
DBMS Assignment-1

“Tour-and-travels management system”

Group 13

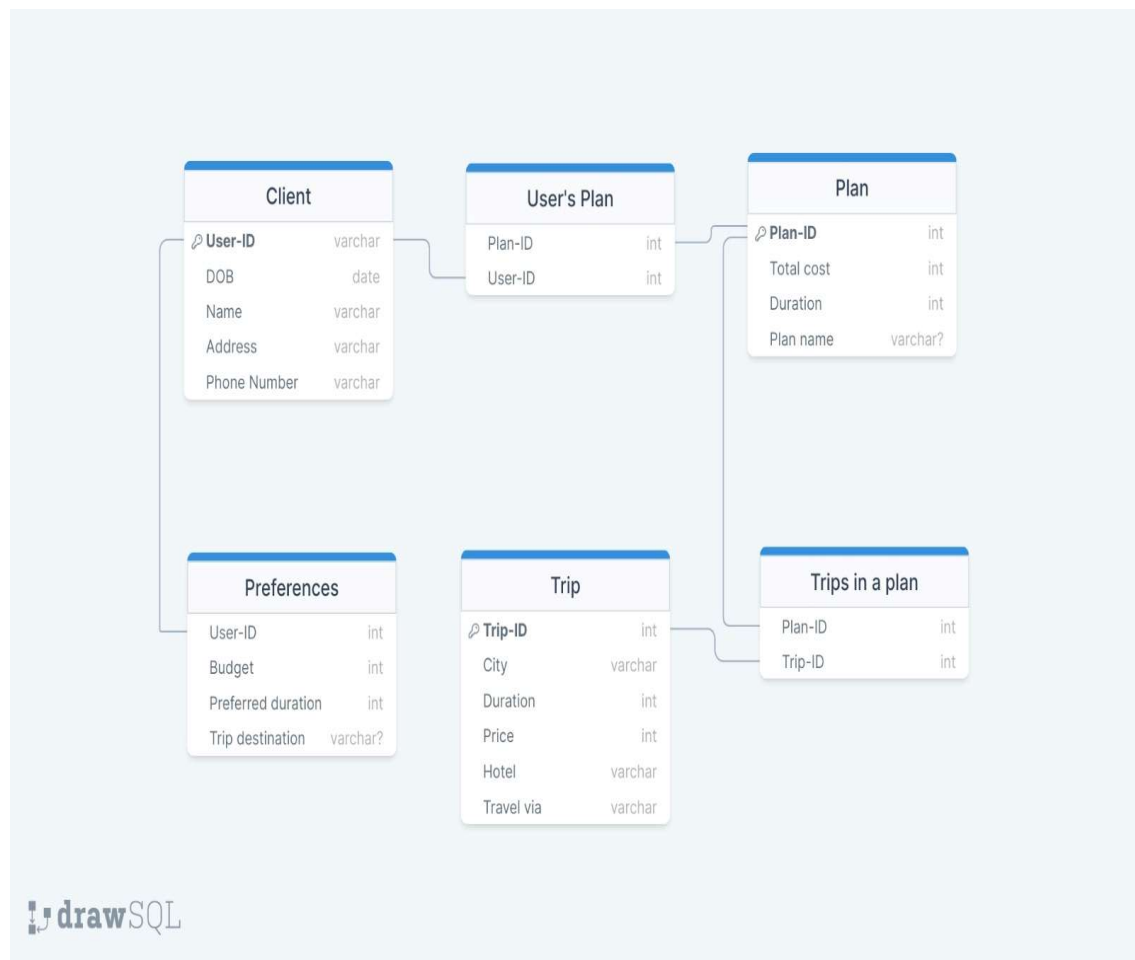
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Contents:-

- 1) Schema Diagram
 - 2) ER-Diagram
 - 3) Code for Database Creation and Value Insertion
 - 4) Tables after value insertion
 - 5) Queries on the created Database
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Schema Diagram:-



There are a total of 6 tables that are being used to implement the entire database. The 6 tables include the:-

- 1) Client Table – This table stores the details of all the registered users who can avail of a tour plan of their choice.
- 2) User's Plan - This table is an intermediate table that denotes the tour plans that a given user is willing to avail. (For eg: A

tourist named X can avail a tour plan of Rajasthan as well as all pilgrimage places in central India).

- 3) Plan Table – This table comprises all the pre-planned tours of the tour agency from which the users are free to select any of their desired packages.
- 4) Trip Table – This table contains the details of all the individual trips that may be included in a plan.
- 5) Trips in a Plan – This table gives us information regarding all the trips that are present in individual plans.
- 6) Preferences Table – This table contains the travel preferences of the registered users so that the owner of the tour agency may plan a trip based on the preference of the users.

Primary Keys:-

User-Id (Client Table) – To differentiate between distinct users.

Plan-Id (Plan Table) – To differentiate between distinct plans.

Trip-Id (Trip Table) – To identify the different trips that can be allocated to individual plans.

Foreign Keys:-

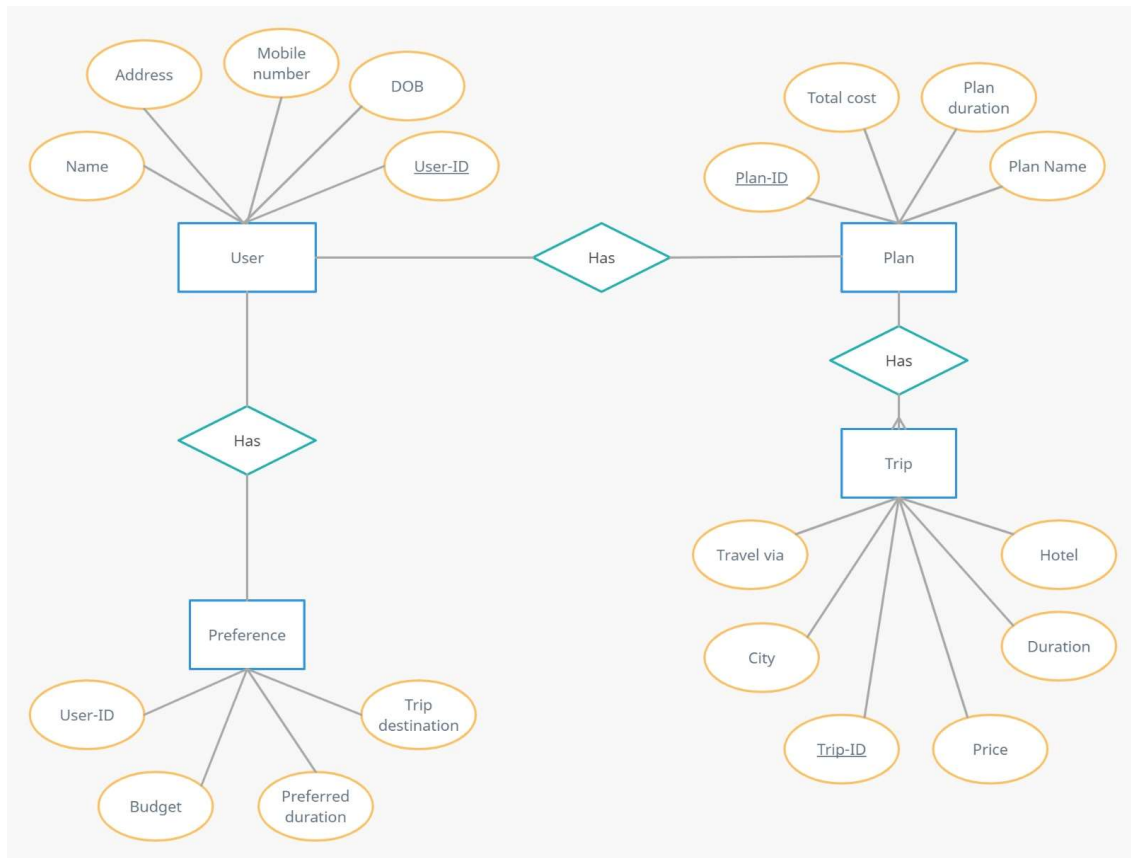
User-Id in “preferences table” – These references the User-id in the Client Table so that the travel preference can be linked to the user.


User Id & Trip Id in “User’s Plan” – The User’s plan table links the desired plan of a user with the clients thus it requires the User Id and the desired Trip Id to uniquely define this relation.

Plan Id & Trip Id from “Trips in a Plan table” – A plan comprises multiple trips. To create this mapping the plan-id and the trip-id is


utilized as the foreign key that has been referenced from the Plan table and trip table respectively.

ER-Diagram:-



 This shape represents the attributes of an entity.

 This represents the entities.

 This represents the type of relationship.

Code:-

Code for database creation:-

```
create table client (  
    UserID number primary key,  
    Name varchar2(10) not null,  
    DOB date,  
    Address varchar2(10),  
    PhoneNo varchar2(10)  
);
```

```
create table plan (  
    PlanID number primary key,  
    PlanName varchar2(10) not null,  
    Duration number,  
    TotalCost number  
);
```

```
create table users_plan (  
    UserID number,  
    PlanID number,  
    foreign key (UserID) references client (UserID),  
    foreign key (PlanID) references plan (PlanID)  
);
```

```
create table preferences (  
    UserID number,  
    Trip_destination varchar2(10),
```

```
        Preferred_duration number,  
        Budget number,  
        foreign key(UserId) references client(UserID)  
    );
```

```
create table trip (  
    TripId number primary key,  
    City varchar2(10),  
    Duration number,  
    Travel_via varchar2(10),  
    Hotel varchar2(10),  
    Price number  
);
```

```
create table trips_in_a_plan (  
    PlanId number,  
    TripID number,  
    foreign key (PlanId) references plan(PlanId),  
    foreign key (TripID) references trip(TripId)  
);  
  
alter table client add unique (phoneno);
```

Code for value insertion:-

```
insert into client values(1,'Aryan',to_date('10-10-1990','dd-mm-yyyy'), 'Bhopal','9876543210');  
insert into client values(2,'Bob',to_date('10-12-2002','dd-mm-yyyy'), 'Akola','1231231230');  
insert into client values(3,'Cynthia',to_date('06-06-1806','dd-mm-yyyy'),'Dinhata','7897897890');  
insert into client values(4,'Drake',to_date('08-07-2000','dd-mm-yyyy'),'Kochi','4564564560');  
insert into client values(5,'Emma',to_date('12-12-1999','dd-mm-yyyy'),'Kashimir','1234567890');
```

```

insert into client values(6,'Farukh',to_date('07-07-1997','dd-mm-yyyy'),'Jaipur','2345678910');
insert into client values(7,'George',to_date('08-08-1998','dd-mm-yyyy'),'Bhopal','3456789120');
insert into client values(8,'Hayato',to_date('09-09-1999','dd-mm-yyyy'),'Shillong','4567891230');
insert into client values(9,'Issac',to_date('10-10-1983','dd-mm-yyyy'),'Bhopal','5678912340');
insert into client values(10,'Jinam',to_date('11-11-1990','dd-mm-yyyy'),'Prayagraj','6789123450');

```

```

insert into plan values(1,'N-Ind_Tour',10,20000);
insert into plan values(2,'S-Ind_Tour',15,40000);
insert into plan values(3,'RJ_Tour',7,15000);
insert into plan values(4,'Varanasi',10,25000);
insert into plan values(5,'Goa',15,80000);
insert into plan values(6,'NE_Tour',10,20000);

```

```

insert into trip values(1,'Delhi',4,'Bus','Taj',10000);
insert into trip values(2,'Chandigarh',3,'Train','Radi',5000);
insert into trip values(3,'Jalandar',3,'Flight','Rogger',5000);
insert into trip values(4,'Mysuru',5,'Bus','Taj',20000);
insert into trip values(5,'Madhurai',5,'Train','Radi',10000);
insert into trip values(6,'Chennai',5,'Flight','Taj',10000);
insert into trip values(7,'Ajmer',4,'Bus','Nas',10000);
insert into trip values(8,'Jaipur',3,'Train','Taj',5000);
insert into trip values(9,'Lucknow',4,'Bus','Taj',10000);
insert into trip values(10,'Kanpur',4,'Train','Wisten',10000);
insert into trip values(11,'Varanasi',2,'Flight','Mandarin',5000);
insert into trip values(12,'Panaji',5,'Flight','Taj',40000);
insert into trip values(13,'Ponda',5,'Flight','Roggers',20000);
insert into trip values(14,'Agonda',5,'Flight','Mandarin',20000);
insert into trip values(15,'Imphal',4,'Flight','Mandarin',10000);
insert into trip values(16,'Guwahati',4,'Flight','Taj',5000);
insert into trip values(17,'Nagaland',2,'Flight','Mandarin',5000);

```

```
insert into preferences values(1,'Ajmer',5, 10000);
insert into preferences values(2,'Delhi',10, 20000);
insert into preferences values(3,'Lucknow',5, 30000);
insert into preferences values(4,'Varanasi',7, 20000);
insert into preferences values(5,'Delhi',10, 20000);
insert into preferences values(6,'Lucknow',10, 40000);
insert into preferences values(7,'Chennai',5, 50000);
insert into preferences values(8,'Delhi',10, 30000);
insert into preferences values(10,'Kanpur',10, 40000);
```

```
insert into users_plan values(1,1);
insert into users_plan values(2,1);
insert into users_plan values(3,1);
insert into users_plan values(1,2);
insert into users_plan values(4,2);
insert into users_plan values(5,2);
insert into users_plan values(1,3);
insert into users_plan values(6,3);
insert into users_plan values(7,3);
insert into users_plan values(9,5);
insert into users_plan values(10,6);
```

```
insert into trips_in_a_plan values(1,1);
insert into trips_in_a_plan values(1,2);
insert into trips_in_a_plan values(1,3);
insert into trips_in_a_plan values(2,4);
insert into trips_in_a_plan values(2,5);
insert into trips_in_a_plan values(2,6);
insert into trips_in_a_plan values(3,7);
insert into trips_in_a_plan values(3,8);
insert into trips_in_a_plan values(4,9);
```



```

insert into trips_in_a_plan values(4,10);
insert into trips_in_a_plan values(4,11);
insert into trips_in_a_plan values(5,12);
insert into trips_in_a_plan values(5,13);
insert into trips_in_a_plan values(5,14);
insert into trips_in_a_plan values(6,15);
insert into trips_in_a_plan values(6,16);
insert into trips_in_a_plan values(6,17);

```

Table description and tables after value insertion:-

describe client;

Name	Null?	Type

USERID	NOT NULL	NUMBER
NAME	NOT NULL	VARCHAR2(10)
DOB		DATE
ADDRESS		VARCHAR2(10)
PHONENO		VARCHAR2(10)

describe plan;

Name	Null?	Type

PLANID	NOT NULL	NUMBER
PLANNAME	NOT NULL	VARCHAR2(10)
DURATION		NUMBER
TOTALCOST		NUMBER

describe users_plan;

Name	Null?	Type

USERID		NUMBER
PLANID		NUMBER

describe preferences;

Name	Null?	Type

USERID		NUMBER
TRIP_DESTINATION		VARCHAR2(10)
PREFERRED_DURATION		NUMBER
BUDGET		NUMBER

describe trip;

Name	Null?	Type

TRIPID	NOT NULL	NUMBER
CITY		VARCHAR2(10)
DURATION		NUMBER
TRAVEL_VIA		VARCHAR2(10)
HOTEL		VARCHAR2(10)
PRICE		NUMBER

describe trips_in_a_plan;

Name	Null?	Type
------	-------	------

```

-----
PLANID                                NUMBER
TRIPID                               NUMBER

```

Complete tables:-

select * from client;

```

USERID NAME    DOB      ADDRESS    PHONENO
-----
1 Aryan   10-OCT-90   Bhopal     9876543210
2 Bob     10-DEC-02   Akola      1231231230
3 Cynthia 06-JUN-06   Dinhata    7897897890
4 Drake   08-JUL-00   Kochi      4564564560
5 Emma    12-DEC-99   Kashmir    1234567890
6 Farukh  07-JUL-97   Jaipur     2345678910
7 George  08-AUG-98   Bhopal     3456789120
8 Hayato  09-SEP-99   Shillong   4567891230
9 Issac   10-OCT-83   Bhopal     5678912340
10 Jinam  11-NOV-90   Prayagraj  6789123450

```

select * from plan;

```

PLANID  PLANNAME    DURATION  TOTALCOST
-----
1      N-Ind_Tour    10      20000
2      S-Ind_Tour    15      40000
3      RJ_Tour       7       15000
4      Varanasi      10      25000

```

5	Goa	15	80000
6	NE_Tour	10	20000

select * from trip;

TRIPID	CITY	DURATION	TRAVEL_VIA	HOTEL	PRICE
-----	-----	-----	-----	-----	-----
1	Delhi	4	Bus	Taj	10000
2	Chandigarh	3	Train	Radi	5000
3	Jalandar	3	Flight	Rogger	5000
4	Mysuru	5	Bus	Taj	20000
5	Madhurai	5	Train	Radi	10000
6	Chennai	5	Flight	Taj	10000
7	Ajmer	4	Bus	Nas	10000
8	Jaipur	3	Train	Taj	5000
9	Lucknow	4	Bus	Taj	10000
10	Kanpur	4	Train	Wisten	10000
11	Varanasi	2	Flight	Mandarin	5000
12	Panaji	5	Flight	Taj	40000
13	Ponda	5	Flight	Roggers	20000
14	Agonda	5	Flight	Mandarin	20000
15	Imphal	4	Flight	Mandarin	10000
16	Guwahati	4	Flight	Taj	5000
17	Nagaland	2	Flight	Mandarin	5000

select * from preferences;

USERID	TRIP_DESTI	PREFERRED_DURATION	BUDGET
-----	-----	-----	-----
1	Ajmer	5	10000
2	Delhi	10	20000
3	Lucknow	5	30000
4	Varanasi	7	20000
5	Delhi	10	20000
6	Lucknow	10	40000
7	Chennai	5	50000
8	Delhi	10	30000
10	Kanpur	10	40000

select * from users_plan;

USERID	PLANID
-----	-----
1	1
2	1
3	1
1	2
4	2
5	2
1	3
6	3
7	3
9	5
10	6

PLANID	TRIPID
--------	--------

-----	-----
1	1
1	2
1	3
2	4
2	5
2	6
3	7
3	8
4	9
4	10
4	11
5	12
5	13
5	14
6	15
6	16
6	17

Queries on the created table:-

SELECT QUERIES

- 1-Write a query to count the number of users who prefer a trip of less than or equal to 5 days under a Budget of 15000.
- 2-Write a query to find the name and Address of all the users who have Planned a trip to South India.
- 3-Write to output all the Plan Names which are chosen by at least 3 users.
- 4-Write a query to output Plan_ID of plans which include trips to at least one place among Chennai and Delhi.

5-Write a query to print the total cost of all the plans of a person whose name='Bob'

1> select count(*) from preferences where preferred_duration<=5 and budget <15000;

COUNT(*)

1

2> select name,address from client natural join (select * from users_plan natural join plan where PlanName='S-Ind_Tour');

NAME ADDRESS

Aryan Bhopal

Drake Kochi

Emma Kashmir

3> select planname from(select planname from plan natural join users_plan) group by planname having count(planname)>=3;

PLANNAME

S-Ind_Tour

RJ_Tour

N-Ind_Tour

4> select planid from plan natural join (select planid from trip natural join trips_in_a_plan where city='Delhi' or city='Chennai');

PLANID

1

2

5> select sum(totalcost) from plan natural join (select * from users_plan natural join client) where name='Bob';

SUM(TOTALCOST)

20000

UPDATE QUERIES

- 1-Write an update query to change the address of all the clients whose city is Prayagraj to Allahabad.
- 2-Write a query to change the Hotel name to Radisson where the city is among Delhi, Kolkata, Varanasi, and Mumbai, and the Total cost of the trip is greater than or equal to 25000.
- 3-Write a query to change the travel mode of Varanasi from flight to train because all flights are canceled.
- 4-Update the preferred destination of Bob to Goa.
- 5-Write a query to change the mode of traveling to the Flight from Delhi if the total cost of the Trip is greater than or equal to 20,000.

1> update client set address='Allahabad' where address='Prayagraj';

1 row updated.

2> update trip set hotel='Radisson' where city in ('Delhi','Kolkata','Varanasi','Mumbai') and price>=10000;

1 row updated.

3> update trip set travel_via='Train' where city='Varanasi';

1 row updated.

4> update preferences set trip_destination='Goa' where userid=(select userid from client where name='Bob');

1 row updated.

5> update trip set travel_via='Flight' where city='Delhi' and price>=20000;

0 rows updated.

DELETE QUERIES

1-Write a query to delete user Preferences whose preferred duration is greater than 4 days and whose preferred Budget is under 10,000.

2-Write a query to delete Madhurai from South Indian Trip.

3-Write a query to cancel all plans of Jinam.

4-Write a query to delete North India Plan of Aryan.

5-Write a query to delete the client who has not opted for any plan and has no preferences.

1> delete from preferences where preferred_duration>4 and budget<10000;

0 rows deleted.

2> delete from trips_in_a_plan where planid=(select planid from plan where planname='S-Ind_Tour') and tripid=(select tripid from trip where city='Madhurai');

1 row deleted.

3> delete from users_plan where userid=(select userid from client where name='Jinam');

1 row deleted.

4> delete from users_plan where userid=(select userid from client where name='Aryan') and planid=(select planid from plan where planname='N-Ind_Tour');

1 row deleted.

5> delete from client where userid not in (select distinct userid from users_plan) and userid not in (select userid from preferences);

0 rows deleted.
