

**DATABASE PROJECT:**

**RAILWAY TICKET RESERVATION SYSTEM**

**SUBMITTED BY:**

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**SUBMITTED TO:**

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**DELIVERABLE 4:**

create database reservesystem

use reservesystem

create table station(

station\_id varchar(40) primary key not null,

station\_name varchar(40) not null,

operational\_cost money not null,

A\_name varchar(40) not null, --A stands for Administrator

A\_cnic bigint not null,

A\_phoneNo bigint not null,

A\_DOB date not null,

A\_gender nvarchar(10) not null,

A\_username nvarchar(40) not null,

A\_password varchar(40) not null,

);

insert into station(station\_id,station\_name,operational\_cost,A\_name,A\_cnic,A\_phoneNo,A\_DOB,A\_gender,A\_username,A\_password)

values ('RWP01','Rawalpindi Station',900000,'Peyton Goodboddy',3553715728103, 03451827327,'5/29/1996', 'Male', 'pgoodboddy0@rwp.edu', 'Coder18'),

('SAR02','Sargodha Station',700000,'Grayson Tim',3353715398903, 03335129327,'2/19/1979', 'Male', 'Tim@sar.edu', 'instict091'),

('LHR09','Lahore Station',500000,'Tim David',3453715398904, 03452451627,'2/23/1980', 'Male', 'David@lhr.edu', 'mango29'),

('ISB03','Islamabad Station',100000,'Maxwell goodby',3553713849503, 03215136592,'10/12/1993', 'Male', 'goodby@isb.edu', 'oksmko0001'),

('FAIS06','Faislabad Station',9000000,'Warner David',3553736251603, 03227384581,'02/24/1999', 'Male', 'goodby@isb.edu', 'oksmko0001');

create table employee(

E\_id nvarchar(40) primary key not null,

E\_name nvarchar(40) not null,

E\_salary money not null,

E\_designation nvarchar(40) not null,

E\_Address nvarchar(max) not null,

E\_joiningTime date not null,

E\_workTime varchar(40) not null,

station\_id varchar(40) not null,

constraint fk\_station foreign key(station\_id) references station(station\_id),

);

insert into Employee (E\_id, E\_name,E\_salary, E\_designation,E\_Address, E\_joiningTime, E\_workTime,station\_id)

values ('F01', 'Shelagh Klugel', 80000 , 'Manager', 'House no 21 Qzi St','6/30/2002', '4 hrs', 'LHR09'),

('F02', 'Tim Roger', 80000 , 'Manager', 'House no 15 Lawrence St','9/30/2000', '8 hrs', 'FAIS06'),

('F03', 'Anil Koupe', 70000 , 'Assistant', 'House no 3 Mall Rd','4/30/1996', '9 hrs', 'ISB03'),

('F04', 'Ahmed Ali', 40000 , 'Clerk', 'House no 5 Jail Rd','9/20/1998', '8 hrs', 'SAR02'),

('F05', 'Moazzam', 60000 , 'Assistant', 'House no 76 Jail Rd','6/19/1999', '7 hrs', 'RWP01'),

('F06', 'Ariagh Kornough', 90000 , 'Manager', 'House no 54 Gulberg St','7/10/1980', '8 hrs', 'LHR09');

create table trainsAndTrainSchedule(

train\_id nvarchar(40) primary key not null,

running\_cost money not null,

Train\_type nvarchar(40) not null,

Departure\_time time not null,

);

insert into trainsAndTrainSchedule(train\_id,running\_cost,Train\_type,Departure\_time)

values ('T01',50000,'Economy','04:00:00'),

('T02',40000,'Lower-AC','05:00:00'),

('T03',60000,'Parlour','03:00:00'),

('T04',80000,'Business-Class','07:00:00')

create table Routess(

Route\_id nvarchar(40) primary key not null,

train\_id nvarchar(40) not null,

Source\_Sid nvarchar(40) not null,

Destination\_Sid nvarchar(40) not null,

Route\_length varchar(40) not null,

Estimated\_time nvarchar(40) not null,

station\_id varchar(40) not null,

constraint fk\_trainsSchedule foreign key(train\_id)

references trainsAndTrainSchedule(train\_id),

constraint fk\_station01 foreign key(station\_id)

references station(station\_id),

);

insert into Routess(Route\_id,train\_id,Source\_Sid,Destination\_Sid,Route\_length,Estimated\_time,station\_id)

values ('RP01','T01','ISB02','LHR11','398 km','5 Hrs','RWP01'),

('SR01','T02','LHR11','SAR01','200 km','3 Hrs','SAR02'),

('ISB01','T03','FAIS09','ISB02','298 km','4 Hrs','ISB03'),

('FS01','T04','ISB02','FAIS09','200 km','2 Hrs','FAIS06')

create table Seats\_tickets(

Seat\_id nvarchar(40) primary key not null,

p\_cnic bigint not null, -- p stands for Passenger

Departure\_time time not null,

train\_id nvarchar(40) not null,

ticket\_id nvarchar(40) not null,

constraint fk\_trainsSchedule1 foreign key (train\_id)

references trainsAndTrainSchedule(train\_id),

);

insert into Seats\_tickets(Seat\_id,p\_cnic,Departure\_time,train\_id,ticket\_id)

values('S01',3520298348183,'04:30:00','T01','ticket09'),

('S02',3520228126679,'06:00:00','T02','ticket06'),

('S03',3520129374515,'07:30:00','T03','ticket10'),

('S04',3520256748392,'12:00:00','T04','ticket12')

create table passenger(

p\_name nvarchar(40) not null,

p\_cnic bigint primary key not null,

p\_email nvarchar(40) not null,

);

insert into passenger(p\_name,p\_cnic,p\_email)

values('Usman',3520298348183,'usman664@gmail.com'),

('Fazeel',3520228126679,'fazeel08@gmail.com'),

('Arman',3520294563962,'arman01@yahoo.com'),

('Yousaf',3520246130637,'yousaf99@hotmail.com')

create table books(

p\_cnic bigint not null,

train\_id nvarchar(40) not null unique,

Seat\_id nvarchar(40) not null,

schedule DATETIME NOT NULL,

constraint fk\_p\_cnic foreign key (p\_cnic)

references passenger(p\_cnic),

constraint fk\_train\_id foreign key (train\_id)

references trainsAndTrainSchedule(train\_id),

constraint fk\_Seat\_id foreign key (Seat\_id)

references Seats\_tickets(Seat\_id),

primary key (train\_id, Seat\_id, schedule)

);

insert into books

values(3520298348183,'T01','S01','20120618 10:34:09 AM')

Select \* FROM books;

select \* from station;

select \* from employee;

select \* from Routess;

select \* from trainsAndTrainSchedule;

select \* from Seats\_tickets;

select \* from books;

select \* from passenger;

-- Procedure 1

CREATE PROCEDURE SearchEmployee @E\_ID nvarchar(40)

as

begin

select \* from Employee where (E\_id=@E\_ID)

end

exec SearchEmployee 'F01';

drop proc SearchEmployee;

-- Procedure 2

create proc SearchPassenger

@p\_cnic bigint

as

begin

select \* from passenger where p\_cnic=@p\_cnic

end

exec SearchPassenger 3520298348183;

drop proc SearchPassenger;

-- Procedure 3

create proc cancelSeatBooking @Seat\_id nvarchar(40)

as

begin

delete from books where books.Seat\_id = @Seat\_id

select \* from books

end

exec cancelSeatBooking 'S01'

drop proc cancelSeatBooking;

-- Procedure 4

Create proc SearchSeatbyId @Seat\_id nvarchar(40)

as

begin

select passenger.p\_cnic , passenger.p\_name , Seats\_tickets.Seat\_id , Seats\_tickets.ticket\_id , Seats\_tickets.train\_id, Seats\_tickets.Departure\_time

from passenger join Seats\_tickets

on Seats\_tickets.p\_cnic = passenger.p\_cnic

where Seats\_tickets.Seat\_id = @Seat\_id

end

exec SearchSeatbyId 'S01';

drop procedure SearchSeatbyId;

-- procedure 5

create proc IncrementEmployeeSalary @E\_designation nvarchar(40), @IncrementSalaryPer int

as

begin

select \* from employee where E\_designation = @E\_designation

update employee set E\_salary = E\_salary + (E\_salary \* @IncrementSalaryPer/100)

where employee.E\_designation = @E\_designation

select \* from employee where E\_designation = @E\_designation

end

exec IncrementEmployeeSalary 'Manager', 5

drop proc IncrementEmployeeSalary

-- Procedure 6

create proc bookSeat @p\_cnic bigint, @train\_id nvarchar(40),@Seat\_id nvarchar(40),@schedule DATETIME

as

begin

insert into books values (@p\_cnic,@train\_id,@Seat\_id,@schedule)

select \* from books

end

exec bookSeat 3520298348183,'T02','S02','20130920 11:30:00 AM'

drop proc bookSeat;

-- View1

create view trainSchedule

as

select train\_id,Train\_type,Departure\_time from trainsAndTrainSchedule

select \* from trainSchedule

drop view trainSchedule

--View2

create view ticket\_info

as

select ticket\_id,Seat\_id,passenger.p\_cnic,passenger.p\_name,trainsAndTrainSchedule.train\_id,trainsAndTrainSchedule.Train\_type,trainsAndTrainSchedule.Departure\_time

from Seats\_tickets join passenger

on Seats\_tickets.p\_cnic = passenger.p\_cnic

join trainsAndTrainSchedule

on Seats\_tickets.train\_id = trainsAndTrainSchedule.train\_id

select \* from ticket\_info

drop view ticket\_info

-- View3

create view stationInfoOfEmployeeWithLessSalary

as

select station.station\_id,station\_name,A\_cnic,A\_name,employee.E\_id,employee.E\_name,employee.E\_designation,employee.E\_salary

from station join employee

on employee.station\_id = station.station\_id

where employee.E\_salary < 80000

select \* from stationInfoOfEmployeeWithLessSalary

drop view stationInfoOfEmployeeWithLessSalary

-- View4

create view totalEmployeeAtEachStation

as

select station\_id , count (E\_id) as [employee at each station]

from employee

group by station\_id

select \* from totalEmployeeAtEachStation

drop view totalEmployeeAtEachStation

-- view5

create view scheduleInfo as

select trainsAndTrainSchedule.train\_id , trainsAndTrainSchedule.Train\_type,trainsAndTrainSchedule.Departure\_time, Routess.Route\_id , Routess.Destination\_Sid ,Routess.Source\_Sid,station.station\_id,station.station\_name

from trainsAndTrainSchedule join Routess

on trainsAndTrainSchedule.train\_id = Routess.train\_id

join station

on Routess.station\_id = station.station\_id

select \* from scheduleInfo

drop view scheduleInfo