--CREATE TABLE STUDENTS

Create table students(

regno integer primary key,

name varchar2(30),

phonenum number,

address varchar2(30),

roomalloc number

);

Alter Table students Add CONSTRAINT fk\_roomalloc

FOREIGN KEY (roomalloc)

REFERENCES rooms(roomno);

Alter table students drop constraint fk\_roomalloc

--ALTER TABLE STUDENTS ADD JOIN DATE

alter table students add (joindate Date);

--Alter Table for Gender

Alter Table students add(gender varchar2(2));

Alter Table students MODIFY gender NOT NULL;

--Constraint on Gender

Alter Table students Add CONSTRAINT gen

Check (gender IN('M','F','m','f'));

Alter Table students MODIFY mess default 'M';

--Constraint Gender Check for Room Allocation

Alter Table students Add CONSTRAINTS gen\_check

Check (Room IN(Gender='M' , 'Gender='F'));

--Constraints:ADD MESS AS TRUE/FALSE

ALTER TABLE students ADD (mess varchar2(4));

Alter Table students Add CONSTRAINT mess\_present

Check (mess IN('Yes','No','yes','no'));

Alter Table students MODIFY mess default 'No';

--Drop Constraint

ALTER TABLE students

DROP CONSTRAINT mess\_present

--ALTER TABLE NAME AS NOT NULL

alter table students MODIFY name NOT NULL;

--ALTER TABLE PHONE NO

alter table students MODIFY phonenum UNIQUE;

--ALTER TABLE Room Allocated

alter table students MODIFY roomalloc Not Null;

Describe students;

--DATA ENTRY and Modification

INSERT INTO students(regno, name, phonenum, address, roomalloc,joindate,mess)

VALUES (1, 'ABC', 12343212345,'Rawalpindi',1,'1-sep-14','No');

INSERT INTO students(regno, name, phonenum, address, roomalloc,joindate)

VALUES (2, 'Fai', 09876567893,'Rawalpindi',1,'12-sep-14');

INSERT INTO students(regno, name, phonenum, address, roomalloc,joindate)

VALUES (3, 'Sha', 12343654780,'Khewra',1,'15-feb-15');

INSERT INTO students(regno, name, phonenum, address, roomalloc,joindate)

VALUES (4, 'Muha', 05436732168,'Islamabad',1,'15-feb-15');

INSERT INTO students(regno, name, phonenum, address, roomalloc,joindate,mess)

VALUES (5, 'Haq', 03341235432,'Islamabad',2,'15-sep-15','Yes');

INSERT INTO students(regno, name, phonenum, address, roomalloc,joindate,mess)

VALUES (6, 'Asim', 08531986732,'Muzzafargarh',3,'15-sep-14','Yes');

INSERT INTO students(regno, name, phonenum, address, roomalloc,joindate,mess)

VALUES (7, 'Pizza', 01231234564,'Sialkot',25,'15-sep-15','Yes');

INSERT INTO students(regno, name, phonenum, address, roomalloc,joindate,mess)

VALUES (8, 'Asa', 01231243221,'Narrowal',25,'15-sep-15','Yes');

INSERT INTO students(regno, name, phonenum, address, roomalloc,joindate,mess)

VALUES (9, 'Mar', 01231234567,'Wah',4,'25-sep-15','Yes');

INSERT INTO students(regno, name, phonenum, address, roomalloc,joindate,Gender)

VALUES (10, 'Getr', 0123123452,'Okara',4,'26-sep-15','F');

Update students SET Gender='M' WHERE regno>=1 And regno<=6;

Update students SET roomalloc=4,Gender='F' WHERE regno>=7 And regno<=9;

Describe rooms;

--Data Fetching Queries

Drop table students;

--CREATE TABLE Rooms

Create table rooms(

roomno integer primary key,

facility varchar2(30)

);

--Altering Rooms Types

Alter Table rooms Add CONSTRAINT rtype

Check (facility IN('AC/Net/TV','Fan/Net/TV','Fan/Net'));

Alter table rooms drop constraint str

INSERT INTO rooms( roomno, facility)

VALUES (1,'AC/Net/TV');

INSERT INTO rooms( roomno, facility)

VALUES (2,'Fan/Net/TV');

INSERT INTO rooms( roomno, facility)

VALUES (3,'Fan/Net/TV');

INSERT INTO rooms( roomno, facility)

VALUES (4,'Fan/Net');

Select \*

From rooms;

Drop table rooms

Create table messinfo(

rgno integer primary key,

amount integer default 3000,

dishes varchar2(30),

messdate DATE default SYSDATE

);

Alter Table messinfo Add CONSTRAINT fk\_bill

FOREIGN KEY (rgno)

REFERENCES students(regno);

INSERT INTO messinfo(rgno,dishes,messdate,amount)

VALUES (5,'Rice',Sysdate,3000);

INSERT INTO messinfo(rgno,dishes,messdate,amount)

VALUES (6,'Shake',Sysdate,3000);

INSERT INTO messinfo(rgno,dishes,messdate,amount)

VALUES (7,'Curry',Sysdate,3000);

INSERT INTO messinfo(rgno,dishes,messdate,amount)

VALUES (8,'Burger',Sysdate,3000);

INSERT INTO messinfo(rgno,dishes,messdate,amount)

VALUES (9,'Omlet',Sysdate,3000);

UPDATE messinfo SET dishes='Pizza' Where rgno=9;

Alter table messinfo modify dishes NOT NULL

describe messinfo;

Drop table messinfo

Create table matt(

regn integer primary key,

Attendance varchar2(2) Not Null,

mesd DATE default SYSDATE

);

Alter Table matt Add CONSTRAINT fk\_att

FOREIGN KEY (regn)

REFERENCES messinfo(rgno);

INSERT INTO matt(regn,attendance,mesd)

VALUES (5,'P',Sysdate);

INSERT INTO matt(regn,attendance,mesd)

VALUES (6,'L',Sysdate);

INSERT INTO matt(regn,attendance,mesd)

VALUES (7,'P',Sysdate);

INSERT INTO matt(regn,attendance,mesd)

VALUES (8,'L',Sysdate);

INSERT INTO matt(regn,attendance,mesd)

VALUES (9,'P',Sysdate);

Drop table matt

-----------------------------------------------------------------------------------All Queries

-- 1: For students who are using mess and their bill after 1 day

Select students.name, students.regno,messinfo.amount-200 As "Mess Bill Tommorow",messinfo.messdate+1 As "Date"

From students join messinfo on students.regno = messinfo.rgno

Where students.mess='Yes';

-- 2: For students who are using mess and their bill after n days where n=5

Select students.name, students.regno,messinfo.amount-(200\*5) As "Mess Bill Tommorow",messinfo.messdate+5 As "Date"

From students join messinfo on students.regno = messinfo.rgno

Where students.mess='Yes';

-- 3: For students who are not using mess

Select students.name, students.regno

From students

Where students.mess='No';

-- 4: For Checking rooms

Select students.roomalloc,students.name,rooms.facility

From students join rooms on students.roomalloc = rooms.roomno

Order By rooms.roomno;

-- 5: For Checking info About All Male Students

Select students.name As "Boys Name",students.roomalloc AS "Room No"

From students

Where students.gender='M' OR students.gender='m';

-- 6: For Checking info About All Female Students Who Have Mess

Select students.name As "Girls Name",students.roomalloc AS "Room No"

From students

Where students.gender='f' OR students.gender='F' And students.mess='Yes';

-- 7: Attendance of students

Select matt.regn AS "REG NUM",matt.attendance,students.name

From students join matt on students.regno = matt.regn

Where students.mess='Yes';

--8 Update mess info  
UPDATE messinfo

SET amount = amount \* 1.5;

--9 Join Students names and address

SELECT students.name||' lives in '||students.address

FROM students.regno , students.address

--10 Students and their rooms

SELECT students.roomalloc FROM students

UNION

SELECT rooms.roomno FROM room

ORDER BY roomno;

--11 View  
  
CREATE VIEW v AS

SELECT students.regn,students.name

FROM students

WHERE students.roomalloc=5;

--12 count students  
Count(\*)  
From students.regnum

Where sudents.roomalloc<4;

--13 Strings  
select LEFT(students.address,3)  
From students

--13

Select \*

From students;

Select \*

From matt;

Select \*

From messinfo;