

Team 06:

Globetrotter

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Milestone 2: SQL Queries

1. The Top 3 Most Rated Destination by User

This query is a way for users to see what the most commonly rated destination is; essentially the most visited. Knowing this will give the user an idea of how popular a place is.

```
SELECT
    RATING.dest_id AS destination_id,
    DESTINATION.dest_name AS destination,
    COUNT(RATING.dest_id) AS Number_Of_Times_Rated_By_User
From
    DESTINATION
    JOIN RATING ON RATING.dest_id = DESTINATION.dest_id
GROUP BY RATING.dest_id
ORDER BY Number_Of_Times_Rated_By_User DESC
LIMIT 3;
```

DATA

Destination_ID	Destination	Numbers_Of_Times_Rated_By_User
22	Buea	36
60	Winston Salem	33
18	Kaesŏng	32

2. User Search for a Highly Rated, Luxurious, Travel Destination

This query shows what someone would be looking for in a luxurious vacation, potentially honeymooners. When spending this kind of money, it's important that the vacation meets the expectations that come with that kind of payment. This will certainly help people know where to go when trying to pick a luxurious vacation spot.

```
SELECT
    CONCAT (MEMBER.member_fname, ' ', MEMBER.member_lname) AS User_Name,
    RATING.rat_stars AS User_Rating,
    RATING.rat_amt_spent as Trip_Expense,
    DESTINATION.dest_name as Destination
From
    RATING
    JOIN MEMBER ON MEMBER.member_id = RATING.member_id
    JOIN DESTINATION ON DESTINATION.dest_id = RATING.dest_id
WHERE
    RATING.rat_amt_spent > 2950
        AND (RATING.rat_stars = 4
            or RATING.rat_stars = 5)
GROUP BY User_Name
ORDER BY User_Rating DESC;
```

DATA ON THE NEXT PAGE

User_Name	User_Rating	Trip_Expense	Destination
Sari Seaton	5	2968	Champerico
Eugen Mapp	5	2966	Gradići
Lind Hardaker	5	2973	Augsburg
Jedd Blueman	5	2961	Yanas
Charley Impy	5	2972	Duncan
Neda Clohessy	5	2980	Kebon
Joana Wintle	5	2986	Anle
Chip Pauly	5	2996	Winston Salem
Orbadiah Bickerton	5	2971	Champerico
Stacy Witchell	5	2975	Kebonan
Roi Cosford	4	2997	Alcala
Merrel Arnaudet	4	2973	Stuttgart
Jany Matteuzzi	4	2985	Iwanuma
Stoddard Kupec	4	2957	Augsburg
Tami Stannas	4	2967	Daxi

3. A List of Trip Highlights Recommended by Chinese Users

Create a query that displays Chinese users' highlights in a descending order based on how many times each highlight is recommended by the Chinese users

```
SELECT
    MEMBER.member_country AS User_Country,
    HIGHLIGHT.highlight_name AS Trip_Highlight,
    COUNT(RATING.highlight_id) AS Numbers_Of_Times_Recommended
```

From

RATING

JOIN MEMBER ON MEMBER.member_id = RATING.member_id

JOIN HIGHLIGHT ON HIGHLIGHT.highlight_id = RATING.highlight_id

Where

MEMBER.member_country = 'Ch'

GROUP BY Trip_Highlight

ORDER BY Numbers_Of_Times_Recommended DESC;

DATA

User_Country	Trip_Highlight	Numbers_Of_Times_Recommended
Ch	jungles	22
Ch	surfing	21
Ch	skiing	20
Ch	hiking	20
Ch	art	18
Ch	music	18
Ch	museums	17
Ch	swimming	16
Ch	history	16
Ch	musicals	15
Ch	beaches	13
Ch	food	13
Ch	mountains	12
Ch	forests	12
Ch	coral reefs	11
Ch	views	10
Ch	desert	9

4. Get How Frequently Each Airline Was Flown With

List a history of users' numbers of transactions (airlines as an example here) from different suppliers, and sort them in descending order. Globetrotter can use this data to negotiate with top suppliers for lower prices (high volume for low prices). Thereby, Globetrotter could provide price-competitive services to attract more users.

```
SELECT
    air_name AS Airline_Name,
    count(air_name) AS Frequency_Of_Airline
FROM
(
    SELECT air_name,
           AIRLINE.air_code,
           RECOMMENDED_DEST.dest_id,
           member_id
    FROM AIRLINE
         JOIN DESTINATION ON AIRLINE.air_code = DESTINATION.air_code
         JOIN RECOMMENDED_DEST ON DESTINATION.dest_id =
RECOMMENDED_DEST.dest_id
    )t1
GROUP BY air_name
ORDER BY Frequency_Of_Airline DESC;
```

Airline_Name	Frequency_Of_Airline
Thai Airways International Ltd.	26
Hainan Airlines Company Limited	16
Jalways Co. Ltd.	16
Asiana Airlines Inc.	16
United Air Lines Inc.	15
Compagnie Natl Air France	15
Lufthansa German Airlines	14
China Southern Airlines	12
Alaska Airlines Inc.	10
Air Canada	9
Aeromexico Travel	8
Spirit Air Lines	8
Delta Air Lines Inc.	7
British Airways Plc	6
China Eastern Airlines	6
Hawaiian Airlines Inc.	5
American Airlines Inc.	4
JetBlue Airways	3
Jeju Air Co Ltd.	1

5. Get 5 Star Destinations Best Known for Their Beaches

If someone wants to know the most highly rated places where they can go hang out by the beach, this query can do just that. The purpose of this query is to be highly flexible regarding the highlight people are looking for. It is easy to search for locations based on the highlight they are known for by swapping “beaches” out with a different highlight.

```

SELECT
    dest_name AS Destination,
    highlight_name AS Highlight,
    rat_stars AS Rating
FROM
    DESTINATION,
    RATING,
    HIGHLIGHT
WHERE
    DESTINATION.dest_id = RATING.dest_id
    AND HIGHLIGHT.highlight_id = RATING.highlight_id

```

```

AND RATING.rat_stars = 5
AND HIGHLIGHT.highlight_name = "beaches"
GROUP BY DESTINATION.dest_name;

```

DESTINATION	HIGHLIGHT	RATING
Karangsari	beaches	5
Konstantinovo	beaches	5
Anle	beaches	5
Komsomolsk	beaches	5
Kebonan	beaches	5
San Marcos	beaches	5
Muuria	beaches	5
Kaesong	beaches	5
Baixo Guandu	beaches	5
Peuhaq	beaches	5
Marneuli	beaches	5
Sogcho	beaches	5

6. Get Lowest Average Amount Spent to Visit a 4 or 5-star Location

This is a great bang for your buck query. When traveling, doing everything you can to save money is critical to the success of a good trip. This query allows the client to see the highest-rated places to visit, which costs the least. If you can have a top tier vacation for a cheaper cost, why not do it?

```

SELECT
    dest_name AS Destination,
    rat_amt_spent AS Cost,
    rat_stars AS Rating
FROM
    DESTINATION,
    RATING
WHERE
    DESTINATION.dest_id = RATING.dest_ID
    AND (RATING.rat_stars = 4 OR RATING.rat_stars = 5)

```


GROUP BY DESTINATION.dest_name
order by RATING.rat_amt_spent;

DESTINATION	COST	RATING
Peuhaq	\$1,038	4
Konstantinovo	\$1,068	5
Indija	\$1,110	4
Karangsari	\$1,117	5
Stockholm	\$1,126	5
Västanfjärd	\$1,141	4
Juwana	\$1,247	4
Aanislæg	\$1,282	4
Maguwon	\$1,295	5
Champerico	\$1,531	5
Mërsrags	\$1,624	5

7. Top 5 Most Desired Travel Destinations with Recommendations

Create a query that displays the top-5 most desired travel destinations among all Globetrotter users. The output table also includes all types of recommendations to users

```

SELECT
    DESTINATION.dest_name AS Destination,
    FOOD_TYPE.food_name AS Rec_Food,
    HOTEL_BRAND.hotel_name AS Rec_Hotel,
    AIRLINE.air_name AS Rec_Airline,
    HIGHLIGHT.highlight_name AS Rec_Highlight,
    COUNT(DESIRED_DEST.dest_id) AS Times_Desired_Destination_Mentioned
FROM
    DESTINATION
    JOIN HOTEL_BRAND ON HOTEL_BRAND.hotel_id = DESTINATION.hotel_id
    JOIN AIRLINE ON AIRLINE.air_code = DESTINATION.air_code
    JOIN HIGHLIGHT ON HIGHLIGHT.highlight_id = DESTINATION.highlight_id

```

```

JOIN FOOD_TYPE ON FOOD_TYPE.food_id = DESTINATION.food_id
JOIN DESIRED_DEST ON DESIRED_DEST.dest_id = DESTINATION.dest_id
GROUP BY DESTINATION.dest_name
ORDER BY Times_Desired_Destination_Mentioned DESC
LIMIT 5;

```

DATA

Destination	Rec_Food	Rec_Hotel	Rec_Airline	Rec_Highlight	Times_Desired_Destination_Mentioned
Lincheng	soup	Walt Disney Resorts	Asiana Airlines Inc.	beaches	12
Sātkania	noodles	Walt Disney Resorts	Thai Airways International Ltd.	history	11
Dhidthhoo	curry	Hyatt Hotels	Jeju Air Co Ltd.	skiing	11
Baizhong	soup	Hotel Ibis	Compagnie Natl Air France	jungles	11
Västanfjärd	noodles	XIV	Hainan Airlines Company Limited	desert	10

8. Most Commonly Stayed With Hotels at Each Destination

Create a query that lists destinations and the most commonly stayed at hotels at that destination. Data is drawn from the RATING table. Each user lists what hotel users stayed at that destination.

```

SELECT
    t1.dest_id,
    d.dest_name AS Destination,
    t1.hotel_id,
    h.hotel_name AS `Hotel Name`,
    t1.numStays AS `# of Stays`
FROM(
    SELECT
        r.dest_id,
        dest_name,
        r.hotel_id,

```

```

        hotel_name,
        COUNT(*) AS numStays
    FROM RATING r
    JOIN DESTINATION d ON r.dest_id = d.dest_id
    JOIN HOTEL_BRAND h ON r.hotel_id = h.hotel_id
    GROUP BY dest_id, hotel_id
) t1
JOIN(
    SELECT
        dest_id,
        hotel_id,
        MAX(numStays) AS largestCount
    FROM(
        SELECT
            dest_id,
            hotel_id,
            COUNT(*) AS numStays
        FROM RATING
        GROUP BY dest_id, hotel_id) temp
    GROUP BY dest_id
) t2
ON t2.dest_id = t1.dest_id AND t2.largestCount = t1.numStays
JOIN DESTINATION d ON t1.dest_id = d.dest_id
JOIN HOTEL_BRAND h ON t1.hotel_id = h.hotel_id
ORDER BY t1.dest_id;

```

DATA TABLE AND ONLY INCLUDES FIRST 30 ROWS

dest_id	Destination	hotel_id	Hotel Name	# of Stays
1	København	3	Choice Hotels	5
2	Muurla	3	Choice Hotels	3
2	Muurla	6	Hyatt Hotels	3
2	Muurla	10	Westin	3
3	Starobin	2	Best Western	5
3	Starobin	5	Hilton	5
4	Daxi	9	Holiday Inn	4
5	Komsomolsk	3	Choice Hotels	8
6	Sogcho	1	Marriott	5
7	Los Rastrojos	1	Marriott	5
8	Zhuhu	7	MGM Resorts	5
9	Stuttgart	3	Choice Hotels	4
9	Stuttgart	7	MGM Resorts	4
10	Nowe Warpno	4	Four Seasons Hotels and Resorts	4
10	Nowe Warpno	7	MGM Resorts	4
10	Nowe Warpno	2	Best Western	4
10	Nowe Warpno	1	Marriott	4
11	Río Sereno	1	Marriott	4
11	Río Sereno	3	Choice Hotels	4
11	Río Sereno	4	Four Seasons Hotels and Resorts	4
11	Río Sereno	8	Walt Disney Resorts	4
12	Abreus	3	Choice Hotels	5
12	Abreus	10	Westin	5
13	Gradići	1	Marriott	4
14	Lyublino	1	Marriott	8
15	Champerico	1	Marriott	4
15	Champerico	2	Best Western	4
15	Champerico	3	Choice Hotels	4
16	Hanfeng	2	Best Western	6
16	Hanfeng	3	Choice Hotels	6

9. Get Destinations With All Recommendations

Create a query that displays destination names with recommended food, airline, hotel, and items not to forget.

```
SELECT
    DESTINATION.dest_name,
    food_name, air_name,
    hotel_name,
    item_name
FROM DESTINATION
    JOIN FOOD_TYPE  ON DESTINATION.food_id = FOOD_TYPE.food_id
    JOIN AIRLINE    ON DESTINATION.air_code = AIRLINE.air_code
    JOIN HOTEL_BRAND ON DESTINATION.hotel_id = HOTEL_BRAND.hotel_id
    JOIN (SELECT dest_name, item_name
          FROM DEST_ITEM di
            JOIN DESTINATION d ON d.dest_id = di.dest_id
            JOIN ITEM i      ON i.item_id = di.item_id) AS DI
    ON DESTINATION.dest_name = DI.dest_name
ORDER BY dest_name;
```

**DATA ON THE NEXT PAGE AND ONLY INCLUDES FIRST 30
ROWS OF THE TABLE**

dest_name	food_name	air_name	hotel_name	item_name
Aanislag	noodles	American Airlines Inc.	Radisson Blu	malaria medication
Aanislag	noodles	American Airlines Inc.	Radisson Blu	EU power adaptor
Aanislag	noodles	American Airlines Inc.	Radisson Blu	ice axe
Abreus	burgers	Aeromexico Travel	Waldorf Asotria	first-aid kit
Ágios Spyrídon	soup	Hainan Airlines Company Limited	Hotel Ibis	malaria medication
Ágios Spyrídon	soup	Hainan Airlines Company Limited	Hotel Ibis	swimsuit
Ágios Spyrídon	soup	Hainan Airlines Company Limited	Hotel Ibis	umbrella
Ágios Spyrídon	soup	Hainan Airlines Company Limited	Hotel Ibis	bug spray
Alcala	beer	Compagnie Natl Air France	MGM Resorts	EU power adaptor
Anle	curry	JetBlue Airways	MGM Resorts	warm sleeping bag
Anle	curry	JetBlue Airways	MGM Resorts	sunscreen
Artur Nogueira	wine	Alaska Airlines Inc.	Hilton	camera
Arvidsjaur	curry	Asiana Airlines Inc.	MGM Resorts	parka
Augsburg	wine	Jalways Co. Ltd.	Hilton	warm sleeping bag
Augsburg	wine	Jalways Co. Ltd.	Hilton	camera
Baixo Guandu	lamb	Delta Air Lines Inc.	Shangri-La	money belt
Baixo Guandu	lamb	Delta Air Lines Inc.	Shangri-La	fancy clothes
Baizhong	soup	Compagnie Natl Air France	Hotel Ibis	fancy clothes
Baizhong	soup	Compagnie Natl Air France	Hotel Ibis	scuba gear
Baizhong	soup	Compagnie Natl Air France	Hotel Ibis	anti-biotics
Buea	curry	Hainan Airlines Company Limited	Hilton	bug spray
Buea	curry	Hainan Airlines Company Limited	Hilton	binoculars
Buenos Aires	beef	Aeromexico Travel	XIV	sunscreen
Buenos Aires	beef	Aeromexico Travel	XIV	water filter
Champerico	vegan	Air Canada	Best Western	camera
Champerico	vegan	Air Canada	Best Western	ice axe
Daxi	spicy	Asiana Airlines Inc.	Novotel	malaria medication
Dhidhdhoo	curry	Jeju Air Co Ltd.	Hyatt Hotels	ice axe
Dhidhdhoo	curry	Jeju Air Co Ltd.	Hyatt Hotels	malaria medication
Duncan	vegan	Asiana Airlines Inc.	Waldorf Asotria	ice axe

10. Curry Loving Hiker Looking for a Cheap Travel Destination

Create a query that displays a table for a user who is looking for curry and hiking highlights but isn't looking to spend more than 2,200 dollars on the trip.

```
SELECT
  DESTINATION.dest_name AS Destination,
  FOOD_TYPE.food_name AS Food_Type,
```



```

HIGHLIGHT.highlight_name AS Travel_Highlight,
RATING.rat_amt_spent AS Travel_Expense
From
  DESTINATION
  JOIN FOOD_TYPE ON FOOD_TYPE.food_id = DESTINATION.food_id
  JOIN HIGHLIGHT ON HIGHLIGHT.highlight_id = DESTINATION.highlight_id
  JOIN RATING ON RATING.dest_id = DESTINATION.dest_id
Where
  FOOD_TYPE.food_name = 'curry'
  AND HIGHLIGHT.highlight_name = 'hiking'
  AND RATING.rat_amt_spent < 2200
GROUP BY DESTINATION.dest_name
Order By Travel_Expense DESC;

```

Data

Destination	Food_Type	Travel_Highlight	Travel_Expense
Hanjia	curry	hiking	2083

Milestone 2: Stored Procedures

1. New User Add Into Globetrotter Database

This allows a new user to sign up (in this case means to add personal info into our database) by entering in the new user's first and last name as well as city and birth country. This will insert a new row of user information into the "Member" table in the Globetrotter database.

```
DELIMITER //
CREATE DEFINER='admin'@'%' PROCEDURE `addNewMember`(
    IN m_id INT,
    IN m_fname VARCHAR(45),
    IN m_lname VARCHAR(45),
    IN m_city VARCHAR(45),
    IN m_country VARCHAR(2))
BEGIN
INSERT INTO MEMBER (member_id, member_fname, member_lname, member_city,
member_country)
VALUES (m_id, m_fname, m_lname, m_city, m_country);
END //
DELIMITER ;
```

Test Trail for inserting a new member into our Member table in our database:
call mydb.addNewMember(301, 'Xinyu', 'Qiu', 'Shanghai', 'Ch');
Output: new member is successfully added into Member Table.

2. Database Manager Collects User Rating Data on One Destination

This stored procedure allows the database manager or marketing department to understand the user's travel preferences as well as how to better recommend the next travel destination based on

the user's previous travel rating. This will show a list of user reviews (user_name, dest_name, rat_stars, rat_amt_spent, highlight_name, air_name, hotel_name, food_name)

```
DELIMITER //
CREATE DEFINER=`admin`@`%` PROCEDURE `getDestRating`(
    IN dest_n varchar(45)
)
BEGIN
SELECT
    CONCAT (MEMBER.member_fname, ' ', MEMBER.member_lname) AS User_Name,
    DESTINATION.dest_name AS Destination,
    RATING.rat_stars AS Rating,
    RATING.rat_amt_spent AS Trip_Expense,
    HIGHLIGHT.highlight_name AS Destination_Highlight,
    AIRLINE.air_name AS Airline,
    HOTEL_BRAND.hotel_name AS Destination_Hotel,
    FOOD_TYPE.food_name AS Destination_Recommended_Food
FROM
    RATING
    JOIN DESTINATION on DESTINATION.dest_id = RATING.dest_id
    JOIN HOTEL_BRAND on HOTEL_BRAND.hotel_id = RATING.hotel_id
    JOIN AIRLINE on AIRLINE.air_code = RATING.air_code
    Join HIGHLIGHT ON HIGHLIGHT.highlight_id = RATING.highlight_id
    Join MEMBER on MEMBER.member_id = RATING.member_id,
    DESTINATION d
    Join FOOD_TYPE on FOOD_TYPE.food_id = d.food_id
WHERE DESTINATION.dest_name =
    (SELECT DESTINATION.dest_name
    From DESTINATION
    WHERE DESTINATION.dest_name = dest_n)
GROUP BY User_Name
ORDER BY Trip_Expense DESC;
END //
DELIMITER ;
```

Test trial for checking all users' reviews on 'Daxi'.

Output: It will display a table of user review results in the descending order of travel expenses.

OUTPUT ON THE NEXT PAGE

User_Name	Destination	Rating	Trip_Expense	Destination_Highlight	Airline	Destination_Hotel	Destination_Recommended_Food
Tami Stannas	Daxi	4	2967	surfing	American Airlines Inc.	Marriott	spicy
Melania Prescott	Daxi	1	2915	jungles	Air China	Holiday Inn	spicy
Orbadiah Bickerton	Daxi	2	2714	skiing	Hawaiian Airlines Inc.	Copthome Hotels	spicy
Linzy Joney	Daxi	2	2584	musicals	JetBlue Airways	Walt Disney Resorts	spicy
Brigham Flye	Daxi	3	2465	desert	Asiana Airlines Inc.	Radisson Blu	spicy
Jedd Blueman	Daxi	3	2457	desert	Air China	MGM Resorts	spicy
Cele Truran	Daxi	5	2374	jungles	JetBlue Airways	Choice Hotels	spicy
Conni Sayers	Daxi	2	2362	skiing	Compagnie Natl Air France	Hilton	spicy
Neda Clohessy	Daxi	2	2239	musicals	Air China	Holiday Inn	spicy
Christal Stenhouse	Daxi	3	2198	surfing	JetBlue Airways	Hilton	spicy
Ruperta Wayland	Daxi	2	2110	beaches	Compagnie Natl Air France	Four Seasons Hotels and Resorts	spicy
Parnnell Sansun	Daxi	5	1977	desert	American Airlines Inc.	Marriott	spicy
Merilee Muirden	Daxi	3	1577	museums	American Airlines Inc.	Best Western	spicy
Aura Ratcliffe	Daxi	5	1521	history	Jeju Air Co Ltd.	Choice Hotels	spicy
Myca Burke	Daxi	1	1411	beaches	British Airways Plc	Marriott	spicy
Berte Alfvy	Daxi	5	1397	jungles	United Air Lines Inc.	Novotel	spicy
Rudolph Trulock	Daxi	4	1370	coral reefs	American Airlines Inc.	Walt Disney Resorts	spicy
Haven Cowlin	Daxi	3	1282	mountains	Air China	Four Seasons Hotels and Resorts	spicy
Ty Wheelband	Daxi	5	1247	food	British Airways Plc	Holiday Inn	spicy
Kermy Cullingford	Daxi	1	1243	desert	British Airways Plc	Holiday Inn	spicy
Aurie Ladon	Daxi	3	1135	musicals	United Air Lines Inc.	Embassy Suites	spicy
Jerrie Newstead	Daxi	5	1048	swimming	Compagnie Natl Air France	Westin	spicy
Conni Ratnege	Daxi	3	1041	music	Air China	Best Western	spicy
Andree Gorden	Daxi	5	1017	jungles	Compagnie Natl Air France	Choice Hotels	spicy

Milestone 2: ER Diagram

