|---|---|---|---|
| 1 | SOU | Tourist spot | Bharuch | Statue of Unity Road | Kevadiya | 393155 | 3.5 | 10 |
| 2 | Saputara | Hill station | Dang | Near Patang Hotel | Ahwa | 394720 | 1 | 5 |
| 3 | Polo Forest | Tourist Spot | Sabarkantha | Near Polo Tent City | Bandhana | 383460 | 7 | 7 |

**5. On March 20, 2024, C010 visited Nagoa Beach and booked hotel accommodations. Now he wants to know how much did he spend in all if he traveled to every single sightseeing spot also.**

SELECT Cust_ID, SUM(Hotel_Price + Sight_price) FROM(
   (SELECT Cust_ID, SUM(BookedDays*Price) AS Hotel_Price FROM(
        (SELECT Cust_ID, Hotel_ID, Room_Type, Dest_Name, EndDate-StartDate AS BookedDays FROM Bookings
  NATURAL JOIN Available_Hotels
  WHERE
StartDate = '2024-03-20' AND Dest_Name = 'Nagoa Beach' AND Cust_ID = 'C010') AS r1
NATURAL JOIN Room_Type) GROUP BY Cust_ID) AS r2
NATURAL JOIN
(SELECT Cust_ID, SUM(TicketPrice) AS Sight_Price FROM Sightseeing_Places NATURAL JOIN Visited
WHERE Dest_Name = 'Nagoa Beach' AND Cust_ID = 'C010' GROUP BY Cust_ID)AS r3
 ) AS r4 GROUP BY Cust_ID

Data Output    Messages    Notifications

| | cust_id character varying | sum double precision |
|---|---|---|
| 1 | C010 | 15450 |

**6. Give the customer details of those who booked more than 1 room in the same hotel.**

SELECT r1.* FROM(
       Customer NATURAL JOIN
       (SELECT Cust_ID AS Customer_ID FROM Bookings  GROUP BY Hotel_ID,Cust_ID
       HAVING COUNT(Cust_ID)>1) AS r2
) AS r1

Data Output    Messages    Notifications

| | customer_id [PK] character varying | customername character varying | contactnumber bigint | email character varying | gender character | city character varying | dob date |
|---|---|---|---|---|---|---|---|
| 1 | C010 | Isha Dave | 9901777567 | [null] | F | Junagadh | 1993-07-22 |
| 2 | C008 | Priya Oberoy | 9789012345 | priya@gmail.com | F | Nadiad | 1995-04-08 |

**7. The customer wants to know the minimum package according to Tour and Travel.**
SELECT L.DEST_NAME,
         L.TOUR_ID,
         MIN(AMOUNT)AS AMT
FROM PACKAGES AS L
GROUP BY L.DEST_NAME,
         L.TOUR_ID
ORDER BY AMT
LIMIT 1

Data Output    Messages    Notifications

| | dest_name character varying | tour_id character varying | amt double precision |
|---|---|---|---|
| 1 | Madhavpur Beach | TT006 | 400 |

**8. Customer named Seema Goenka wants to check how much she has paid to TT006.**

SELECT TOUR_ID,
            SUM((ADULTS * CONSULTANT_FEE) + (CHILDREN * CONSULTANT_FEE))
        FROM
        (SELECT TOUR_ID,
                    ADULTS,
                    CHILDREN,
                    DEST_NAME
            FROM TOURIST AS T1
            JOIN CUSTOMER AS C1 ON C1.CUSTOMER_ID = T1.CUST_ID
            WHERE C1.CUSTOMERNAME = 'Seema Goenka') AS R1
NATURAL JOIN PRICING_CONDITIONS AS R2
GROUP BY TOUR_ID

Data Output    Messages    Notifications

| tour_id character varying | sum double precision |
|---|---|
| 1 | TT006 | 46000 |

## 9. Give the Tours and Travels who provide both consultancy and packages at the same destination.

```
SELECT Tour_ID, Dest_Name FROM(
            SELECT Tour_ID, Dest_Name FROM Pricing_Conditions
            INTERSECT
            SELECT Tour_ID, Dest_Name FROM Packages
) AS r1
```

Data Output    Messages    Notifications

| | tour_id character varying | dest_name character varying |
|----|----|----|
| 1 | TT006 | Gir National Park |
| 2 | TT009 | Saputara |
| 3 | TT002 | Gir National Park |
| 4 | TT007 | Dwarkadhish Temple |
| 5 | TT005 | Nagoa Beach |
| 6 | TT001 | Dwarkadhish Temple |
| 7 | TT005 | Saputara |
| 8 | TT003 | SOU |
| 9 | TT008 | Pavagadh |
| 10 | TT006 | Madhavpur Beach |
| 11 | TT009 | Runn of Kutch |
| 12 | TT005 | Runn of Kutch |
| 13 | TT001 | Ambaji mata Temple |
| 14 | TT007 | Polo Forest |

**10. The customer wants to fetch the contact details of a tour and travel company which provides service at Saputara.**

```
SELECT R1.*
FROM TOUR_CONTACT_DETAILS AS R1
JOIN PRICING_CONDITIONS AS P1 ON R1.TOUR_ID = P1.TOUR_ID
WHERE P1.DEST_NAME = 'Saputara'
```

Data Output    Messages    Notifications

| | tour_id [PK] character varying | contact_number [PK] bigint |
|---|---|---|
| 1 | TT005 | 9007654321 |
| 2 | TT005 | 9007650021 |
| 3 | TT009 | 9087604321 |
| 4 | TT009 | 9067604321 |

# HOTEL:

**1. Return the number of customers who have given more than 3 stars to Hotel H005.**

SELECT COUNT(CustId) AS CustomerCount
FROM Rating_Hotel
WHERE Stars > 3 AND Hotel_Id = 'H005';

| | customer_count bigint |
|---|---|
| 1 | 1 |

**2. Which is the most preferred room type by customers in Hotel H002 .**
SELECT Room_Type, COUNT(Room_Type) AS Tot_Customers
FROM Bookings
WHERE Hotel_Id = 'H002'
GROUP BY Bookings.Room_Type
ORDER BY Tot_Customers DESC
LIMIT 1;

| | room_type character varying | tot_customers bigint |
|---|---|---|
| 1 | Delux | 4 |

**3. Give the Hotel_ID and Hotel_Name where there is no booking.**
SELECT Hotel_ID, Hotel_Name FROM(
          Hotels
          NATURAL JOIN(
                  SELECT Hotel_ID FROM Hotels
                  EXCEPT
                  SELECT DISTINCT Hotel_ID FROM Bookings
          ) AS r1
) AS r2

| | hotel_id [PK] character varying | hotel_name character varying |
|---|---|---|
| 1 | H018 | Fern Resort |
| 2 | H014 | Hotel Sarvottam |

**4. Give the details of customers who will check-in on 05/03/2024 in H016.**
SELECT r1.* FROM(
          Customer NATURAL JOIN
          (SELECT Cust_ID AS Customer_ID FROM Bookings WHERE Hotel_ID = 'H016'
          AND StartDate = '2024-03-05') AS r2
) AS r1

| | customer_id [PK] character varying | customername character varying | contactnumber bigint | email character varying | gender character | city character varying | dob date |
|---|---|---|---|---|---|---|---|
| 1 | C012 | Pankaj Dhanani | 987601234 | [null] | M | Godhra | 1978-02-05 |

## 5. Return the number of bookings done by tour companies for each hotel.

SELECT Hotel_ID, Hotel_Name, cnt FROM(
          Hotels NATURAL JOIN
          (SELECT Hotel_ID, COUNT(Tour_ID) AS cnt FROM Bookings GROUP BY
          Hotel_ID) AS r2
) AS r1 WHERE cnt <> 0

**Data Output**   Messages   Notifications

| | hotel_id [PK] character varying | hotel_name character varying | cnt bigint |
|---|---|---|---|
| 1 | H001 | Tent City | 1 |
| 2 | H002 | Fern Resort | 4 |
| 3 | H003 | Lion's Den | 1 |
| 4 | H004 | Aaranya Resort | 1 |
| 5 | H005 | Fern Resort | 3 |
| 6 | H006 | Guru Prerna | 1 |
| 7 | H008 | Parvati Sadan | 1 |
| 8 | H010 | Ki...Aayo | 2 |
| 9 | H011 | Hotel Lake View | 1 |
| 10 | H012 | Tent City | 1 |
| 11 | H013 | Jalsa Villa | 1 |
| 12 | H015 | Hotel Ekant | 2 |
| 13 | H017 | Polo Forest Resort | 1 |
| 14 | H020 | Radhika Resort | 1 |

**6. List the number of bookings at the Fern Resort for each Destination.**
SELECT d.Destination_name,count(Cust_ID) AS co
FROM((SELECT hotel_id,Cust_ID FROM Bookings NATURAL JOIN Hotels WHERE Hotel_name
      = 'Fern Resort')
AS r1 NATURAL JOIN Available_Hotels) AS r2 JOIN Destination AS d ON d.Destination_name =
      r2.Dest_Name
group BY d.Destination_name

Data Output    Messages    Notifications

| | destination_name<br>[PK] character varying | co<br>bigint |
|---|---|---|
| 1 | Dwarkadhish Temple | 3 |
| 2 | SOU | 6 |

**7. How much has H017 earned in the month of February from each customer?**
SELECT b.Cust_ID, SUM(r.Price) AS Total_Earnings
FROM  Bookings b
JOIN Room_Type r ON b.Hotel_ID = r.Hotel_ID AND b.Room_Type = r.Room_Type
WHERE EXTRACT(MONTH FROM b.StartDate) = 2
AND b.Hotel_ID = 'H017'
GROUP BY  b.Cust_ID;

Data Output    Messages    Notifications

| | cust_id<br>character varying | total_earnings<br>double precision |
|---|---|---|
| 1 | C002 | 3500 |
| 2 | C005 | 2500 |

## 8. At which destination does Fern Resort have the maximum rating?

SELECT Dest_Name, Hotel_ID, Hotel_Name, Rating FROM(
       (SELECT Hotel_ID, Hotel_Name, Rating FROM Hotels WHERE Hotel_Name =
       'Fern Resort') AS r2
       NATURAL JOIN Available_Hotels
) AS r1 ORDER BY Rating DESC LIMIT 1

Data Output   Messages   Notifications

| | dest_name<br>character varying | hotel_id<br>character varying | hotel_name<br>character varying | rating<br>double precision |
|---|---|---|---|---|
| 1 | SOU | H002 | Fern Resort | 3.75 |

## 9. List the profit for all Hotels from cancellations.

SELECT Hotel_ID, SUM(RoomPrice*BookedDays*(1-(Amnt_Per/100)))FROM (
      ((SELECT Hotel_ID, Room_Type, EndDate-StartDate AS BookedDays,
      StartDate-CancellatiONDate AS Days FROM CancellatiONs) AS r1
          NATURAL JOIN
          (SELECT Hotel_ID, Room_Type, Price AS RoomPrice FROM Room_Type) AS r2
      ) AS r3
      NATURAL JOIN Refund_Policy
) AS r6 GROUP BY Hotel_ID

Data Output   Messages   Notifications

| | hotel_id<br>character varying | sum<br>double precision |
|---|---|---|
| 1 | H003 | 4500 |
| 2 | H007 | 528 |
| 3 | H011 | 945 |
| 4 | H018 | 1100 |
| 5 | H021 | 2320 |

**10. Fern Resorts wants to get the details of a customer who has booked their hotel at all three destinations.**

SELECT * FROM Customer WHERE Customer_ID IN(
      SELECT Cust_ID FROM
          (SELECT DISTINCT Cust_ID, Hotel_ID FROM Bookings NATURAL JOIN Hotels
               WHERE Hotel_Name = 'Fern Resort') AS r1
      GROUP BY Cust_ID HAVING COUNT(Hotel_ID)=3)

| customer_id | customername | contactnumber | email | gender | city | dob |
|---|---|---|---|---|---|---|
| [PK] character varying | character varying | bigint | character varying | character | character varying | date |

# Tour and Travel

**1. Which customers prefer Tours and Travel as a means of booking rather than direct booking?**

SELECT DISTINCT c.* FROM
Customer AS c JOIN  Bookings AS b ON c.Customer_ID = b.Cust_ID WHERE b.Tour_id IS NOT
NULL;

| | customer_id [PK] character varying | customername character varying | contactnumber bigint | email character varying | gender character | city character varying | dob date |
|---|---|---|---|---|---|---|---|
| 1 | C002 | Jancy John | 9876543210 | [null] | F | Surat | 1992-07-14 |
| 2 | C006 | Seema Goenka | 9567890123 | seema@gmail.com | F | Jamnagar | 1983-09-17 |
| 3 | C010 | Isha Dave | 9901777567 | [null] | F | Junagadh | 1993-07-22 |
| 4 | C014 | Nishil Parmar | 98909872435 | nishil@gmail.com | M | Surat | 2004-11-19 |
| 5 | C009 | Nitin Joshi | 9890123456 | nitinj@gmail.com | M | Morbi | 1986-12-19 |
| 6 | C008 | Priya Oberoy | 9789012345 | priya@gmail.com | F | Nadiad | 1995-04-08 |
| 7 | C003 | Raj Patel | 9234567890 | rajpatel@gmail.com | M | Vadodara | 1988-03-12 |
| 8 | C015 | Isha Patel | 9929987654 | [null] | F | Junagadh | 2001-07-26 |
| 9 | C011 | Sonia Trivedi | 9567890123 | sonia@gmail.com | F | Jamnagar | 1980-09-15 |

**2. Which other tour and travel companies provide services at Dwarkadhish Temple other than TT007 and what are their pricing conditions.**

SELECT DISTINCT P.TOUR_ID,
        P.DEST_NAME,
        PC.CONSULTANT_FEE,
        PC.REFUND_PERCENT
FROM PACKAGES AS P
NATURAL JOIN PRICING_CONDITIONS AS PC
WHERE P.DEST_NAME = 'Dwarkadhish Temple'
        AND P.TOUR_ID <> 'TT007';

Data Output    Messages    Notifications

| | tour_id character varying | dest_name character varying | consultant_fee double precision | refund_percent double precision |
|---|---|---|---|---|
| 1 | TT001 | Dwarkadhish Temple | 5000 | 20 |

## 3. Give the Destination where TT001 gets maximum rating from the customers.

SELECT T.DEST_NAME,
   R.STARS
FROM RATING_TANDT AS R
NATURAL JOIN TOURIST AS T
WHERE T.TOUR_ID = 'TT001'
GROUP BY T.DEST_NAME,
   R.STARS
ORDER BY R.STARS DESC
LIMIT 1 ;

Data Output Messages Notifications

| | dest_name<br>character varying | stars<br>integer |
|---|---|---|
| 1 | Polo Forest | 5 |

## 4. TT005 wants the contact details of the customers who cancelled their booking in February.

SELECT C2.CUST_ID,
   C1.CONTACTNUMBER,
   C2.CANCELLATIONDATE
FROM CUSTOMER AS C1
JOIN CANCELLATIONS AS C2 ON C1.CUSTOMER_ID = C2.CUST_ID
WHERE C2.TOUR_ID = 'TT005'
   AND EXTRACT(MONTH FROM C2.CANCELLATIONDATE) = 2;

| | cust_id<br>character varying | contactnumber<br>bigint | cancellationdate<br>date |
|---|---|---|---|
| 1 | C015 | 9929987654 | 2024-02-16 |
| 2 | C015 | 9929987654 | 2024-02-24 |

**5. TT008 wants to know about the start date, number of days, and number of people going to SOU for customer C008.**

```
SELECT V.DEST_NAME,
           V.CUST_ID,
           V.START_DATE,
           V.NO_OF_DAYS
FROM VISITED AS V
JOIN TOURIST AS T ON V.DEST_NAME = T.DEST_NAME
WHERE T.TOUR_ID = 'TT008'
           AND V.CUST_ID = 'C008'
           AND V.DEST_NAME = 'SOU';
```

Data Output  Messages  Notifications

| dest_name [PK] character varying | cust_id [PK] character varying | start_date date | no_of_days integer |
|---|---|---|---|

**6. TT002 wants to know about the room availability in Lion's Den in Gir National Park on 02/02/2024.**

```
SELECT COUNT(Room_No) FROM(
           SELECT Hotel_ID, Room_Type, Room_No FROM Room_Number NATURAL JOIN
           (SELECT Hotel_ID FROM Hotels WHERE Hotel_Name = 'Lion''s Den') AS r1

           EXCEPT

           SELECT Hotel_ID, Room_Type, Room_No FROM Bookings NATURAL JOIN
           (SELECT Hotel_ID FROM Hotels WHERE Hotel_Name = 'Lion''s Den') AS r2
           WHERE StartDate='2024-02-02'
) AS r3
```

Data Output  Messages  Notifications

| | avail_count bigint |
|---|---|
| 1 | 6 |

**7. How many customers have booked hotels by TT004 in the month of January? Give their details.**

SELECT DISTINCT c.Customer_ID, c.CustomerName, c.ContactNumber, c.Email, c.Gender,
              c.City, c.DOB
FROM Customer c
JOIN Bookings b ON c.Customer_ID = b.Cust_ID
WHERE b.Tour_ID = 'TT004'
AND EXTRACT(MONTH FROM b.StartDate) = 1;

Data Output    Messages    Notifications

| customer_id [PK] character varying | customername character varying | contactnumber bigint | email character varying | gender character | city character varying | dob date |
|---|---|---|---|---|---|---|
| 1 | C014 | Nishil Parmar | 98909872435 | nishil@gmail.com | M | Surat | 2004-11-19 |

**8. What is the total consultant fee earned by TT003 in the month of February.**

SELECT
    SUM(pc.Cosultant_Fee) AS total_Consultancy_fees
FROM
    Tourist t
JOIN
    Packages p ON t.Tour_ID = p.Tour_ID
JOIN
    Pricing_conditions pc ON t.Tour_ID = pc.Tour_ID
WHERE
    t.Tour_ID = 'TT003'
    AND EXTRACT(MONTH FROM t.Start_Date) = 2;

Data Output    Messages    Notifications

| total_consultancy_fees double precision |
|---|
| 1 | 4000 |

**9. Thomas Cook Company wants to know the details of the customer who has provided the minimum rating.**

```
SELECT C1.*
FROM
                (SELECT R1.CUST_ID,
                        MIN(STARS) AS STAR_CUST
                FROM
                        (SELECT*
                                FROM TOURS_AND_TRAVELS AS T1
                                JOIN RATING_TANDT AS T2 ON T1.TOUR_ID = T2.TOUR_ID
                                WHERE COMPANY_NAME = 'Compass') AS R1
                GROUP BY R1.CUST_ID
                ORDER BY STAR_CUST
                LIMIT 1) AS L1
JOIN CUSTOMER AS C1 ON L1.CUST_ID = C1.CUSTOMER_ID
```

Data Output    Messages    Notifications

| customer_id [PK] character varying | customername character varying | contactnumber bigint | email character varying | gender character | city character varying | dob date |
|---|---|---|---|---|---|---|
| 1 | C003 | Raj Patel | 9234567890 | rajpatel@gmail.com | M | Vadodara | 1988-03-12 |

**10. TT009 wants to check which other TT provides packages and at which rates in Runn of Kutch.**

```
SELECT DISTINCT p.Tour_ID, t.Company_name, p.Days, p.Amount FROM
Packages AS p NATURAL JOIN Tours_and_Travels AS t
WHERE p.Dest_Name='Runn of Kutch' AND p.Tour_ID!='TT009'
```

Data Output    Messages    Notifications

| | tour_id character varying | company_name character varying | days integer | amount double precision |
|---|---|---|---|---|
| 1 | TT004 | Skyworld | 5 | 10500 |
| 2 | TT004 | Skyworld | 6 | 12000 |
| 3 | TT005 | FlyHigh | 3 | 7000 |