

Thapar Institute of Eng. & Technology
ECED Department

DBMS PROJECT REPORT ON
RAILWAY
RESERVATION SYSTEM

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THAPAR INSTITUTE
OF ENGINEERING & TECHNOLOGY
(Deemed to be University)

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PROBLEM STATEMENT

Developing a railway reservation system to effectively manage aspects such as:

- Records for Train schedule.
- Managing passenger records.
- Tracking routes of the trains.
- Records of platform number and station.

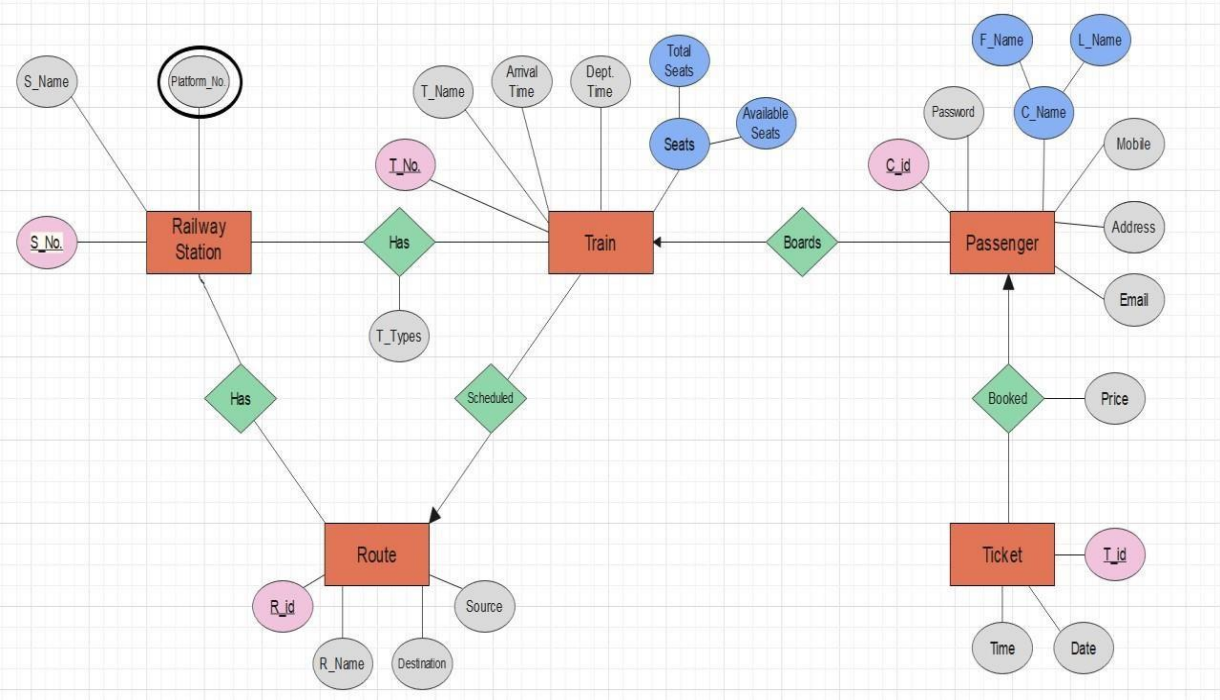
Overview

Organizations such as railways deal with a lot of passengers regularly and hence a lot of data. Hence, it is very important for railways to have a database that manages train timing, platform, station, routes etc.

Functional Requirements

- All passengers to view train timings.
- Avoid clash of route of trains.
- Ticket booked by passengers.
- If train is delayed.
- If passenger boards the train or not.
- Train is on scheduled time.
- If accommodation is present or not in a particular tra

ER DIAGRAM



ER TO TABLE

Railway Station HAS Trains

T_Types	T_No.	S_No.
---------	-------	-------

Ticket

T_id	Time	Date	Price	C_id
------	------	------	-------	------

Passenger

Email	Password	F_Name	L_Name	Mobile	Address	T_No.	C_id
-------	----------	--------	--------	--------	---------	-------	------

Train

Available Seats	T_Name	Arrival time	Dept. Time	Total Seats	R_id	T_No.
-----------------	--------	--------------	------------	-------------	------	-------

Railway Station HAS Route

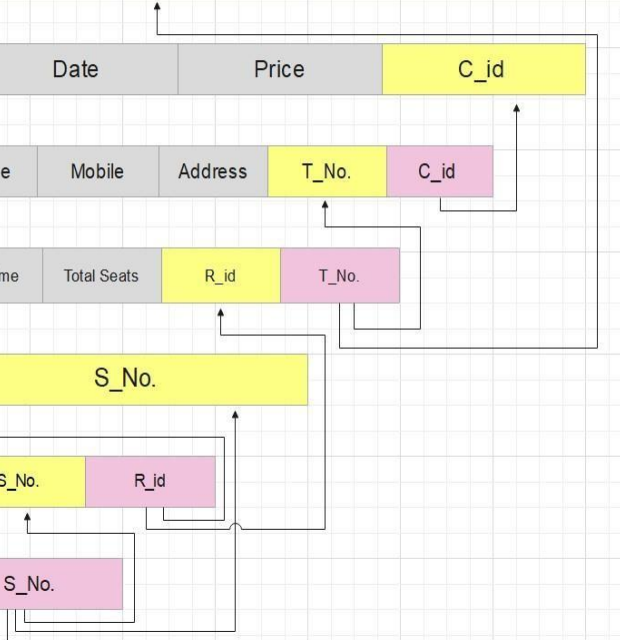
R_id	S_No.
------	-------

Route

Source	R_Name	Destination	S_No.	R_id
--------	--------	-------------	-------	------

Railway Station

Platform_No.	S_Name	S_No.
--------------	--------	-------



NORMALIZATION

1. Railway Station Has Trains: -

T_types	T_No.	S_No.
---------	-------	-------

R = (T_No., S_No., T_types)

FDs:

a) T_No., S_No. -> T_types

Table is in 1NF since all attributes are atomic.

Table is in 2NF since there is no partial dependency.

Table is in 3NF due to absence of any transitive dependency.

2. Ticket: -

T_id	Time	Date	Price	C_id
------	------	------	-------	------

R = (T_id., C_id., Time, Date, Price)

FDs:

a) T_id -> Time

b) T_id -> Date

c) T_id -> Price

Table is not in 1NF since all attributes are not atomic.

T_id	Time	Date	Price
T_id	C_id		

Now table is in 1NF.

Table is in 2NF since there is no partial dependency.

Table is in 3NF due to absence of any transitive dependency.

3. Passenger: -

Email	Password	F_Name	L_Name	Mobile	Address	T_No.	C_id
-------	----------	--------	--------	--------	---------	-------	------

R = (T_id., C_id., Time, Date, Price)

FDs:

a) C_id -> Email

b) C_id -> Password

c) C_id -> F_Name

d) C_id -> L_Name

e) C_id -> Mobile

f) C_id -> Address

Table is not in 1NF since all attributes are not atomic

C_id	T_No.
-------------	--------------

Email	Password	F_Name	L_Name	Mobile	Address	C_id
-------	----------	--------	--------	--------	---------	-------------

Now table is in 1NF.

Table is in 2NF since there is no partial dependency.

Table is in 3NF due to absence of any transitive dependency.

4. Train: -

Available Seats	T_Name	Arrival_time	Dept_time	Total Seats	R_id	T_No.
--------------------	--------	--------------	-----------	----------------	-------------	--------------

Table is in 1NF since all attributes are atomic (because it has one to one relation unlike table above).

Table is in 2NF since there is no partial dependency.

Table is in 3NF due to absence of any transitive dependency.

5. Route: -

Source	R_Name	Destination	R_id
---------------	---------------	--------------------	-------------

6. Railway Station Has Routes: -

S_No.	R_id
--------------	-------------

Table is in 1NF since all attributes are atomic (because it has one to one relation unlike table above).

Table is in 2NF since there is no partial dependency.

Table is in 3NF due to absence of any transitive dependency.

7. Railway_Station: -

Platform_No	S_No
--------------------	-------------

S_Name	S_No
---------------	-------------

SQL CODE

```
Create table Ticket(  
T_id number,  
Tim timestamp,  
Dat date,  
Price number,  
C_id number);
```

```
INSERT ALL  
INTO Ticket VALUES(2819542664,'22-Oct-2022 09:15:00','22-Oct-2022',186,11741)  
INTO Ticket VALUES(2819542612,'14-Sep-2021 10:45:00','14-Sep-2021',125, 11248)  
INTO Ticket VALUES(2819542687,'26-Apr-2021 10:10:55','26-Apr-2021', 550, 11875)  
INTO Ticket VALUES(2819542655,'10-Aug-2021 03:40:21','10-Aug-2021',240,11657)  
INTO Ticket VALUES(2819542694,'07-Mar-2021 01:57:43','07-Mar-2021',605,11432)  
SELECT 1 FROM DUAL;
```

```
Select * from Ticket
```

```
Create table Passenger(  
Email varchar(200),  
Pass varchar(200),  
F_Name varchar(200),  
L_Name varchar(200),  
Mobile number,  
Address varchar(200),  
T_No number,  
C_id number);
```

```
INSERT ALL  
INTO Passenger VALUES('ybansal@gmail.com', '****', 'Yash', 'Bansal', 123456789, 'Faridabad',  
12926, 11248)  
INTO Passenger VALUES('ayadav@yahoo.in', '****', 'Arvind', 'Yadav', 234567891, 'Bhatinda',  
12013, 11432)  
INTO Passenger VALUES('rsingh@gmail.com', '****',  
'Rajat', 'Singh', 345678921, 'Hyderabad', 22429, 11741)  
INTO Passenger VALUES('pchauhan@gmail.com', '****',  
'Puneet', 'Chauhan', 456789312, 'Mumbai', 12497, 11875)  
INTO Passenger VALUES('hmalhotra@gmail.com', '****',  
'Harshit', 'Malhotra', 567894231, 'Jaipur', 20807, 11657)  
SELECT 1 FROM DUAL;
```

```
Select * from Passenger
```



```
Create table Train(  
AvailableSeats number,  
T_Name varchar(200),  
ArrivalTime timestamp,  
DepartureTime timestamp,  
TotalSeats number,  
R_id number,  
T_No number);
```

```
INSERT ALL  
INTO Train VALUES(823,'ASR SHTBDI EXP','10-Jan-2021 07:20:00','10-Jan-2021  
01:30:30',1000,843,22429)  
INTO Train VALUES(060,'All ASR EXP','10-Jan-2021 8:05:05','11-Jan-2021 12:35:35',500,321,12926)  
INTO Train VALUES(005,'PASCHIM EXP','10-Jan-2021 11:30:00','10-Jan-2021 02:30:30',500,654,12497)  
INTO Train VALUES(081,'MEWAR EXP','10-Jan-2021 07:20:00','10-Jan-2021 1:30:30',250,784,20807)  
INTO Train VALUES(450,'HEMKUNT EXP','10-Jan-2021 5:20:20','10-Jan-2021 9:58:58',1000,591,12013)  
SELECT 1 FROM DUAL;
```

```
Select * from Train
```

```
Create table Route(  
Source varchar(200),  
R_Name varchar(200),  
Destination varchar(200),  
S_No number,  
R_id number);
```

```
INSERT ALL  
INTO Route VALUES('Jaipur','JPJUC','Jalandhar',31,321)  
INTO Route VALUES('Kota','KOTAUDZ','Udaipur',43,784)  
INTO Route VALUES('Rishikesh','RKSHCDG','Chandigarh',54,591)  
INTO Route VALUES('Amritsar','ASRNDLS','New Delhi',28,843)  
INTO Route VALUES('Mumbai','MMCT','Ambala',62,654)  
SELECT 1 FROM DUAL;
```

```
Select * from Route
```

```
Create table RailwayStation(  
Platform_No number,  
S_Name varchar(200),  
S_No number);
```

```
INSERT ALL
INTO RailwayStation VALUES(3,'Rishikesh',54)
INTO RailwayStation VALUES(6,'Amritsar',28)
INTO RailwayStation VALUES(2,'Mumbai',62)
INTO RailwayStation VALUES(5,'Kota',43)
INTO RailwayStation VALUES(1,'Jaipur',31)
SELECT 1 FROM DUAL
```

Select * from RailwayStation

```
Create table HasRoute(
R_id number,
S_No number);
```

```
INSERT ALL
INTO HasRoute VALUES(654,62)
INTO HasRoute VALUES(591,54)
INTO HasRoute VALUES(321,31)
INTO HasRoute VALUES(843,28)
INTO HasRoute VALUES(784,43)
SELECT 1 FROM DUAL;
```

Select * from HasRoute

```
Create table HasTrain(
T_Types varchar(200),
T_No number,
S_No number);
```

```
INSERT ALL
INTO HasTrain VALUES('Express',22429,28)
INTO HasTrain VALUES('Express',20807,43)
INTO HasTrain VALUES('Express',12926,31)
INTO HasTrain VALUES('Express',12497,62)
INTO HasTrain VALUES('Express',12013,54)
SELECT 1 FROM DUAL;
```

Select * from HasTrain

--Query to display details of train which arrive in evening at the station

Select * from train where to_char(ArrivalTime,'pm')='pm'

--Query to display details of passenger who has taken highest Fair Ticket

select p.F_Name , p.L_Name, T.T_id,T.Price from Passenger p,Ticket T
where p.C_Id=T.C_Id and price =(select max(price) from Ticket)

--Query to display train no whose station is Jaipur

select t.T_No,t.S_No,R.S_Name from HasTrain t,RailwayStation R where
R.S_Name='Jaipur' and R.S_No=t.S_No

OUTPUT SCREENSHOTS OF SQL CODE

The image displays two screenshots of the Oracle Live SQL interface, showing the execution of SQL code and the resulting output.

Top Screenshot:

- SQL Worksheet:** The code defines a cursor to select passenger details and a table to store the results. The table has columns: F_NAME, L_NAME, T_ID, PRICE.
- Output:** A table with 2 rows selected, showing the results of the query.

F_NAME	L_NAME	T_ID	PRICE
Arvind	Yadav	2819542694	685

Bottom Screenshot:

- SQL Worksheet:** The code defines a cursor to select train details and a table to store the results. The table has columns: T_NO, S_NO, S_NAME.
- Output:** A table with 2 rows selected, showing the results of the query.

T_NO	S_NO	S_NAME
12026	31	Jaipur
12026	31	Jaipur

Live SQL

SQL Worksheet

```

31 Select * from RailwayStation
32
33 declare
34 P_FName Passenger.F_Name%type;
35 P_SName Passenger.L_Name%type;
36 Mob Passenger.Mobile%type;
37 Address Passenger.Address%type;
38 CustomerId Passenger.C_Id%type;
39 Cursor c IS select P.F_Name,P.L_Name,P.Mobile,P.Address,T.T_No from Passenger P,Ticket T where T.Price=max(T.Price) and T.C_Id=P.C_Id;
40 begin
41 open c;
42 loop
43 fetch c into P_FName,P_SName,Mob,Address,CustomerId;
44 exit when c%NOTFOUND;
45 dbms_output.put_line(P_FName||' '||P_SName||' '||Mob||' '||Address||' '||CustomerId||' ');
46 end loop;
47 close c;
48 end;
49
50 Select * from train where to_char(ArrivalTime,'pm')='pm'
51

```

AVAILABLESEATS	T_NAME	ARRIVALTIME	DEPARTURETIME	TOTALSEATS	R_ID	T_NO
50	AII ASR EXP	10-JAN-21 08:05:00.000000 PM	11-JAN-21 12:35:35.000000 PM	500	321	12926
450	HEMUNT EXP	10-JAN-21 05:20:20.000000 PM	10-JAN-21 09:58:58.000000 PM	1000	591	12013

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2 rows selected.

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Live SQL

SQL Worksheet

```

16 INSERT INTO RailwayStation VALUES(1,'Jaipur',31);
17 Select * from RailwayStation
18
19 Create table HasRoute(R_id number,S_no number);
20
21 INSERT INTO HasRoute VALUES(554,62);
22 INSERT INTO HasRoute VALUES(591,54);
23 INSERT INTO HasRoute VALUES(321,31);
24 INSERT INTO HasRoute VALUES(843,28);
25 INSERT INTO HasRoute VALUES(785,43);
26 Select * from HasRoute
27
28 Create table HasTrain(T_Type varchar(200),T_No number,S_No number);
29
30 INSERT INTO HasTrain VALUES('Express',22429,28);
31 INSERT INTO HasTrain VALUES('Express',20807,43);
32 INSERT INTO HasTrain VALUES('Express',12926,31);
33 INSERT INTO HasTrain VALUES('Express',12497,62);
34 INSERT INTO HasTrain VALUES('Express',12013,54);
35 Select * from HasTrain
36

```

T_TYPES	T_NO	S_NO
Express	22429	28
Express	20807	43
Express	12926	31
Express	12497	62
Express	12013	54

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Oracle Live SQL - SQL Worksheet

```
1 Create table Route(Source varchar(200),R_Name varchar(200),Destination varchar(200), S_No number,R_id number);
2
3 INSERT INTO Route VALUES('Jaipur','JPJUC','Jalandhar',31,321);
4 INSERT INTO Route VALUES('Kota','KOTAUDZ','Udaipur',43,784);
5 INSERT INTO Route VALUES('Rishikesh','RKSHCDG','Chandigarh',54,591);
6 INSERT INTO Route VALUES('Amritsar','ASRIOLS','New Delhi',28,843);
7 INSERT INTO Route VALUES('Mumbai','MUCT','Ambala',62,654);
8 Select * from Route
```

SOURCE	R_NAME	DESTINATION	S_NO	R_ID
Jaipur	JPJUC	Jalandhar	31	321
Kota	KOTAUDZ	Udaipur	43	784
Rishikesh	RKSHCDG	Chandigarh	54	591
Amritsar	ASRIOLS	New Delhi	28	843
Mumbai	MUCT	Ambala	62	654

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Oracle Live SQL - SQL Worksheet

```
1 Create table Route(Source varchar(200),R_Name varchar(200),Destination varchar(200), S_No number,R_id number);
2
3 INSERT INTO Route VALUES('Jaipur','JPJUC','Jalandhar',31,321);
4 INSERT INTO Route VALUES('Kota','KOTAUDZ','Udaipur',43,784);
5 INSERT INTO Route VALUES('Rishikesh','RKSHCDG','Chandigarh',54,591);
6 INSERT INTO Route VALUES('Amritsar','ASRIOLS','New Delhi',28,843);
7 INSERT INTO Route VALUES('Mumbai','MUCT','Ambala',62,654);
8 Select * from Route
9
10 Create table RailwayStation(Platform_No number,S_Name varchar(200), S_No number);
11
12 INSERT INTO RailwayStation VALUES(3,'Rishikesh',54);
13 INSERT INTO RailwayStation VALUES(5,'Amritsar',28);
14 INSERT INTO RailwayStation VALUES(2,'Mumbai',62);
15 INSERT INTO RailwayStation VALUES(5,'Kota',43);
16 INSERT INTO RailwayStation VALUES(1,'Jaipur',31);
17 Select * from RailwayStation
```

PLATFORM_NO	S_NAME	S_NO
3	Rishikesh	54
6	Amritsar	28
2	Mumbai	62
5	Kota	43
1	Jaipur	31

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Oracle Live SQL - SQL Worksheet

```
4 INSERT INTO Ticket VALUES(2819542694,'07-Mar-2021 01:57:43pm','07-Mar-2021',605,11452);
5 INSERT INTO Ticket VALUES(2819542612,'14-Sep-2021 10:45','14-Sep-2021',125,11248);
6 INSERT INTO Ticket VALUES(2819542687,'26-Apr-2021 10:10:55pm','26-Apr-2021',550,11875);
7 Select * from Ticket
8
9 Create table Passenger(email varchar(200),Pass varchar(200),F_Name varchar(200),L_Name varchar(200),Mobile number,Address varchar(200),T_No number,C_id number);
10 INSERT INTO Passenger VALUES('yansal@gmail.com','*****','Yash','Bansal',123456789,'Faridabad',12926,11248);
11 INSERT INTO Passenger VALUES('ayadav@yahoo.in','*****','Arvind','Yadav',234567891,'Bhatinda',12013,11432);
12 INSERT INTO Passenger VALUES('rsingh@gmail.com','*****','Rajat','Singh',345678921,'Hyderabad',22429,11741);
13 INSERT INTO Passenger VALUES('pchauhan@gmail.com','*****','Puneet','Chauhan',456789312,'Mumbai',12497,11875);
14 INSERT INTO Passenger VALUES('hmalhotra@gmail.com','*****','Harshit','Malhotra',567894231,'Jaipur',20807,11657);
15 Select * from Passenger
16
17 Create table Train(AvailableSeats number,T_Name varchar(200),ArrivalTime timestamp,DepartureTime timestamp,TotalSeats number,R_id number,T_No number);
18 INSERT INTO Train VALUES(823,'ASR SHTBDI EXP','10-Jan-2021 07:20','10-Jan-2021 01:30:30pm',1000,843,22429);
19 INSERT INTO Train VALUES(60,'ATI ASR EXP','10-Jan-2021 08:05:05pm','11-Jan-2021 12:35:35pm',500,321,12926);
20 INSERT INTO Train VALUES(60,'PASCHDI EXP','10-Jan-2021 11:30','10-Jan-2021 02:30:30pm',500,654,12497);
21 INSERT INTO Train VALUES(60,'HEMAR EXP','10-Jan-2021 07:20','10-Jan-2021 1:30:30pm',250,784,20807);
22 INSERT INTO Train VALUES(450,'HEMKUNT EXP','10-Jan-2021 5:20:20pm','10-Jan-2021 9:58:58pm',1000,591,12013);
23 Select * from Train
24
```

AVAILABLESEATS	T_NAME	ARRIVALTIME	DEPARTURETIME	TOTALSEATS	R_ID	T_NO
823	ASR SHTBDI EXP	10-JAN-21 07:20:00.000000 AM	10-JAN-21 01:30:30.000000 PM	1000	843	22429
60	ATI ASR EXP	10-JAN-21 08:05:05.000000 PM	11-JAN-21 12:35:35.000000 PM	500	321	12926
60	ATI ASR EXP	10-JAN-21 08:05:05.000000 PM	11-JAN-21 12:35:35.000000 PM	500	321	12926
5	PASCHDI EXP	10-JAN-21 11:30:00.000000 AM	10-JAN-21 02:30:30.000000 PM	500	654	12497
60	HEMAR EXP	10-JAN-21 07:20:00.000000 AM	10-JAN-21 01:30:30.000000 PM	250	784	20807
450	HEMKUNT EXP	10-JAN-21 05:20:20.000000 PM	10-JAN-21 09:58:58.000000 PM	1000	591	12013

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Oracle Live SQL - SQL Worksheet

```
1 Create table Ticket(T_id number,Tim timestamp,Dat date,Price number,C_id number);
2 INSERT INTO Ticket VALUES(2819542654,'22-Oct-2022 09:15','22-Oct-2022',186,11741);
3 INSERT INTO Ticket VALUES(2819542655,'10-Aug-2021 03:40:21pm','10-Aug-2021',240,11657);
4 INSERT INTO Ticket VALUES(2819542694,'07-Mar-2021 01:57:43pm','07-Mar-2021',605,11432);
5 INSERT INTO Ticket VALUES(2819542612,'14-Sep-2021 10:45','14-Sep-2021',125,11248);
6 INSERT INTO Ticket VALUES(2819542687,'26-Apr-2021 10:10:55pm','26-Apr-2021',550,11875);
7 Select * from Ticket
8
9 Create table Passenger(email varchar(200),Pass varchar(200),F_Name varchar(200),L_Name varchar(200),Mobile number,Address varchar(200),T_No number,C_id number);
10 INSERT INTO Passenger VALUES('yansal@gmail.com','*****','Yash','Bansal',123456789,'Faridabad',12926,11248);
11 INSERT INTO Passenger VALUES('ayadav@yahoo.in','*****','Arvind','Yadav',234567891,'Bhatinda',12013,11432);
12 INSERT INTO Passenger VALUES('rsingh@gmail.com','*****','Rajat','Singh',345678921,'Hyderabad',22429,11741);
13 INSERT INTO Passenger VALUES('pchauhan@gmail.com','*****','Puneet','Chauhan',456789312,'Mumbai',12497,11875);
14 INSERT INTO Passenger VALUES('hmalhotra@gmail.com','*****','Harshit','Malhotra',567894231,'Jaipur',20807,11657);
15 Select * from Passenger

```

EMAIL	PASS	F_NAME	L_NAME	MOBILE	ADDRESS	T_NO	C_ID
yansal@gmail.com	*****	Yash	Bansal	123456789	Faridabad	12926	11248
ayadav@yahoo.in	*****	Arvind	Yadav	234567891	Bhatinda	12013	11432
rsingh@gmail.com	*****	Rajat	Singh	345678921	Hyderabad	22429	11741
pchauhan@gmail.com	*****	Puneet	Chauhan	456789312	Mumbai	12497	11875
hmalhotra@gmail.com	*****	Harshit	Malhotra	567894231	Jaipur	20807	11657

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Live SQL

Feedback Help rarora_ba20@thapar.edu

SQL Worksheet

Clear Find Actions Save Run

```
1 Create table Ticket(T_id number,Tim timestamp,Dat date,Price number,C_id number);
2 INSERT INTO Ticket VALUES(2819542664,'22-Oct-2022 09:15','22-Oct-2022',186,11741);
3 INSERT INTO Ticket VALUES(2819542655,'10-Aug-2021 03:40:21pm','10-Aug-2021',240,11657);
4 INSERT INTO Ticket VALUES(2819542694,'07-Mar-2021 01:57:43pm','07-Mar-2021',605,11432);
5 INSERT INTO Ticket VALUES(2819542612,'14-Sep-2021 10:45','14-Sep-2021',125,11248);
6 INSERT INTO Ticket VALUES(2819542687,'26-Apr-2021 10:10:55pm','26-Apr-2021',550,11875);
7 Select * from Ticket
8
9
```

T_ID	TIM	DAT	PRICE	C_ID
2819542612	14-SEP-21 10:45:00.000000 AM	14-SEP-21	125	11248
2819542687	26-APR-21 10:10:55.000000 PM	26-APR-21	550	11875
2819542694	07-MAR-21 01:57:43.000000 PM	07-MAR-21	605	11432
2819542655	10-AUG-21 03:40:21.000000 PM	10-AUG-21	240	11657
2819542664	22-OCT-22 09:15:00.000000 AM	22-OCT-22	186	11741

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Sql LA 3 and 4.pdf plsql LA2.pdf PLSQL LA1.pdf

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Type here to search

AQI 261 ENG 16:32 15-09-2022

PL/SQL CODE

--To display details of passenger

```
declare
P_FName Passenger.F_Name%type;
P_SName Passenger.L_Name%type;
Mob Passenger.Mobile%type;
Address Passenger.Address%type;
Cursor c IS select F_Name,L_Name,Mob,Address from Passenger;
begin
open c;
loop fetch c into P_FName,P_SName,Mob,Address;
exit when c%NOTFOUND; dbms_output.put_line(P_FName||' '||P_SName||' '||Mob||' '||Address);
end loop;
close c;
end;
```

--To display the details of passenger whose train is in evening

```
declare
P_FName Passenger.F_Name%type;
P_SName Passenger.L_Name%type;
Mob Passenger.Mobile%type;
Address Passenger.Address%type;
TrainNo Passenger.T_No%type;
Cursor c IS select P.F_Name,P.L_Name,P.Mobile,P.Address,T.T_No from Passenger P,Train T where
to_char(T.ArrivalTime,'pm')='pm' and T.T_No=P.T_No;
begin open c;
loop fetch c into P_FName,P_SName,Mob,Address,TrainNo; exit when c%NOTFOUND;
dbms_output.put_line(P_FName||' '||P_SName||' '||Mob||' '||Address||' '||TrainNo||' ');
end loop;
close c;
end;
```

-- To display the details of passenger whose has taken highest fair ticket

```
declare
P_FName Passenger.F_Name%type;
P_SName Passenger.L_Name%type;
Mob Passenger.Mobile%type;
Address Passenger.Address%type;
CustomerId Passenger.C_Id%type;
Cursor c IS select P.F_Name,P.L_Name,P.Mobile,P.Address,T.C_Id from Passenger P,Ticket T where
Price=(select max(Price) from Ticket) and T.C_Id=P.C_Id;
begin open c;
loop fetch c into P_FName,P_SName,Mob,Address,CustomerId; exit when c%NOTFOUND;
dbms_output.put_line(P_FName||' '||P_SName||' '||Mob||' '||Address||' '||CustomerId||' ');
end loop;
close c;
end;
```

OUTPUT SCREENSHOTS OF PLSQL CODE

The first screenshot shows the Oracle Live SQL interface with the following PL/SQL code:

```
39 INSERT INTO HasTrain VALUES('Express',12013,54);
40
41 declare
42 P_FName Passenger.F_Name%type;
43 P_SName Passenger.L_Name%type;
44 Mob Passenger.Mobile%type;
45 Address Passenger.Address%type;
46 CustomerId Passenger.C_Id%type;
47 Cursor c is select P.F_Name,P.L_Name,P.Mobile,P.Address,T.C_Id from Passenger P,Ticket T where Price=(select max(Price) from Ticket) and T.C_Id=P.C_Id;
48 begin
49 open c;
50 loop
51 fetch c into P_FName,P_SName,Mob,Address,CustomerId;
52 exit when c%NOTFOUND;
53 dbms_output.put_line(P_FName||' '||P_SName||' '||Mob||' '||Address||' '||CustomerId||' ');
54 end loop;
55 close c;
56 end;
57
58 Select * from train where to_char(ArrivalTime,'pm')='pm'
59 select n.F_Name,n.L_Name,T.T_Id,T.Price from Passenger
```

The output shows the statement processed successfully, returning the record: Arvind Yadav 234567891 Bhatinda 11432.

The second screenshot shows the Oracle Live SQL interface with the following PL/SQL code:

```
12 INSERT INTO Passenger VALUES('pchaushang@gmail.com','*****','Puneet','Chauhan',456789312,'Mumbai',12497,11875)
13 INSERT INTO Passenger VALUES('hmalhotra@gmail.com','*****','Harshit','Malhotra',567894231,'Jaipur',20807,11657)
14
15 declare
16 P_FName Passenger.F_Name%type;
17 P_SName Passenger.L_Name%type;
18 Mob Passenger.Mobile%type;
19 Address Passenger.Address%type;
20 TrainNo Passenger.T_No%type;
21 Cursor c is select P.F_Name,P.L_Name,P.Mobile,P.Address,T.T_No from Passenger P,Train T where to_char(T.ArrivalTime,'pm')='pm' and T.T_No=P.T_No;
22 begin
23 open c;
24 loop
25 fetch c into P_FName,P_SName,Mob,Address,TrainNo;
26 exit when c%NOTFOUND;
27 dbms_output.put_line(P_FName||' '||P_SName||' '||Mob||' '||Address||' '||TrainNo||' ');
28 end loop;
29 close c;
30 end;
31
32
```

The output shows the statement processed successfully, returning the records: Yash Bansal 123456789 Faridabad 12026 and Arvind Yadav 234567891 Bhatinda 12013.

Oracle Live SQL - SQL Worksheet

```
3 INSERT INTO Passenger VALUES('ayadav@yahoo.in', 'Arvind', 'Yadav', 234567891, 'Bhatinda', 12013, 11432)
4 INSERT INTO Passenger VALUES('rsingh@gmail.com', 'Rajat', 'Singh', 345678921, 'Hyderabad', 22429, 11741)
5 INSERT INTO Passenger VALUES('pchaudh@gmail.com', 'Puneet', 'Chauhan', 456789312, 'Mumbai', 12497, 11875)
6 INSERT INTO Passenger VALUES('mahotra@gmail.com', 'Harshit', 'Mahotra', 567894123, 'Jaipur', 9897, 11657)
7
8 Select * from Passenger
9
10 declare
11 P_FName Passenger.F_Name%type;
12 P_SName Passenger.L_Name%type;
13 Mob Passenger.Mobile%type;
14 Address Passenger.Address%type;
15 Cursor c IS select F_Name, L_Name, Mobile, Address from Passenger;
16 begin
17 open c;
18 loop
19 fetch c into P_FName, P_SName, Mob, Address;
20 exit when c%NOTFOUND;
21 dbms_output.put_line(P_FName || ' || P_SName || ' || Mob || ' || Address);
22 end loop;
23 close c;
24 end;
```

Statement processed:
Puneet Chauhan 456789312 Mumbai
Harshit Mahotra 567894123 Jaipur
Yash Bansal 323456789 Faridabad
Arvind Yadav 234567891 Bhatinda
Rajat Singh 345678921 Hyderabad

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