

SQL PROJECT

Happy Destinations – Travel Itinerary Planner.

Abstract:-

A travel itinerary planner is a software application designed to assist travellers in organizing and managing their trips efficiently. It serves as a digital assistant, helping travellers create, customize, and optimize their travel plans. The primary goal of a travel itinerary planner is to enhance the overall travel experience by simplifying the complex task of itinerary creation. A travel itinerary planner aims to simplify the logistics of travel, enhance the travel experience, and reduce the stress associated with trip planning. It empowers travellers to make the most of their journeys by offering a convenient and centralized platform for organizing all aspects of their trips.



❖ Aim of Project:–

The aim of an SQL project for a travel itinerary planner is to design and implement a database system that allows users to efficiently plan and manage their travel itineraries. This project involves creating a relational database using SQL (Structured Query Language) and possibly other related technologies, such as a programming language for the user interface and back-end logic. The ultimate goal of this SQL project is to create a robust and user-friendly travel itinerary planner that helps travellers efficiently organize and enjoy their trips. It should be a versatile platform that caters to the diverse needs of travellers, from leisure tourists to business travellers.

❖ Objective of project: –

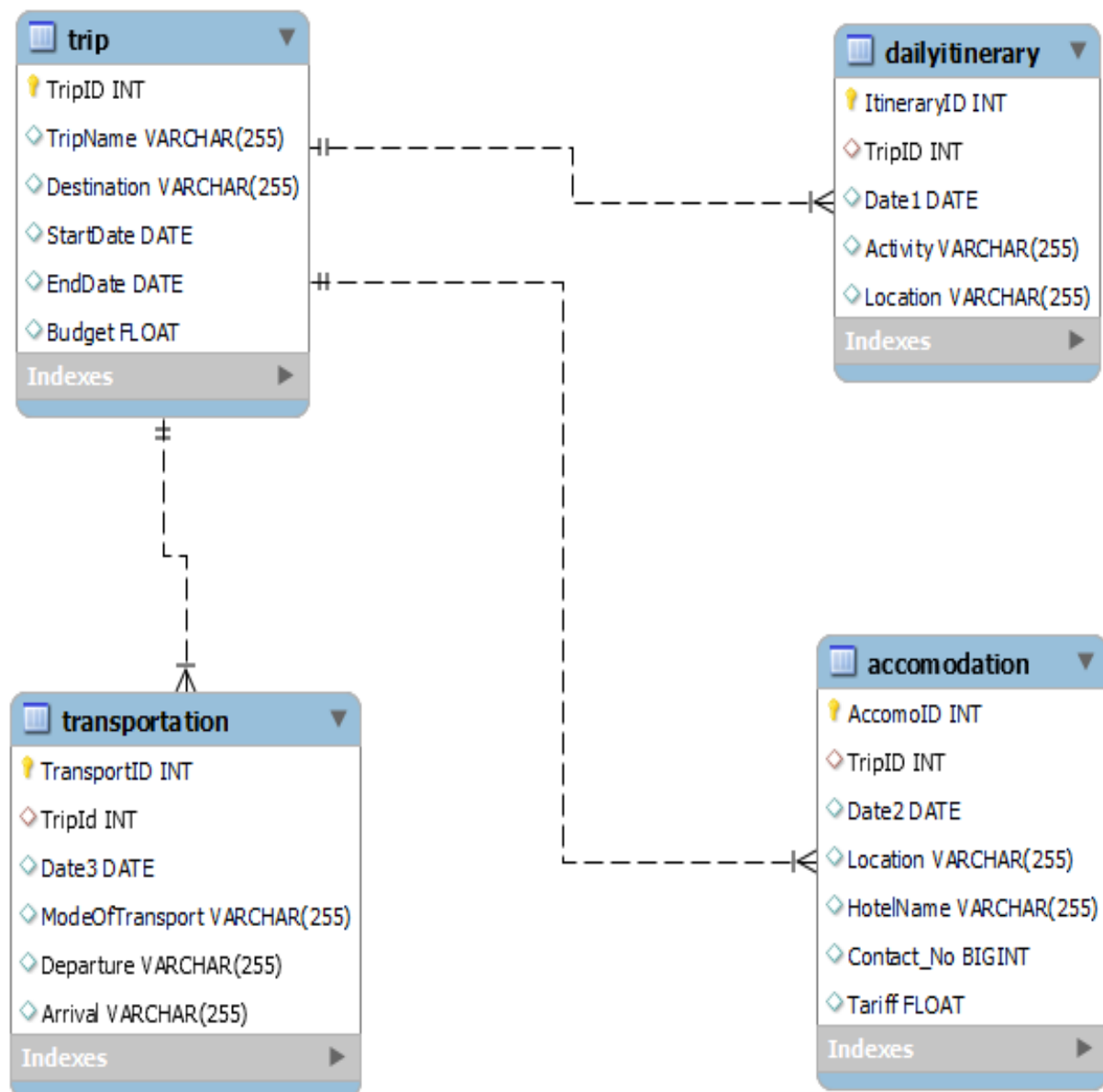
The objectives of a project for a travel itinerary planner are to define the specific goals and outcomes you want to achieve when creating such a system. These objectives help guide the project's scope, development, and success criteria. Here are some common objectives for a travel itinerary planner project:

- **User-Friendly Interface:** Create an intuitive and user-friendly interface that allows travellers of all levels of tech-savviness to easily input and manage their travel details.
- **Itinerary Creation:** Enable users to create, edit, and delete travel itineraries based on their destinations, dates, and preferences.
- **Activity Recommendations:** Offer recommendations for activities and attractions at each destination based on user preferences, such as adventure, relaxation, cultural experiences, etc.
- **Accommodation Booking:** Allow users to search for and book accommodations that suit their preferences and budget. users to make informed decisions.

❖ Introduction-

In today's fast-paced world, travel has become an integral part of our lives, whether it's for leisure, business, or exploration. However, planning a trip can often be a complex and time-consuming task, involving various aspects such as destination research, booking accommodations, scheduling activities, managing budgets, and more. This is where a travel itinerary planner comes into play.



ER Diagram:-



STRUCTURE OF TABLES



1. Trip:

⇒ DESC Trip;

Result Grid			Filter Rows:	<input type="text"/>	Export:		Wrap Cell Co
	Field	Type	Null	Key	Default	Extra	
▶	TripID	int	NO	PRI	NULL	auto_increment	
	TripName	varchar(255)	YES		NULL		
	Destination	varchar(255)	YES		NULL		
	StartDate	date	YES		NULL		
	EndDate	date	YES		NULL		



2. Daily Itinerary:

⇒ DESC DailyItinerary;

Result Grid		 Filter Rows: <input type="text"/>	Export: 	Wrap Cell Co		
	Field	Type	Null	Key	Default	Extra
▶	ItineraryID	int	NO	PRI	NULL	auto_increment
	TripID	int	YES	MUL	NULL	
	Date1	date	YES		NULL	
	Activity	varchar(255)	YES		NULL	
	Location	varchar(255)	YES		NULL	



3. Accommodation:

⇒ DESC Accommodation;

Result Grid			Filter Rows: <input type="text"/>	Export: 	Wrap Cell Cont	
	Field	Type	Null	Key	Default	Extra
▶	AccomoID	int	NO	PRI	NULL	auto_increment
	TripID	int	YES	MUL	NULL	
	Date2	date	YES		NULL	
	Location	varchar(255)	YES		NULL	
	HotelName	varchar(255)	YES		NULL	

4. Transportation:

⇒ DESC Transportation;

Result Grid			Filter Rows:	<input type="text"/>	Export:		Wrap Cell Content:
	Field	Type	Null	Key	Default	Extra	
▶	TransportID	int	NO	PRI	NULL	auto_increment	
	TripId	int	YES	MUL	NULL		
	Date3	date	YES		NULL		
	ModeOfTransport	varchar(255)	YES		NULL		
	Departure	varchar(255)	YES		NULL		

Contents of Tables

1. Trip:

⇒ **SELECT * FROM Trip;**

Result Grid		Filter Rows:	Edit:	Export/Import:	Wrap Cell Content
TripID	TripName	Destination	StartDate	EndDate	Budget
101	Char Dham Yatra	Haridwar,Gangotri,Yamunotri,Badrinath,Kedarn...	2023-01-15	2023-01-30	35000
102	Ladakh Tour	Leh,Nubra,Pangong	2023-09-20	2023-09-26	30000
103	Kerala Tour	Bengaluru,Coorg,Wayanad	2024-01-05	2024-01-10	50000
104	Kashmir Tour	Srinagar,Gulmarg,Pahalgam	2024-04-13	2024-04-18	75000
105	Rajasthan Tour	Jaipur,Jodhpur,Udaipur,Pushkar	2024-12-05	2024-12-15	25000

2. Daily Itinerary:

⇒ **SELECT * FROM DailyItinerary;**

Result Grid		Filter Rows:		Edit:	Export/Import:
	ItineraryID	TripID	Date1	Activity	Location
▶	1	101	2023-01-15	Sight seeing	Haridwar
	2	101	2023-01-17	Temple visiting, Water Falls	Gangotri
	3	101	2023-01-18	Temple visting	Yamunotri
	4	101	2023-01-20	Trekking,Sight seeing,Temple visiting	Kedarnath
	5	102	2023-09-27	Biking,Trekking	Leh

3. Accommodation:

⇒ **SELECT * FROM Accommodation;**

Result Grid

Filter Rows:






Edit:

Export/Import:

	AccomoID	TripID	Date2	Location	HotelName	Contact_No	Tariff
▶	100	103	2024-01-08	Wayanad	Pind Da Home Stay	9933442255	NULL
	111	101	2023-01-15	Haridwar	The Royal Palace	8899007788	2000
	222	101	2023-01-17	Gangotri	Rupa Home Stay	7766553388	1500
	333	101	2023-01-18	Yamunotri	Grand Hotels	6655778844	3500
	444	101	2023-01-20	Kedarnath	Dharmashala	9988776655	500

4. Transportation:

⇒ **SELECT * FROM Transportation;**

Result Grid				Filter Rows:	Edit:			Export/Import
	TransportID	TripID	Date3	ModeOfTransport	Departure	Arrival		
	1	101	2023-01-15	Car	Haridwar	Gangotri		
	2	101	2023-01-17	Horse Ride	Gangotri	Yamunotri		
	3	101	2023-01-18	Local Bus	Yamunotri	Kedarnath		
	4	101	2023-01-20	Car	Kedarnath	Haridwar		
	5	102	2023-09-27	Bike Ride	Leh	Nubra		

Queries


```
⇒ ALTER TABLE Accommodation  
ADD COLUMN Tariff Float;
```

2. Insert Values inside the Tariff column in the existing table 'Accommodation' where hotel name is Grand Hotels.

SET Tariff=3500

Result Grid		Filter Rows:		Edit:		Export/Import:	
	AccomoID	TripID	Date2	Location	HotelName	Contact_No	Tariff
▶	100	103	2024-01-08	Wayanad	Pind Da Home Stay	9933442255	NULL
	111	101	2023-01-15	Haridwar	The Royal Palace	8899007788	NULL
	222	101	2023-01-17	Gangotri	Rupa Home Stay	7766553388	NULL
	333	101	2023-01-18	Yamunotri	Grand Hotels	6655778844	3500
	444	101	2023-01-20	Kedarnath	Dharmashala	9988776655	NULL

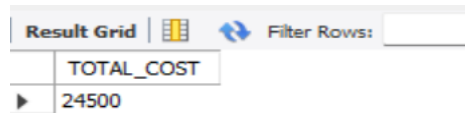
⇒ SELECT *

WHERE Tariff=3500;

[illegible]

4. Display the total cost of accommodation in Whole trip of Char Dham Yatra.

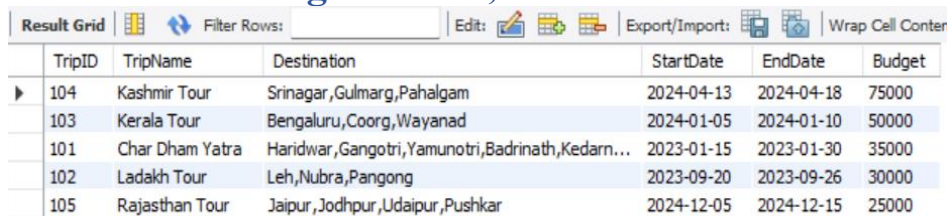
⇒ **SELECT SUM(Tariff)
AS TOTAL_COST
FROM Accommodation;**



TOTAL_COST
24500

5. Display all the tours from Expensive to Cheapest in budget .

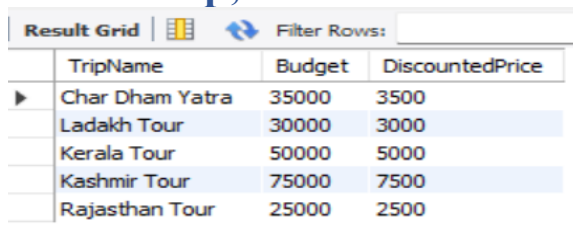
⇒ **SELECT *
FROM Trip
ORDER BY Budget DESC;**



TripID	TripName	Destination	StartDate	EndDate	Budget
104	Kashmir Tour	Srinagar,Gulmarg,Pahalgam	2024-04-13	2024-04-18	75000
103	Kerala Tour	Bengaluru,Coorg,Wayanad	2024-01-05	2024-01-10	50000
101	Char Dham Yatra	Haridwar,Gangotri,Yamunotri,Badrinath,Kedarn...	2023-01-15	2023-01-30	35000
102	Ladakh Tour	Leh,Nubra,Pangong	2023-09-20	2023-09-26	30000
105	Rajasthan Tour	Jaipur,Jodhpur,Udaipur,Pushkar	2024-12-05	2024-12-15	25000

6. Calculate the Discounted Price of Trip With 10% Off.

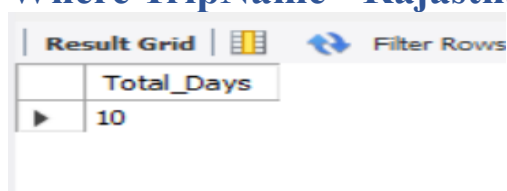
⇒ **SELECT TripName,Budget,
Budget*0.10
AS DiscountedPrice
FROM Trip;**



TripName	Budget	DiscountedPrice
Char Dham Yatra	35000	3500
Ladakh Tour	30000	3000
Kerala Tour	50000	5000
Kashmir Tour	75000	7500
Rajasthan Tour	25000	2500

7. Find the total number of days in Rajasthan Tour.

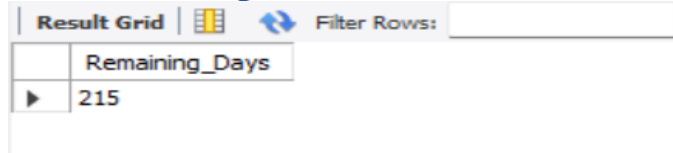
⇒ **SELECT SUM(datediff(EndDate,StartDate))
AS Total_Days
FROM Trip
Where TripName='Rajasthan Tour';**



Total_Days
10

8. Display how many days are remaining for Kashmir Tour from today.

⇒ **SELECT datediff(StartDate, CURDATE())
AS Remaining_Days
FROM Trip
WHERE TripName='Kashmir Tour';**

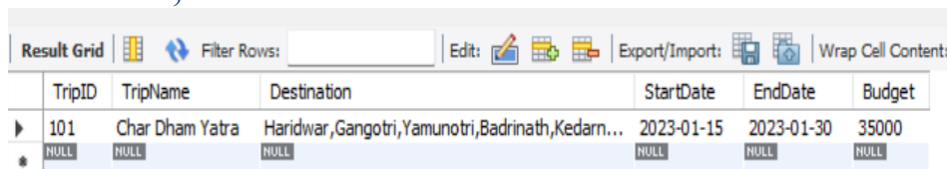


The screenshot shows a database interface with a 'Result Grid' tab. It contains a single row with the column 'Remaining_Days' and the value '215'.

Remaining_Days
215

9. Display the most latest trip.

⇒ **SELECT *
FROM Trip
ORDER BY StartDate
ASC
LIMIT 1;**

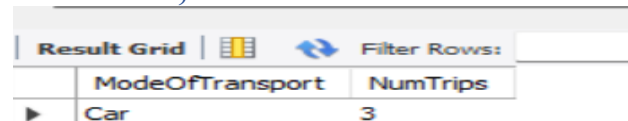


The screenshot shows a database interface with a 'Result Grid' tab. It displays a table with columns: TripID, TripName, Destination, StartDate, EndDate, and Budget. The first row shows TripID 101, TripName 'Char Dham Yatra', Destination 'Haridwar, Gangotri, Yamunotri, Badrinath, Kedarn...', StartDate '2023-01-15', EndDate '2023-01-30', and Budget '35000'. A second row with all NULL values is also visible.

TripID	TripName	Destination	StartDate	EndDate	Budget
101	Char Dham Yatra	Haridwar, Gangotri, Yamunotri, Badrinath, Kedarn...	2023-01-15	2023-01-30	35000
NULL	NULL	NULL	NULL	NULL	NULL

10. Display the most common mode of transport.

⇒ **SELECT ModeOfTransport,
COUNT(*)
AS NumTrips
FROM Transportation
GROUP BY ModeOfTransport
ORDER BY NumTrips
DESC
LIMIT 1;**



The screenshot shows a database interface with a 'Result Grid' tab. It displays a table with columns: ModeOfTransport and NumTrips. The first row shows ModeOfTransport 'Car' and NumTrips '3'.

ModeOfTransport	NumTrips
Car	3

11. Display all trips along with their daily activities.



⇒ **SELECT T.TripName, D.Date1,D.Activity**
FROM Trip T
JOIN DailyItinerary D
ON T.TripID = D.TripID;

Result Grid	Filter Rows:	Export:	Wrap
	TripName	Date1	Activity
▶	Char Dham Yatra	2023-01-15	Sight seeing
	Char Dham Yatra	2023-01-17	Temple visiting, Water Falls
	Char Dham Yatra	2023-01-18	Temple visting
	Char Dham Yatra	2023-01-20	Trekking,Sight seeing,Temple visiting
	Ladakh Tour	2023-09-27	Biking,Trekking
	Ladakh Tour	2023-09-28	Mountain views
	Ladakh Tour	2023-09-29	Camp tent,Bonfire
	Kerala Tour	2024-01-06	Meadow views
	Kerala Tour	2024-01-07	Spices Extraction Point
	Kerala Tour	2024-01-08	Water Fall

12. Display a list of trips with their Transportation.


⇒ **SELECT T.TripName, M.Date3,M.Departure,M.Arrival**
FROM Trip T
JOIN Transportation M
ON T.TripID = M.TripID;

Result Grid

Filter Rows:

Export:



	TripName	Date3	Departure	Arrival
▶	Char Dham Yatra	2023-01-15	Haridwar	Gangotri
	Char Dham Yatra	2023-01-17	Gangotri	Yamunotri
	Char Dham Yatra	2023-01-18	Yamunotri	Kedarnath
	Char Dham Yatra	2023-01-20	Kedarnath	Haridwar
	Ladakh Tour	2023-09-27	Leh	Nubra
	Ladakh Tour	2023-09-28	Nubra	Pangong
	Ladakh Tour	2023-09-29	Pangong	Leh
	Kerala Tour	2024-01-06	Bengaluru	Coorg
	Kerala Tour	2024-01-07	Coorg	Wayanad
	Kerala Tour	2024-01-08	Wayanad	Bengaluru

13. Display trips with accommodations costing more than a specified amount

```
⇒ SELECT T.TripName, A.Date2, A.HotelName, A.Location,
A.Tariff
FROM Trip T
LEFT OUTER JOIN Accomodation A
ON T.TripID = A.TripID
WHERE A.Tariff > 500;
```

	TripName	Date2	HotelName	Location	Tariff
▶	Kerala Tour	2024-01-08	Pind Da Home Stay	Wayanad	1500
	Char Dham Yatra	2023-01-15	The Royal Palace	Haridwar	2500
	Char Dham Yatra	2023-01-17	Rupa Home Stay	Gangotri	2000
	Char Dham Yatra	2023-01-18	Grand Hotels	Yamunotri	3500
	Ladakh Tour	2023-09-27	Bootcamp Tents	Leh	1000
	Ladakh Tour	2023-09-28	Galaxy Hotels	Nubra	4000
	Ladakh Tour	2023-09-29	Campaign Home stay	Pangong	3000
	Kerala Tour	2024-01-06	Navratna Palace	Bengaluru	5000
	Kerala Tour	2024-01-07	Sadguru Dharmashala	Coorg	1500

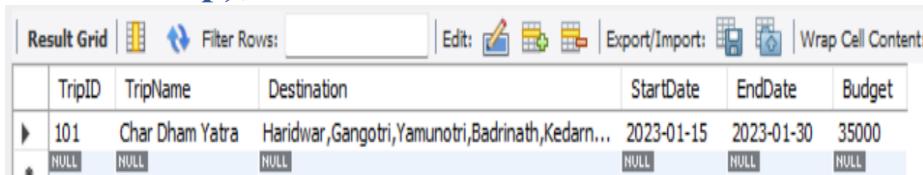
14. Display a list of trips with their daily activities and transportation mode.

```
⇒ SELECT T.TripName, D.Date1, D.Activity,
M.ModeOfTransport
FROM Trip T
JOIN DailyItinerary D
ON T.TripID = D.TripID
LEFT JOIN Transportation M
ON T.TripID = M.TripID
AND D.Date1 = M.Date3;
```

	TripName	Date1	Activity	ModeOfTransport
▶	Char Dham Yatra	2023-01-15	Sight seeing	Car
	Char Dham Yatra	2023-01-17	Temple visiting, Water Falls	Horse Ride
	Char Dham Yatra	2023-01-18	Temple visting	Local Bus
	Char Dham Yatra	2023-01-20	Trekking, Sight seeing, Temple visiting	Car
	Ladakh Tour	2023-09-27	Biking, Trekking	Bike Ride
	Ladakh Tour	2023-09-28	Mountain views	Car
	Ladakh Tour	2023-09-29	Camp tent, Bonfire	Local Bus
	Kerala Tour	2024-01-06	Meadow views	Train
	Kerala Tour	2024-01-07	Spices Extraction Point	AC Bus
	Kerala Tour	2024-01-08	Water Fall	Train

15. Display a list of trips with the most recent end date.

```
⇒ SELECT *  
FROM Trip  
WHERE EndDate =  
(SELECT Min(EndDate)  
FROM Trip);
```




The screenshot shows a database result grid with the following data:

TripID	TripName	Destination	StartDate	EndDate	Budget
101	Char Dham Yatra	Haridwar, Gangotri, Yamunotri, Badrinath, Kedarnath	2023-01-15	2023-01-30	35000
NULL	NULL	NULL	NULL	NULL	NULL

16. Calculate the total number of daily activities for each trip.

```
⇒ SELECT TripName,  
(SELECT COUNT(*)  
FROM DailyItinerary D  
WHERE D.TripID = T.TripID)  
AS NumActivities  
FROM Trip T;
```

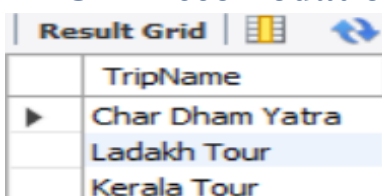


The screenshot shows a database result grid with the following data:

TripName	NumActivities
Char Dham Yatra	4
Ladakh Tour	3
Kerala Tour	3
Kashmir Tour	0
Rajasthan Tour	0

17. Display trips where accommodation costs are greater than the average accommodation cost for all trips.

```
⇒ SELECT TripName FROM Trip  
WHERE TripID  
IN (SELECT TripID  
FROM Accommodation  
WHERE Tariff >  
(SELECT AVG(Tariff)  
FROM Accommodation));
```



The screenshot shows a database result grid with the following data:

TripName
Char Dham Yatra
Ladakh Tour
Kerala Tour


18. Display the trip which has the most daily activities.

```
⇒ SELECT T.TripName,  
      (SELECT COUNT(*)  
       FROM DailyItinerary D  
       WHERE D.TripID = T.TripID)  
      AS NumActivities  
FROM Trip T  
ORDER BY NumActivities  
DESC  
LIMIT 1;
```

Result Grid		Filter Rows:
	TripName	NumActivities
▶	Char Dham Yatra	4

19. Display the trips with accomodation costs greater than 1000

```
⇒ SELECT Destination  
FROM Trip  
WHERE TripID IN  
(SELECT TripID  
FROM Accomodation  
WHERE Tariff > 1000);
```

Result Grid			Filter Rows:	
	Destination			
▶	Haridwar,Gangotri,Yamunotri,Badrinath,Kedarn...			
	Leh,Nubra,Pangong			
	Bengaluru,Coorg,Wayanad			

20. Display a list of trips with their daily activities and corresponding to transportation records.

```
⇒ SELECT T.TripName,  
       D.Location,D.Date1,D.Activity,M.ModeOfTransport  
FROM Trip T  
JOIN DailyItinerary D  
ON T.TripID = D.TripID  
LEFT JOIN Transportation M  
ON T.TripID = M.TripID  
AND D.Date1 = M.Date3;
```

Result Grid		Filter Rows:		Export:	Wrap Cell Content:
	TripName	Location	Date1	Activity	ModeOfTransport
▶	Char Dham Yatra	Haridwar	2023-01-15	Sight seeing	Car
	Char Dham Yatra	Gangotri	2023-01-17	Temple visiting, Water Falls	Horse Ride
	Char Dham Yatra	Yamunotri	2023-01-18	Temple visting	Local Bus
	Char Dham Yatra	Kedarnath	2023-01-20	Trekking,Sight seeing,Temple visiting	Car
	Ladakh Tour	Leh	2023-09-27	Biking,Trekking	Bike Ride
	Ladakh Tour	Nubra	2023-09-28	Mountain views	Car
	Ladakh Tour	Pangong	2023-09-29	Camp tent,Bonfire	Local Bus
	Kerala Tour	Bengaluru	2024-01-06	Meadow views	Train
	Kerala Tour	Coorg	2024-01-07	Spices Extraction Point	AC Bus
	Kerala Tour	Wayanad	2024-01-08	Water Fall	Train