



**PRINCESS NORA BINT ABDULRAHMAN UNIVERSITY**

**College of Computer and Information Sciences**

**Department of Information Systems**



**Alforjan Hajj Campaign**

**Phase # 1&2&3**

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**Group#: 2**

**Supervised By: Dr. Shahad Alshehah**

## Project Description:

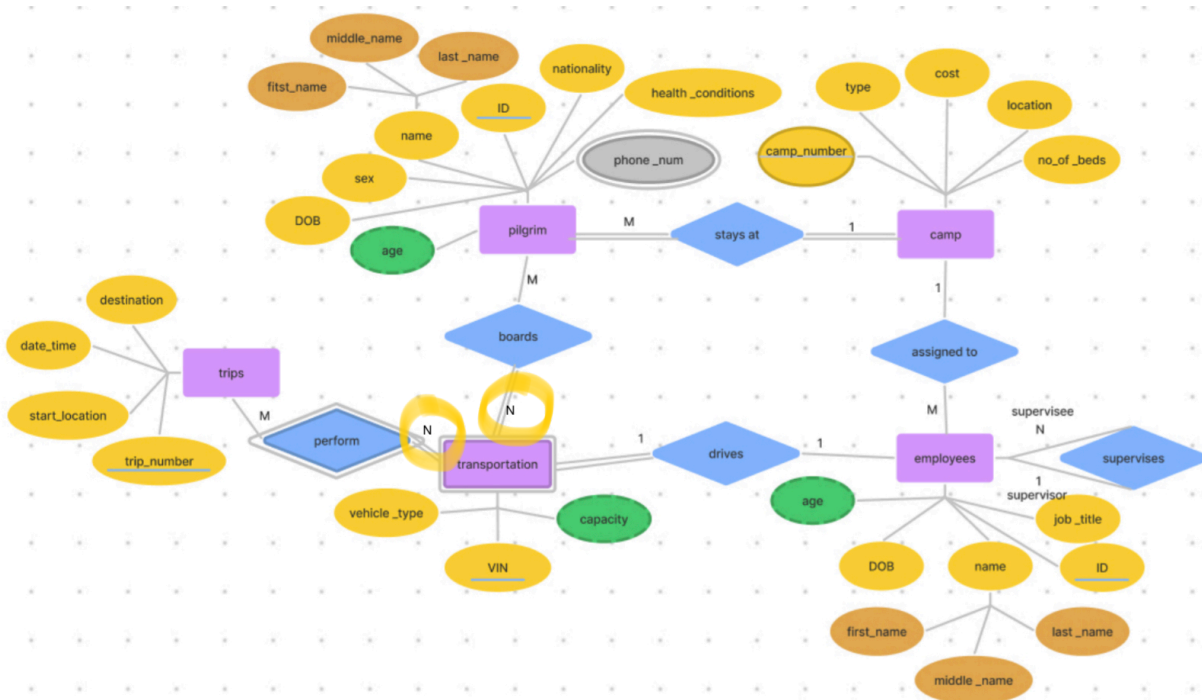
The Alforjan Hajj campaign aims to assist the many pilgrims coming to Makkah each year to have a peaceful and hassle-free Hajj. We plan to use Oracle to keep careful track of the pilgrims, employees, camps, trips, and transportation facilities alike.

Each pilgrim will supply the necessary information such as their full name, ID number (unique), nationality, sex, phone number, date of birth, and health conditions if any. They will be divided among different camps which have different types, costs, locations, number of beds, and a unique number.

To keep each employee accounted for, we will store their full name, ID number (unique), job title, and date of birth. Each employee will work in one camp at most, camps hold many of the pilgrims during their overnight stays. each employee will also have a direct supervisor.

As for the transportation facilities which will carry many of the pilgrims, we believe that the type of vehicle, VIN (unique), the driver, and its capacity are the attributes of utmost importance; and the trips that the transportation will perform will be tracked by their starting location, destination, date and time, and unique number.

## Entity Relationship Diagram (ERD):



## Hajj campaign ERD:

### Relational Schema:

Camp(camp\_num, type, cost, location, no\_of\_beds)

Pilgrim(ID, D.O.B, sex, first\_name, middle\_name, last\_name, nationality, health\_conditions, camp\_number)

FK1: camp\_number references Camp(camp\_num)

PilgrimPhone(ID, phone\_num)

FK1: ID references Pilgrim(ID)

Employees(ID, job\_title, first\_name, middle\_name, last\_name, DOB, camp\_number, supervisor\_ID)

FK1: camp\_number references Camp(camp\_number)

FK2: supervisor\_ID references Employees(ID)

Transportation(vin, vehicle\_type, driver\_ID, trip\_number)

FK1: driver\_ID references Employees(ID)

FK2: trip\_number references Trips(trip\_number)

Trips(trip\_number, destination, date\_time, start\_location)

Board(Id, vin, trip\_number)

Fk1: Id references pilgrim(id)

Fk2: vin references transportation (vin)

Fk3: trip\_number references trips(trip\_number)

DDL commands:

Creating tables :

### 1) camp

```
SQL> Create table camp (  
2  Camp_num char(5) primary key,  
3  Type char(1) check(Type in('A','B','C')),  
4  Cost number(5),  
5  Location varchar2(30),  
6  No_of_beds number(2));  
  
Table created.
```

### 2) employees

```
SQL> Create table employees (  
2  ID char(10) primary key,  
3  Job_title varchar2(30),  
4  First_name varchar2(15),  
5  Middle_name varchar2(15),  
6  Last_name varchar2(15),  
7  DOB date,  
8  Camp_num char(5),  
9  Supervisor_ID char(10),  
10 Foreign key (Camp_num) references camp(Camp_num),  
11 Foreign key (Supervisor_ID) references employees (ID));  
  
Table created.
```

### 3) Trips

```
SQL> Create table trips (  
2  Trip_number number(4) primary key,  
3  destination varchar2(20),  
4  date_time date,  
5  start_location varchar2(20));  
  
Table created.
```

### 4) Transportation

```
SQL> Create table transportation (  
2  Vin varchar2(15) ,  
3  Vehicle_type varchar(15),  
4  Driver_ID char(10),  
5  Trip_number number(4),  
6  PRIMARY KEY(VIN,TRIP_NUMBER),  
7  Foreign key (Driver_ID) references employees (ID),  
8  foreign key (Trip_number) references trips(Trip_number));  
  
Table created.
```

### 5) Pilgrim

```
SQL> Create table Pilgrim (  
2  ID char(10) primary key,  
3  D_O_B date,  
4  Sex char(1) ,  
5  first_name varchar2(15),  
6  Middle_name varchar2(15),  
7  Last_name varchar2(15),  
8  nationality varchar2(30),  
9  health_conditions varchar2(30),  
10 camp_number char(5),  
11 Foreign key (Camp_number) references camp(camp_num));  
  
Table created.
```

## 6) Board

```
SQL> create table board (  
2 ID char(10),  
3 VIN varchar2(15),  
4 Trip_number number(4),  
5 PRIMARY KEY( id,VIN,TRIP_NUMBER),  
6 Foreign key (Vin,trip_number) references transportation(Vin,trip_number),  
7 Foreign key (ID) references Pilgrim (ID));  
  
Table created.
```

## 7) Pilgrimphone

```
SQL> Create table PilgrimPhone (  
2 ID char(10),  
3 phone_num char(10),  
4 Constraint ID_phone_pk primary key (ID,phone_num),  
5 Foreign key (ID) references Pilgrim (ID));  
  
Table created.
```

## Inserting rows in the tables we created

### 1) camp

```
SQL>
SQL> INSERT INTO camp VALUES('111SS','A',17000,'Mina',15);

1 row created.

SQL> INSERT INTO camp VALUES('112SS','B',15000 ,'Mina',20);

1 row created.

SQL> INSERT INTO camp VALUES('113SS','C',12000,' Mina ',30);

1 row created.
```

### 2) employees

```
SQL>
SQL> INSERT INTO employees(ID,Job_title,First_name,Middle_name,Last_name,DOB,camp_num,Supervisor_ID)
  2  VALUES('1104442221','Manager','saleh' , 'Ali','alharbi','05 01 1988','111SS','1104442221');

1 row created.

SQL>
SQL> INSERT INTO employees(ID,Job_title,First_name,Middle_name,Last_name,DOB,camp_num,Supervisor_ID)
  2  VALUES('1112222244','Driver','Ahmed' , 'Moath','Alsabih','09 01 1982','111SS','1104442221');

1 row created.

SQL>
SQL> INSERT INTO employees(ID,Job_title,First_name,Middle_name,Last_name,DOB,camp_num,Supervisor_ID)
  2  VALUES('111754543','Nurse','Abdulrahman' , 'khalid','alotibi','03 01 1985','112SS','1104442221');

1 row created.

SQL>
SQL> INSERT INTO employees(ID,Job_title,First_name,Middle_name,Last_name,DOB,Camp_num,Supervisor_ID)
  2  VALUES('1119243319','Doctor','Saud' , 'Mohammed','aljami','03 01 1985','113SS','1104442221');

1 row created.
```

### 3) Trips

```
SQL>
SQL> INSERT INTO trips(Trip_number,destination,date_time,start_location) VALUES(3331, 'Arafah','19 07 2022','Mina');

1 row created.

SQL>
SQL> INSERT INTO trips(Trip_number,destination,date_time,start_location) VALUES(3332, 'Arafah','19 07 2022','Mina'
  2  );

1 row created.

SQL> INSERT INTO trips(Trip_number,destination,date_time,start_location) VALUES(3333, 'Arafah','19 07 2022','Mina'
  2  );

1 row created.
```

#### 4) Transportations

```
SQL> INSERT INTO transportation(Vin,Vehicle_type,Driver_ID,Trip_number) VALUES('LN9184','Bus','1112222244',3331);
1 row created.

SQL> INSERT INTO transportation(Vin,Trip_number,Vehicle_type,Driver_ID) VALUES('LN9184',3332,'Bus','1112222244');
1 row created.

SQL> INSERT INTO transportation(Vin,Trip_number,Vehicle_type,Driver_ID) VALUES('ET7132',3333,'Bus','1112222244');
1 row created.

SQL> INSERT INTO transportation(Vin,Trip_number,Vehicle_type,Driver_ID) VALUES('BE5197',3331,'Bus','1112222244');
1 row created.
```

#### 5) Pilgrim

```
SQL> INSERT INTO Pilgrim (ID,O_O_B,Sex,first_name, Middle_name, Last_name,nationality,health_conditions,camp_number)
  2  VALUES('1118739888','02 01 1998','F','Sara','Nawaf','Alotibi','Saudi','Good', '111SS');
1 row created.

SQL> INSERT INTO Pilgrim (ID,O_O_B,Sex,first_name, Middle_name, Last_name,nationality,health_conditions,camp_number)
  2  VALUES('1113311561','03 01 1996','M','Rayan','Salam','alzahrani','Saudi','Good', '112SS');
1 row created.

SQL> INSERT INTO Pilgrim (ID,O_O_B,Sex,first_name, Middle_name, Last_name,nationality,health_conditions,camp_number)
  2  VALUES('1113214321','04 01 1982','F','Norah','youssf','alqurashi','Egypt','Good', '113SS');
1 row created.
```

#### 6) Board

```
SQL> insert into board values('1118739888', 'LN9184',3331);
1 row created.

SQL> insert into board values('1113311561', 'ET7132',3333);
1 row created.

SQL> insert into board values('1118739888', 'LN9184',3332);
1 row created.

SQL>
SQL> INSERT INTO PilgrimPhone (ID,phone_num) VALUES('1118739888','0504165844');
1 row created.
```

## 7) Pilgrimphone

```
SQL>
SQL> INSERT INTO PilgrimPhone (ID,phone_num) VALUES('1118739888','0504165844');
1 row created.

SQL> INSERT INTO PilgrimPhone (ID,phone_num) VALUES('1118739888','0553587890');
1 row created.

SQL> INSERT INTO PilgrimPhone (ID,phone_num) VALUES('1113311561','0550136549');
1 row created.

SQL> INSERT INTO PilgrimPhone (ID,phone_num) VALUES('1113214321','0558126856');
1 row created.
```



*DML commands:*

*Queries:*

*Q: display all trip numbers that will be after 1-1-2022*

```
SQL> select trip_number
  2  from trips
  3  where date_time > '01-01-2022'
  4  order by trip_number;

TRIP_NUMBER
-----
      3331
      3332
      3333
```

*Q: find all id for pilgrims that are foreigners*

```
SQL> SELECT id
  2  FROM Pilgrim
  3  WHERE nationality <> 'Saudi';

ID
-----
1113214321
```

*Q: find how many female pilgrims in each camp*

```
SQL> SELECT camp_number, COUNT (ID)
  2  FROM Pilgrim
  3  WHERE SEX = 'F'
  4  GROUP BY camp_number;

CAMP_  COUNT(ID)
-----
11355          1
11155          1
```

*Q: display is there a camp number that has more than one worker and how many are that*

```
SQL> SELECT CAMP_NUM, COUNT (ID)
  2  FROM EMPLOYEES
  3  GROUP BY CAMP_NUM
  4  HAVING COUNT (ID) >= 2;

CAMP_  COUNT(ID)
-----
11155          2
```

*Q: display camp number that cost between 1200 and 1500*

```
SQL>
SQL> SELECT CAMP_NUM
  2  FROM CAMP
  3  WHERE COST BETWEEN 12000 AND 15000;

CAMP_
-----
11255
11355
```

*Q: find the maximum cost for camps*

```
SQL> SELECT MAX (COST)
  2  FROM CAMP;

MAX(COST)
-----
      17000
```

## Work Distribution:

NAME	ID	Percentage	WORK
<i>Reem Rashed Alzahrani</i>	<i>442004138</i>	<i>100%</i>	<i>All the work was divided evenly, so we all did a bit of everything.</i>
<i>Waad Abdulrahman Alsabih</i>	<i>442004332</i>	<i>100%</i>	
<i>Nora Omar Alabdulkarim</i>	<i>442001770</i>	<i>100%</i>	
<i>Noura Abdullah Almutirie</i>	<i>442004509</i>	<i>100%</i>	
<i>Nujud Ghayib Alharbi</i>	<i>442001516</i>	<i>100%</i>	
<i>Tahani Falah Alqahtani</i>	<i>442003229</i>	<i>100%</i>	
<i>Najlaa Bin oraier</i>	<i>٤٣٨٠٠٢٠٨٦</i>	<i>٪٨٠٠</i>	