



TRAIN STATION

DATABASE

Doctor Mashael M. Khayyat

FARAH ALHARBI 2211245

FARAH MUZAFFER 2210488

HAMES ALSHEIKH 2211184

REEMA ALSALAMAH 2116406

SECTION: CO

TABLE OF CONTENTS:

TABLE OF CONTENTS.....	2
PROJECT SCHEDULE.....	3
1.INTRODUCTION.....	4
2.PHASE1.....	5
2.1PROBLEM DEFINITION.....	5
2.2CURRENT SITUATION.....	5
2.3SOLUTION.....	5
2.4LIST OF ENTITIES.....	6
2.5THE RELATIONSHIPS.....	6
2.6ER MODEL DIAGRAM.....	8
3.PHASE2.....	9
3.1RELATIONAL BEFORE.....	9
3.2FUNCTIONAL DEPENDENCIES.....	10
3.3 NORMALIZATION.....	10
3.4RELATIONAL AFTER.....	11
3.5LOGICAL MODELLING.....	12
4.PHASE3.....	13
4.1TABLES.....	14 -20
4.2DESIGN QUERIES.....	21 -27
4.3STORED PROCEDURE.....	28 -29

PROJECT SCHEDULE

Task	Due Date	Responsible member
Project Proposal	Feb 10	All members
DB Design ER model	Mar 25	All members
DB Design Normalization and mapping	Mar 25	All members
DB implementation and testing	May 8	All members

1. INTRODUCTION

The creation of a strong train station database system is required by the contemporary need for effective, error-free, and customer-focused train station administration. Centralizing important entities like trains, stations, passengers, and staff would help expedite operations, reduce mistakes, and offer instant access to vital information. Passengers may readily obtain train-related information online via web-enabled services, which improves their entire travel experience. The project tackles issues with data management in contemporary train systems, such as processing massive amounts of data, protecting data, and promoting in-the-moment decision-making. This solution raises the bar for train station operations by utilizing best practices and cutting-edge technologies, which boosts productivity, dependability, and customer happiness.

PHASE 1

2.1 PROBLEM DEFINITION

The primary goal of our train station database is to decrease human mistakes associated with ticket buying and cancellations, as well as to make it easier for consumers and providers to maintain the data about their customers. The data will be obtained and processed quickly. The suggested system can be web-enabled for future extension, allowing customers to inquire about trains between stations. As a result, several customer problems arise from time to time. In this project, we will show how to handle and tackle the complexities of managing data within modern train systems. Also, we will address the challenges faced by train networks, such as handling massive data volumes, real-time decision-making, legacy system integration, and data security.

2.2 THE CURRENT SITUATION INVOLVES:

1. High occurrence of human errors in ticketing and cancellations.
2. Complex and error-prone manual data management.
3. Slow data processing and limited customer interaction.
4. Difficulty in handling massive data volumes efficiently.
5. Lack of real-time decision-making capabilities.
6. Challenges in integrating new systems with existing legacy infrastructure.

2.3 THE SOLUTION

To tackle the issue mentioned above, we create a database that consists of these entities:

- 1 - Trains.
- 2 - Stations.
- 3 - Passenger.
- 4 - Employees.
- 5 - Supplier.
- 6 - Reservation.

2.4 LIST OF ENTITIES:

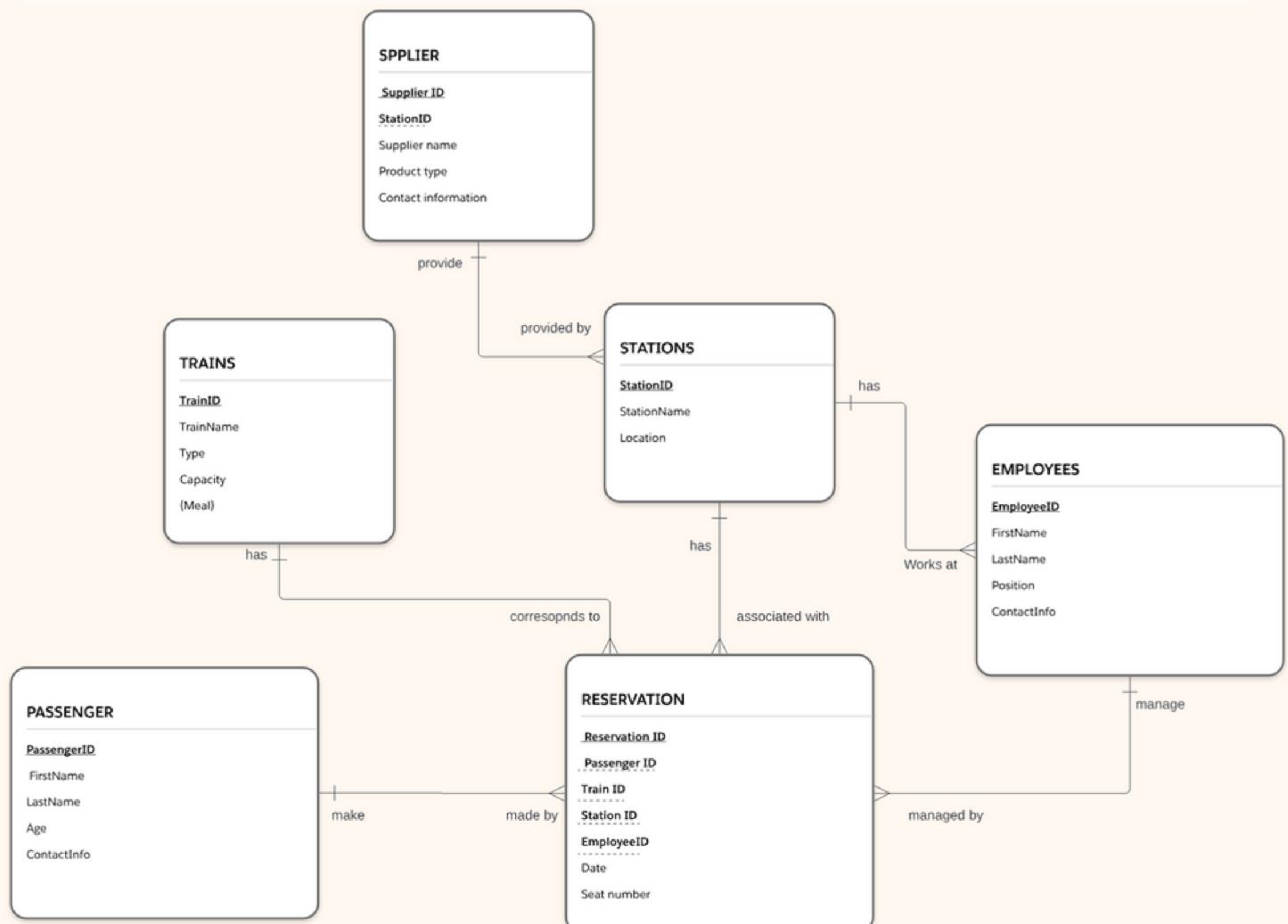
Entities	Attributes
SPPLIER	Supplier ID StationID Supplier name Product type Contact information
TRAINS	TrainID TrainName Type Capacity Meal
STATIONS	StationID StationName Location
EMPLOYEEAS	EmployeeID FirstName LastName Position ContactInfo
PASSENGER	PassengerID FirstName LastName Age ContactInfo
RESERVATION	Reservation ID Passenger ID Train ID Station ID EmployeeID Date Seat number managed by

2.5 THE RELATIONSHIPS

- 1** - one Supplier provides many stations, or many stations provided by one supplier where suppliers provide the station with proper equipment and services such as (food, cleaning, etc...)
- 2** - One Passenger makes many reservations, or many reservations made by one passenger where each passenger can buy one or more tickets that have passenger information .
- 3** -One station has many employees, or many employees work at one station.
- 4** -One employee manages many reservations, or many reservations managed by one employee where employees can change the reservation time and train.
- 5** -one train has many reservations, or many reservations correspond to one train where each reservation has a specific train.
- 6** -one station has many reservations, or many reservations associated with one station where each reservation has a specific station.

Table name	Attribute	Date type	Data Description
SPPLIER	SupplierID StationID SupplierName ProductType ContactInformation	Single & Simple PK Single & Simple FK Simple Simple Simple	-The supplier ID -The station ID -The supplier name -The type of product -Contact information
TRAINES	TrainID TrainName Type Capacity Meal	Single & Simple PK Simple Simple Simple Multi-valued	-The train ID -The train name -The type of the train -The train capacity -Meals on the train
STATIONS	StationID StationName Location StationID	Single & Simple PK Simple Simple	-The station ID -The station name -The station location
EMPLOYEEAS	EmployeeID FirstName LastName Position ContactInfo	Single & Simple PK Simple Simple Simple Simple	-The employee ID -Employee first name -Employee last name -Employee position -Contact information
PASSENGER	PassengerID FirstName LastName Age ContactInfo	Single & Simple PK Simple Simple Simple Simple	-The passenger ID -Passenger first name -Passenger last name -Passenger age -Contact information
RESERVATION	ReservationID PassengerID TrainID StationID EmployeeID Date SeatNumber	Single & Simple PK Single & Simple FK Single & Simple FK Single & Simple FK Single & Simple FK Simple Simple	-The reservation ID -The passenger ID -The train ID -The station ID -The employee ID -Reservation date -The seat number

2.6ER MODEL DIAGRAM:



PHASE 2

3.1 RELATIONAL BEFORE

PASSENGER

<u>PasengerID</u>	FirstName	LastName	Age	ContactInfo
-------------------	-----------	----------	-----	-------------

RESERVATION

<u>ReservationID</u>	<u>PasengerID</u>	TrainID	StationID	<u>EmployeeID</u>	Date	SeatNumber
----------------------	-------------------	---------	-----------	-------------------	------	------------

TRAIN

<u>TrainID</u>	TrainName	Type	Capacity	Meal
----------------	-----------	------	----------	------

A

STATION

<u>StationID</u>	StationName	Location
------------------	-------------	----------

SUPPLIER

<u>SupplierID</u>	<u>StationID</u>	SupplierName	ProductType	Contact Information
-------------------	------------------	--------------	-------------	---------------------

EMPLOYEE

<u>EmployeeID</u>	FirstName	LastName	Position	ContactInfo
-------------------	-----------	----------	----------	-------------

3.2 Functional dependencies

- PassengerID --> FirstName, LastName, Age, ContactInfo
 - TrainID --> TrainName, Type, Capacity
 - SupplierID --> SupplierName ,ProductType, ContactInformation, StationID
 - StationID --> StationName, Location
-
- EmployeeID --> FirstName, LastName, Position, ContactInfo
 - ReservationID --> PassengerID, TrainID, StationID,EmployeeID, Date, SeatNumber
 - Meal --> TrainID

3.3 Normalization

1FN

In A, Meal is a multivalued attribute so in 1NF we will remove multivalued attribute and we will create separate entity for it so Meal will be primary key and TrainID will be foreign key

The amendment is shown on the page 6 at letter A

2NF

Remove all partial functional dependency

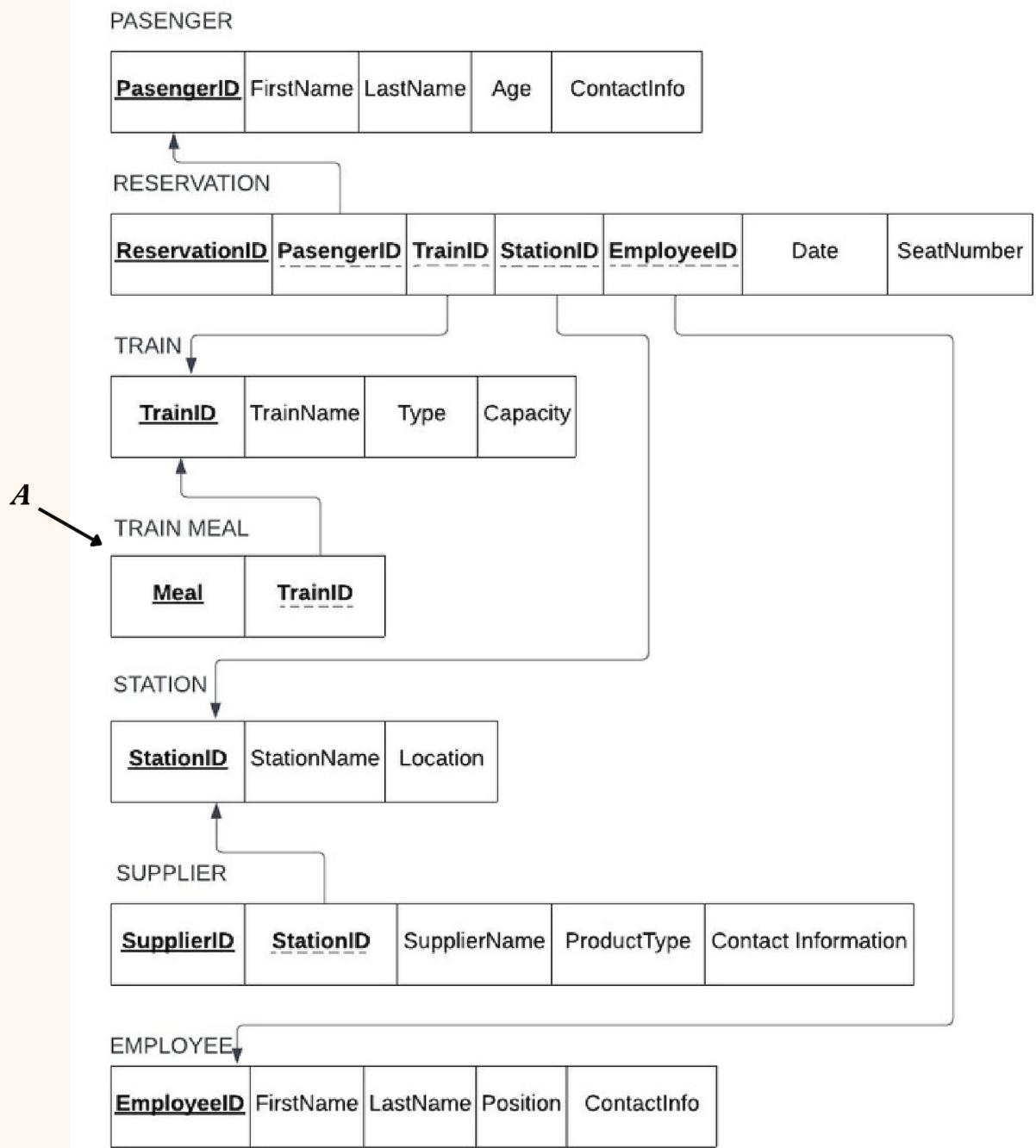
The schema is already in 2NF

3NF

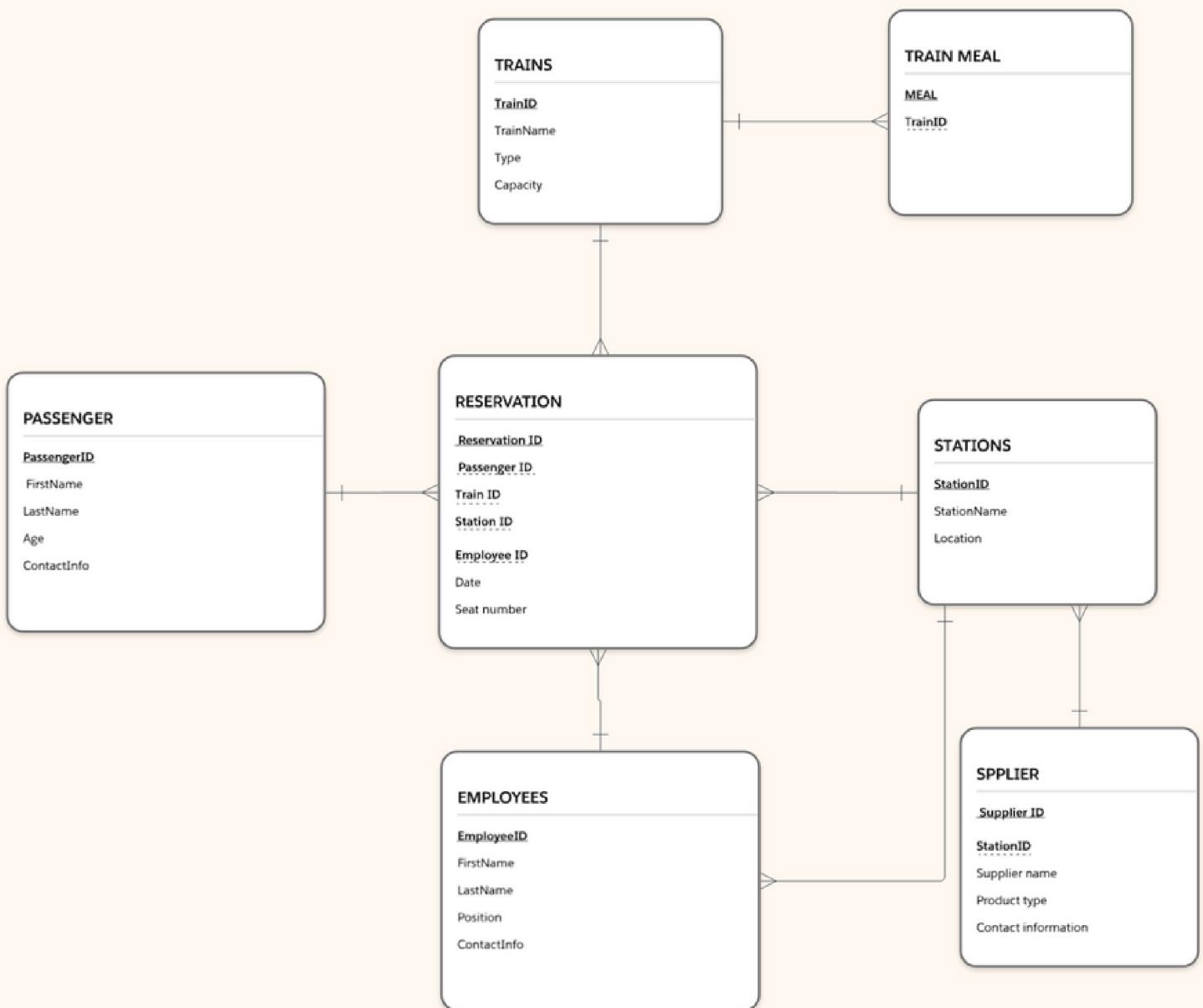
Remove all transitive dependencies

The schema is already in 3NF

3.4 RELATIONAL AFTER



3.5 LOGICAL MODELLING



PHASE 3

Table name	Attribute	Date type	Constraint
SUPPLIER	SupplierID SupplierName ProductType ContactInformation	Number Varchar Varchar Varchar	Primary key
TRAINS	TrainID TrainName Type Capacity	Number Varchar Varchar Number	Primary key
STATIONS	StationID StationName Location	Number Varchar Varchar	Primary key
EMPLOYEEAS	EmployeeID FirstName LastName Position ContactInfo	Number Varchar Varchar Varchar Varchar	Primary key
PASSENGER	PassengerID FirstName LastName Age ContactInfo	Number Varchar Varchar Number Number	Primary key
RESERVATION	ReservationID PassengerID TrainID StationID Date SeatNumber	Number Number Number Number Date Varchar	Primary key Foreign key Foreign key Foreign key
TRAIN MEAL	Meal TrainID	Varchar Number	Primary Key Foreign Key

4 - 1 Tables

Trains Table:

```
1 v CREATE TABLE Trains
2 (
3     TrainID Number(7) NOT NULL PRIMARY KEY,
4     TrainName Varchar2(6),
5     Type Varchar2(20),
6     Capacity Number(6)
7 );
8
9 v insert into Trains
10 values(
11 2211184, 'HA1100', 'High Speed', 200
12 );
13 v insert into Trains
14 values(
15 7544521, 'AA9954', 'High Speed', 250
16 );
17 v insert into Trains
18 values(
19 3456789, 'MR4793', 'Commuter ', 100
20 );
21 v insert into Trains
22 values(
23 2345679, 'LG9433', 'Light rail', 250
24 );
25 v insert into Trains
26 values(
27 9878654, 'SV5577', 'Light rail', 150
28 );
29
30 SELECT * FROM Trains|
```

TRAINID	TRAINNAME	TYPE	CAPACITY
2211184	HA1100	High Speed	200
7544521	AA9954	High Speed	250
3456789	MR4793	Commuter	100
2345679	LG9433	Light rail	250
9878654	SV5577	Light rail	150

Stations Table:

```
1 CREATE TABLE Stations
2 (
3     StationID Number(5) NOT NULL PRIMARY KEY,
4     StationName Varchar2(15),
5     Location Varchar2(20)
6 );
7
8
9 insert into Stations
10 values(10384, 'Station A', 'Jeddah');
11
12 insert into Stations
13 values(19163, 'Station B', 'Mekkah');
14
15 insert into Stations
16 values(10373, 'Station C', 'Abha');
17
18 insert into Stations
19 values(19347, 'Station D', 'Riyadh');
20
21 insert into Stations
22 values(15394, 'Station E', 'Taif');
23
24 SELECT * FROM Stations
25 |
```

STATIONID	STATIONNAME	LOCATION
10384	Station A	Jeddah
19163	Station B	Mekkah
10373	Station C	Abha
19347	Station D	Riyadh
15394	Station E	Taif

Employees Table:

```
1 CREATE TABLE Employees
2 (
3     EmployeeID Number(7) NOT NULL PRIMARY KEY,
4     FirstName Varchar2(20),
5     LastName Varchar2(20),
6     Position Varchar2(40),
7     ContactInfo Varchar2(10)
8 );
9
10
11 insert into Employees
12 values(
13 4398201, 'Hames', 'Alsheikh ', 'Performance and accident monitor', '0545460029'
14 );
15
16 insert into Employees
17 values(
18 5676893, 'Sara', 'Alqathmi', 'Ticket Seller', '0549872610'
19 );
20
21 insert into Employees
22 values(
23 4567890, 'Farah ', 'Alharbi', 'Station manager', '0596878932'
24 );
25
26 insert into Employees
27 values(
28 1234598, 'Reema', 'Alsalamah', 'Schedule reservations times', '0563787211'
29 );
30
31 insert into Employees
32 values(
33 5647389, 'Farah', 'Muzaffer', 'Train control manager', '0543524670'
34 );
35
36 SELECT * FROM Employees
```

EMPLOYEEID	FIRSTNAME	LASTNAME	POSITION	CONTACTINFO
4398201	Hames	Alsheikh	Performance and accident monitor	0545460029
5676893	Sara	Alqathmi	Ticket Seller	0549872610
4567890	Farah	Alharbi	Station manager	0596878932
1234598	Reema	Alsalamah	Schedule reservations times	0563787211
5647389	Farah	Muzaffer	Train control manager	0543524670

Passenger Table:

```
1 v CREATE TABLE PASSENGER
2 (
3     PASSENGERID Number(10) PRIMARY KEY,
4     FIRSTNAME Varchar2(10),
5     LASTNAME Varchar2(15),
6     AGE Number(3),
7     CONTACTINFO Number(10)
8 );
9
10 Insert into PASSENGER values(1593501947,'Mashael','Khayyat',23,577820129);
11 Insert into PASSENGER values(1233985176,'Farah','Muzaffer',36,543430082);
12 Insert into PASSENGER values(1223690764,'Khaled','Al-Harbi',55,554921384);
13 Insert into PASSENGER values(1559366185,'Reema','Al-Salamah',19,588234961);
14 Insert into PASSENGER values(1398740017,'Ali','Al-Ghamdi',8,538336012);
15 Insert into PASSENGER values(1450995184,'Ahmed','Al-Tamimi',100,577883452);
16
17 SELECT * FROM PASSENGER;
18
```

PASSENGERID	FIRSTNAME	LASTNAME	AGE	CONTACTINFO
1593501947	Mashael	Khayyat	23	577820129
1233985176	Farah	Muzaffer	36	543430082
1223690764	Khaled	Al-Harbi	55	554921384
1559366185	Reema	Al-Salamah	19	588234961
1398740017	Ali	Al-Ghamdi	8	538336012
1450995184	Ahmed	Al-Tamimi	100	577883452

Reservation Table:

```
1 v CREATE TABLE Reservation (
2     ReservationID Number(10) PRIMARY KEY,
3     PassengerID Number(10),
4     TrainID Number(7),
5     StationID Number(7),
6     SeatNumber Varchar2(10),
7     ReDate Date,
8     FOREIGN KEY (PassengerID) REFERENCES PASSENGER(PASSENGERID),
9     FOREIGN KEY (TrainID) REFERENCES Trains(TrainID)
10 );
11 v INSERT INTO Reservation (ReservationID, PassengerID, TrainID, StationID, SeatNumber, ReDate)
12 VALUES ('12', '1593501947', '2211184', '10384', '10', TO_DATE('2024-04-21', 'YYYY-MM-DD'));
13
14 v INSERT INTO Reservation (ReservationID, PassengerID, TrainID, StationID, SeatNumber, ReDate)
15 VALUES ('28', '1233985176', '7544521', '19163', '15', TO_DATE('2024-04-22', 'YYYY-MM-DD'));
16
17 v INSERT INTO Reservation (ReservationID, PassengerID, TrainID, StationID, SeatNumber, ReDate)
18 VALUES ('79', '1223690764', '3456789', '10373', '20', TO_DATE('2024-04-23', 'YYYY-MM-DD'));
19
20 v INSERT INTO Reservation (ReservationID, PassengerID, TrainID, StationID, SeatNumber, ReDate)
21 VALUES ('119', '1559366185', '2345679', '19347', '25', TO_DATE('2024-05-01', 'YYYY-MM-DD'));
22
23 v INSERT INTO Reservation (ReservationID, PassengerID, TrainID, StationID, SeatNumber, ReDate)
24 VALUES ('157', '1398740017', '9878654', '15394', '30', TO_DATE('2024-04-25', 'YYYY-MM-DD'));
25
26 v INSERT INTO Reservation (ReservationID, PassengerID, TrainID, StationID, SeatNumber, ReDate)
27 VALUES ('177', '1450995184', '2345679', '19347', '35', TO_DATE('2024-05-02', 'YYYY-MM-DD'));
28
29
30 SELECT * FROM Reservation;
31
```

RESERVATIONID	PASSENGERID	TRAINID	STATIONID	SEATNUMBER	REDATE
12	1593501947	2211184	10384	10	21-APR-24
28	1233985176	7544521	19163	15	22-APR-24
79	1223690764	3456789	10373	20	23-APR-24
119	1559366185	2345679	19347	25	01-MAY-24
157	1398740017	9878654	15394	30	25-APR-24
177	1450995184	2345679	19347	35	02-MAY-24

Train Meal Table:

```

1 v CREATE TABLE TRAINMEAL
2 (
3     MEAL Varchar2 (50) PRIMARY KEY,
4     TRAINID Number (7),
5     FOREIGN KEY (TRAINID ) REFERENCES Trains(TRAINID)
6 );
7
8
9 Insert into TRAINMEAL values('Meat Meal',2211184);
10 Insert into TRAINMEAL values('Chicken Meal',2211184);
11 Insert into TRAINMEAL values('Fish Meal',2211184);
12 Insert into TRAINMEAL values('Chicken Salad',2211184);
13 Insert into TRAINMEAL values('Lemon Cake',2211184);
14
15 Insert into TRAINMEAL values('Fettuccine Alfredo ',7544521);
16 Insert into TRAINMEAL values('Mansaf',7544521);
17 Insert into TRAINMEAL values('Meat Biryani',7544521);
18 Insert into TRAINMEAL values('chicken Biryani',7544521);
19 Insert into TRAINMEAL values('Fruit Salad',7544521);
20
21 Insert into TRAINMEAL values('Spinach Salad',3456789);
22 Insert into TRAINMEAL values('Spaghetti',3456789);
23 Insert into TRAINMEAL values('Omelette Toast',3456789);
24 Insert into TRAINMEAL values('Cheese Burger',3456789);
25 Insert into TRAINMEAL values('Cheese Cake',3456789);
26
27 Insert into TRAINMEAL values('Kabsa',2345679);
28 Insert into TRAINMEAL values('Pizza',2345679);
29 Insert into TRAINMEAL values('Caesar Salad',2345679);
30 Insert into TRAINMEAL values('Gigot d'Agneau',2345679);
31 Insert into TRAINMEAL values('Alba dessert',2345679);
32
33 Insert into TRAINMEAL values('Gratin Dauphinois',9878654);
34 Insert into TRAINMEAL values('Machbous',9878654);
35 Insert into TRAINMEAL values('Tuna sandwich',9878654);
36 Insert into TRAINMEAL values('Carrot Salad',9878654);
37 Insert into TRAINMEAL values('Cookies Cake',9878654);
38
--
```

MEAL	TRAINID
Meat Meal	2211184
Chicken Meal	2211184
Fish Meal	2211184
Chicken Salad	2211184
Lemon Cake	2211184
Fettuccine Alfredo	7544521
Mansaf	7544521
Meat Biryani	7544521
chicken Biryani	7544521
Fruit Salad	7544521
Spinach Salad	3456789
Spaghetti	3456789
Omelette Toast	3456789
Cheese Burger	3456789
Cheese Cake	3456789
Kabsa	2345679
Pizza	2345679
Caesar Salad	2345679
Gigot d'Agneau	2345679
Alba dessert	2345679
Gratin Dauphinois	9878654
Machbous	9878654
Tuna sandwich	9878654
Carrot Salad	9878654
Cookies Cake	9878654

Supplier Table:

```
1 v CREATE TABLE Supplier (
2     SupplierID NUMBER(12) NOT NULL PRIMARY KEY,
3     StationID NUMBER(12),
4     SupplierName VARCHAR2(20),
5     ProductType VARCHAR2(20), |
6     ContactInfo VARCHAR2(30),
7     FOREIGN KEY (StationID) REFERENCES Stations(StationID)
8 );
9
10 v INSERT INTO Supplier
11     VALUES (63291, 10384, 'Corvo Attano', 'Cleanning Product', '0512309658');
12
13 v INSERT INTO Supplier
14     VALUES (28173, 19163, 'Yennefer Vengerberg', 'Maintenance', '0561929275');
15
16 v INSERT INTO Supplier
17     VALUES (17261, 10373, 'Delilh Copperspoon', 'Meals', '0517283627');
18
19 v INSERT INTO Supplier
20     VALUES (02826, 19347, 'Ada Wong', 'Health Insurance', '0519182827');
21
22 v INSERT INTO Supplier
23     VALUES (27381, 15394, 'Johnny Silverhand', 'Safety and Security', '0512309658');
24
```

SUPPLIERID	STATIONID	SUPPLIERNNAME	PRODUCTTYPE	CONTACTINFO
63291	10384	Corvo Attano	Cleanning Product	0512309658
28173	19163	Yennefer Vengerberg	Maintenance	0561929275
17261	10373	Delilh Copperspoon	Meals	0517283627
2826	19347	Ada Wong	Health Insurance	0519182827
27381	15394	Johnny Silverhand	Safety and Security	0512309658

4 - 2 Design Queries:

Query to find out all the information about the passenger and their reservations ID. The last name of the passenger must end with 'i'. Then, the result should be arranged by the age and the passenger ID.

```
1 v select R.RESERVATIONID,P.PASSENGERID,P.FIRSTNAME,P.LASTNAME, P.AGE,P.CONACTINFO  
2      from RESERVATION R,PASSENGER P  
3      WHERE P.PASSENGERID=R.PASSENGERID AND P.LASTNAME LIKE '%i'  
4      ORDER BY AGE,PASSENGERID
```

RESERVATIONID	PASSENGERID	FIRSTNAME	LASTNAME	AGE	CONTACTINFO
157	1398740017	Ali	Al-Ghamdi	8	538336012
79	1223690764	Khaled	Al-Harbi	55	554921384
177	1450995184	Ahmed	Al-Tamimi	100	577883452

Query to find all passengers in train "HA1100" with their reservation details

```
1 v Select P. PASSENGERID, FIRSTNAME, LASTNAME, R.ReservationID, ReDate ,  
2   SeatNumber ,T. TrainID , TrainName , S.StationID, StationName , Location  
3  
4 From PASSENGER P , Reservation R , Trains T, Stations S  
5 Where P.PASSENGERID = R. PASSENGERID  
6 And T. TrainID = R. TrainID  
7 And S. StationID = R. StationID  
8 And Trainname='HA1100'  
9 Order by PASSENGERID
```

PASSENGERID	FIRSTNAME	LASTNAME	RESERVATIONID	REDATE
1593501947	Mashael	Khayyat	12	21-APR-24



SEATNUMBER	TRAINID	TRAINNAME	STATIONID	STATIONNAME	LOCATION
10	2211184	HA1100	10384	Station A	Jeddah

Query to find out which meals are available for a specific train.

```
1 v | SELECT
2      TM.MEAL,
3      T.TrainName
4  FROM
5      TRAINMEAL TM
6  JOIN
7      Trains T ON TM.TRAINID = T.TrainID
8 WHERE
9      T.TrainName = 'HA1100';
```

MEAL	TRAINNAME
Meat Meal	HA1100
Chicken Meal	HA1100
Fish Meal	HA1100
Chicken Salad	HA1100
Lemon Cake	HA1100

Query to retrieve the details of employees working in a specific position.

```
1 v SELECT
2     E.EmployeeID,
3     E.FirstName,
4     E.LastName,
5     E.Position,
6     E.ContactInfo
7 FROM
8     Employees E
9 WHERE
10    E.Position = 'Ticket Seller';
```

EMPLOYEEID	FIRSTNAME	LASTNAME	POSITION	CONTACTINFO
5676893	Sara	Alqathmi	Ticket Seller	0549872610

Query to find out the total capacity and number of reservations made for each train.

```
1 v SELECT
2     T.TrainName,
3     T.Capacity,
4     COUNT(R.ReservationID) AS NumReservations
5 FROM
6     Trains T
7 LEFT JOIN
8     Reservation R ON T.TrainID = R.TrainID
9 GROUP BY
10    T.TrainName,
11    T.Capacity;
```

TRAINNAME	CAPACITY	NUMRESERVATIONS
HA1100	200	1
LG9433	250	2
AA9954	250	1
MR4793	100	1
SV5577	150	1

This query fetches supplier details for suppliers located in stations in Jeddah, Mekkah, or Riyadh.

```
1 v SELECT SupplierID, SupplierName  
2   FROM SUPPLIER  
3 WHERE StationID IN (  
4     SELECT StationID  
5       FROM STATIONS  
6     WHERE Location IN('Jeddah','Mekkah','Riyadh')  
7 );
```

SUPPLIERID	SUPPLIERNAME
63291	Corvo Attano
28173	Yennefer Vengerberg
2826	Ada Wong

Query to find out the average age of passengers who made reservations for station D.

```
1 v SELECT
2      AVG(P.AGE) AS AverageAge
3 FROM
4      PASSENGER P
5 JOIN
6      Reservation R ON P.PASSENGERID = R.PassengerID
7 JOIN
8      Stations S ON R.StationID = S.StationID
9 WHERE
10     S.StationName = 'Station D';
```

AVERAGEAGE
59.5

4 - 3 Stored Procedure:

Create a PARAMETER based SELECT QUERY Stored Procedure.

```
1 CREATE OR REPLACE PROCEDURE GetINFO(TrainNO IN NUMBER,PASSENGERNO IN NUMBER)
2 AS
3 BEGIN
4     FOR info IN (SELECT T.TrainID, P.PASSENGERID, P.FIRSTNAME, P.LASTNAME,
5      S.StationID, S.StationName, S.Location, R.ReservationID, R.SeatNumber, R.ReDate
6          FROM TRAINS T
7          JOIN RESERVATION R ON T.TrainID = R.TrainID
8          JOIN PASSENGER P ON R.PASSENGERID = P.PASSENGERID
9          JOIN STATIONS S ON R.StationID = S.StationID
10         WHERE T.TrainID = TrainNO
11         AND P.PASSENGERID = PASSENGERNO)
12     LOOP
13         DBMS_OUTPUT.PUT_LINE('TrainID: ' || info.TrainID ||
14         ', PassengerID: ' || info.PASSENGERID ||
15         ', Passenger Name: ' || info.FIRSTNAME || ' ' || info.LASTNAME ||
16         ', StationID: ' || info.StationID ||
17         ', Station Name: ' || info.StationName ||
18         ', Location: ' || info.Location ||
19         ', ReservationID: ' || info.ReservationID ||
20         ', Seat Number: ' || info.SeatNumber ||
21         ', Reservation Date: ' || TO_CHAR(info.ReDate, 'YYYY-MM-DD HH24:MI:SS'));
22     END LOOP;
23 END GetINFO;
```

Procedure created.

1 | EXEC GetINFO (10384,63291)

Statement processed.
Station ID: 10384, Station Name: Station A, Location: Jeddah, Supplier ID: 63291, Supplier Name: Corvo Attano, Product Type: Cleaning Product, Contact Information: 512309658

UPDATE Query Based Stored Procedure.

```
1 v CREATE OR REPLACE PROCEDURE UpdatePassengerAge(
2     p_passenger_id IN NUMBER,
3     p_new_age IN NUMBER
4 )
5 IS
6 BEGIN
7     UPDATE PASSENGER
8     SET AGE = p_new_age
9     WHERE PASSENGERID = p_passenger_id;
10
11    COMMIT;
12    DBMS_OUTPUT.PUT_LINE('Passenger age updated successfully.');
13 END;
```

```
1 EXEC UpdatePassengerAge(1593501947, 25);
```

Statement processed.
Passenger age updated successfully.

```
1 SELECT* FROM PASSENGER
```

PASSENGERID	FIRSTNAME	LASTNAME	AGE	CONTACTINFO
1593501947	Mashael	Khayyat	25	577820129
1233985176	Farah	Muzaffer	36	543430082
1223690764	Khaled	Al-Harbi	55	554921384
1559366185	Reema	Al-Salamah	19	588234961
1398740017	Ali	Al-Ghamdi	8	538336012
1450995184	Ahmed	Al-Tamimi	100	577883452