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1 Lab 6

1.1 Common Solution

```
create database DreamHome;

use DreamHome;



--creating branch table

create table Branch (branchNo varchar(20) NOT NULL Primary Key, street varchar(100) NOT NULL, city
varchar(50) NOT NULL,

postcode varchar(20) NOT NULL);



--creating staff table

create table Staff (staffNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName
varchar(50) NOT NULL,

position varchar(50) NOT NULL, sex varchar(1) NOT NULL, DOB DateTime NOT NULL, salary DECIMAL
NOT NULL,

branchNo varchar(20) NOT NULL References Branch(branchNo));



--creating client table

create table Client (clientNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName
varchar(50) NOT NULL,

telNo varchar(20) NOT NULL, prefType varchar(50) NOT NULL, maxRent DECIMAL NOT NULL);
```

```
--creating privateowner table

create table PrivateOwner (ownerNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL,
lName varchar(50) NOT NULL,

[address] varchar(50) NOT NULL, telNo varchar(20) NOT NULL);



--creating PropertyForRent table

create table PropertyForRent (propertyNo varchar(20) NOT NULL PRIMARY KEY, street varchar(100) NOT
NULL, city varchar(50) NOT NULL,

postcode varchar(20) NOT NULL, type varchar(10) NOT NULL, rooms int NOT NULL, rent DECIMAL NOT
NULL,
ownerNo varchar(20) References PrivateOwner(ownerNo), staffNo varchar(20) NOT NULL References
Staff(staffNo),
branchNo varchar(20) NOT NULL References Branch(branchNo));

--creating viewing table
create table Viewing (clientNo varchar(20) NOT NULL References Client(clientNo),
propertyNo varchar(20) NOT NULL References PropertyForRent(propertyNo), viewDate DateTime NOT NULL,
comment varchar(200) NOT NULL)

--creating registration table
create table Registration(clientNo varchar(20) NOT NULL References Client(clientNo),
branchNo varchar(20) NOT NULL References Branch(branchNo),staffNo varchar(20) NOT NULL References
Staff(staffNo),dateJoined DateTime NOT NULL);

--inserting data into branch table
INSERT into Branch (branchNo, street, city, postcode)
VALUES
('C001','I#38 G-13', 'ISB','8092'),
('C002', 'I#78 Supply', 'ABT', '1278'),
('C003', 'I#79 I-10/2', 'ISB', '3987'),
('C004','I#78 Mandia', 'ABT', '2576'),
('C005','I#85 Mirpur', 'ABT', '9087'),
('C006','I#86 Supply', 'ISB', '1265'),
('C007','I#895 Cantt', 'ABT', '3489'),
('C008','I#55 Kalapul', 'ABT', '9871'),
('C009','I#986 Beer', 'HAR', '9087'),
('C010','I#12 Cantt', 'HAV', '5431'),
('A001','3rd Street Satellite Town', 'SGD','40100'),
('A002', '1st Block', 'FSD', '38000'),
('A003', '4th Street Urdu bazar', 'SGD', '40100'),
('A004','5th Block', 'FSD', '38000'),
('A005','3rd Street Urdu bazar', 'SGD', '40100'),
```

('A006','Sixth Road', 'RWP', '43600'),
('A007','Saadaar', 'RWP', '43600'),
('A008','Deput', 'RWP', '43600'),
('A009','3rd street University Road', 'SGD', '40100'),
('A010','2nd street Queens Chock', 'SGD', '40100'),
('f002','H#38 G-13', 'ISB','8092'),
('f089', 'L-20 maddar ', 'ABT', '1278'),
('f003', 'k#308 h-1', 'LHR', '3987'),
('f004','k#980 Mirpur', 'LHR', '2576'),
('f005','I#85 kott', 'ABT', '9087'),
('f006','k#986 Beer', 'ISB', '1265'),
('f007','k#5895 Kahan pour', 'LHR', '3489'),
('f008',' K#806 Mughal Pura', 'ABT', '9871');

--inserting data into staff table
insert into Staff (staffNo, fName, lName, position, sex, DOB, salary, branchNo)
VALUES ('AD0001', 'Adil', 'Mehmood', 'Assistant', 'M', CAST(0x0000641000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A001'),
('AD0002', 'Abdullah', 'Javed', 'Manager', 'M',CAST(0x0000531200000000 AS DateTime), CAST(18000 AS Decimal(18,0)), 'A002'),
('AD0003', 'Hamza', 'Mushtaq', 'Assistant', 'M',CAST(0x000056D400000000 AS DateTime), CAST(12000 AS Decimal(18,0)), 'A003'),
('AD0004', 'Huzaifa', 'Abid', 'Assistant', 'M', CAST(0x0000C85800000000 AS DateTime), CAST(24000 AS Decimal(18,0)), 'A004'),
('AD0005', 'Ayesha', 'Latif', 'Assistant', 'F', CAST(0x0000CFF200000000 AS DateTime), CAST(30000 AS Decimal(18,0)), 'A005'),
('AD0006', 'Komal', 'Mushtaq', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A006'),
('AD0007', 'Rafiya', 'Siddique', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A007'),
('AD0008', 'Alina', 'Mukhtiar', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A008'),
('AD0009', 'Kamran', 'Ali', 'Supervisor', 'M', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A009'),
('AD00010', 'Khurram', 'Shehzad', 'Supervisor', 'M', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A0010')
('SG5', 'Mary', 'Howe', 'Assistant', 'F', '1988/08/23', 20000, 'C002'),
('SL21', 'David', 'Ford', 'Assistant', 'M','1987/11/9', 100000, 'C003'),
('SG37', 'Anna', 'Bleech', 'Supervisor', 'F','1986/12/8', 90000, 'C003'),
('SA9', 'Susa', 'Brand', 'Receptionist', 'F', '1989/5/9', 120000, 'C003'),
('SG14', 'Joh', 'White', 'Manager', 'M', '1992/2/12', 100000, 'C004'),
('SL41', 'Julie', 'Lee', 'Assistant', 'F', '1990/8/3', 50000, 'C002'),
('SR68', 'Akbar', 'Shoaib', 'Assistant Manager', 'M', '1996/9/8', 70000, 'C005'),
('SK32', 'Mahrukh', 'Khan', 'Customer Service', 'F', '1994/9/8', 60000, 'C010'),
('SB83', 'Ali', 'Hassan', 'Receptionist', 'M', '1991/4/6', 40000, 'C009'),
(' SP98', 'Hamid', 'Qazi', 'Security Guard', 'M', '1982/9/12', 10000, 'C007'),
('Sh4', 'Saba', 'Howe', 'Assistant', 'F', '1999/08/23', 30000, 'f002'),
('Sk21', 'Julie', 'Ford', 'Assistant', 'M','1985/11/9', 50000, 'f003'),
('Sh37', 'Anna', 'Bleech', 'Supervisor', 'F','1987/12/8', 80000, 'f003'),

('Sh89', 'Sana', 'Brand', 'Receptionist', 'F', '2000/5/9', 100000, 'f003'),
('Sk14', 'Jon', 'White', 'Manager', 'M', '1993/2/12', 300000, 'f004'),
('Sk41', 'Julie', 'Lee', 'Assistant', 'F', '1988/3', 50000, 'f002'),
('Sl68', 'Arham', 'Saqib', 'Assistant Manager', 'M', '1996/9/8', 70000, 'f005'),
('SK92', 'Mushk', 'Khan', 'Customer Service', 'F', '1994/9/8', 60000, 'f010'),
('Sh83', 'Ali', 'Hassan', 'Receptionist', 'M', '1991/4/6', 40000, 'f009'),
('So88', 'Hira', 'Qazi', 'Security Guard', 'M', '1982/9/12', 10000, 'f007');

--inserting into client table
insert into client (clientNo, fName, lName, telNo, prefType, maxRent)
values ('AD001', 'Muhammad', 'Hamza', '0341-3487431', 'Apartment', '160000'),
('AD002', 'Muhammad', 'Ali', '0341-3412312', 'Apartment', '180000'),
('AD003', 'Asim', 'Azhar', '0347-2346553', 'House', '24000'),
('AD004', 'Adil', 'Mehmood', '0341-3123565', 'Apartment', '5000'),
('AD005', 'Atif', 'Aslam', '0320-3983493', 'House', '3000'),
('AD006', 'Touqeef', 'Rehman', '0312-9817818', 'Room', '2000'),
('AD007', 'Haseeb', 'Khan', '0300-9182713', 'Room', '1400'),
('AD008', 'Sharjeel', 'Khan', '0344-3912399', 'House', '2000'),
('AD009', 'Ahmed', 'Shah', '0340-1908761', 'Apartment', '20000'),
('AD0010', 'Hamza', 'Javed', '0331-7096413', 'House', '2000')
('1', 'Hamza', 'Muhstaq', '0341-3487431', 'Apartment', '16000'),
('2', 'Hamza', 'Abid', '0341-3412312', 'Apartment', '18000'),
('3', 'Imad', 'Ahmad', '0347-2346553', 'House', '24000'),
('4', 'Adil', 'Mehmood', '0341-3123565', 'Apartment', '15000'),
('5', 'Zullkif', 'Rehman', '0320-3983493', 'House', '30000'),
('6', 'Huzaifa', 'Abid', '0312-9817818', 'Room', '12000'),
('7', 'Haseeb', 'Khan', '0300-9182713', 'Room', '14000'),
('8', 'Sharjeel', 'Khan', '0344-3912399', 'House', '22000'),
('9', 'Ahmed', 'Shah', '0340-1908761', 'Apartment', '20000'),
('10', 'Hamza', 'Javed', '0331-7096413', 'House', '24000');

--inserting into privateowner table
insert into privateowner (ownerNo, fName, lName, address, telNO)
values('AD0001','Huzaifa','Abid','G-13', '0331-132326543'),
('AD0002','Hamza','Khalid', 'I#78 Supply', '0332-913268'),
('AD0003','Adeel','Waraich', 'I#79 I-10/2', '0330-978323223'),
('AD0004','Zeeshan','Akhtar','I#78 Mandia', '0336-248789'),
('AD0005','Asif','Niazi','I#85 Supply', '0344-12373466'),
('AD0006','Shan','Shahd','I#86 Supply', '0324-22145538'),
('AD0007','Hanzala','Maqsood','I#895 Cantt', '0314-7787672'),
('AD0008','Ahmed','Ali','I#55 Kalapul', '0304-5591231'),
('AD0009','Zain','Farooq','I#986 Beer', '0334-322448123'),
('AD00010','Ibrahim','Uziar','I#12 Cantt', '0314-91442234')
('13346','ayesha','latif','f-12', '0331-1436543'),
('20283','Hafsa','Abid', 'I#78 cantt', '0332-91234568'),
('25456','Adil','Khan', 'I#79 cantt', '0330-9756565'),
('56362','Zanib','saqib','k#78 Mughal Pura', '0336-12789'),
('11298','Asif','Kamal', 'k#30 h-1', '0344-1237686'),
('56876','Sara','Ali','L-20 maddar', '0324-2214598'),

('43635','Hina','mujahid','k#895 Cantt', '0314-98887672'),
('15665','Ahmed','Hassan','k#55 Kalapul', '0304-9991231'),
('85468','zoya','abid','k#986 Beer', '0334-3228123'),
('17876','ayesha','Saqib','k#12 Cantt', '0314-9122234');

--inserting into propertyforrent table
insert into propertyforrent (propertyNo, street, city, postcode, type, rooms, rent, ownerNo, staffNo, branchNo)
values ('AD101','I#38 G-13', 'ISB','8092','Room','1','12000','13456','AD01','AD1'),
('AD102','I#78 Mandia', 'ABT','1278','Apartment','2','10000','19283','AD02','AD2'),
('AD103','I#85 Mirpur', 'ISB','3987','Aparment','3','14000','23456','AD03','AD3'),
('AD104','I#12 Cantt', 'ABT','2576','Room','1','8000','87362','AD04','AD4'),
('AD105','I#78 Mandia', 'ISB','9087','Apartment','2','10000','12098','AD05','AD5'),
('AD106','I#55 Kalapul', 'ABT','1265','Apartment','3','15000','90876','AD06','AD6'),
('AD107','I#12 Cantt', 'ABT','3489','Apartment','4','18000','78635','AD07','AD7'),
('AD108','I#86 Supply', 'ISB','1265','House','4','24000','17865','AD08','AD8'),
('AD109','I#38 G-13', 'ISB','9087','House','3','22000','87268','AD09','AD9'),
('AD1010','I#86 Supply', 'ABT','5431','Apartment','2','14000','AD10','SR68','AD10'),
('A110','I#38 G-13', 'ISB','8092','Room','1','12000','13456','SA9','C001'),
('B110','I#78 Mandia', 'ABT','1278','Apartment','2','10000','19283','SG14','C002'),
('A111','I#85 Mirpur', 'ISB','3987','Aparment','3','14000','23456','SG37','C003'),
('C065','I#12 Cantt', 'ABT','2576','Room','1','8000','87362','SG5','C004'),
('D124','I#78 Mandia', 'ISB','9087','Apartment','2','10000','12098','SL21','C005'),
('G116','I#55 Kalapul', 'ABT','1265','Apartment','3','15000','90876','SL41','C006'),
('A140','I#12 Cantt', 'ABT','3489','Apartment','4','18000','78635','SP98','C007'),
('H180','I#86 Supply', 'ISB','1265','House','4','24000','17865','SK32','C008'),
('A230','I#38 G-13', 'ISB','9087','House','3','22000','87268','SB83','C009'),
('H210','I#86 Supply', 'ABT','5431','Apartment','2','14000','12876','SR68','C010');

--inserting into registration
insert into registration (clientNo, branchNo,staffNo ,dateJoined)
values ('AD1101','AD1','AD01','1999/12/24'),
("AD1102','AD2','AD02','1991/11/18'),
("AD1103','AD3','AD03','1994/04/12'),
("AD1104','AD4','AD04','1989/01/07'),
("AD1105','AD5','AD05','1995/07/29'),
("AD1106','AD6','AD06','2000/08/19'),
("AD1107','AD7','AD07','1996/11/01'),
("AD1108','AD8','AD08','1986/04/12'),
("AD1109','AD9','AD09','1990/10/05'),
("AD11010','AD10','AD10','1990/05/14'),
('1','C001','SG14','1999/12/24'),
('2','C002','SA9','1991/11/18'),
('3','C003','SG37','1994/04/12'),
('4','C004','SG5','1989/01/07'),
('5','C005','SL21','1995/07/29'),
('6','C006','SL41','2000/08/19'),
('7','C007','SP28','1996/11/01'),
('8','C008','SK32','1986/04/12'),
('9','C009','SB83','1990/10/05'),

('10','C010','SR68','1990/05/14');

--inserting into viewing
insert into viewing(clientNo, propertyNo, viewDate, comment)
values('AD001','A110','2000/05/14','GOOD'),
('AD002','B110','2001/11/21','GOOD'),
('AD003','A111','2001/04/04','GOOD'),
('AD004','C065','2000/01/01','GOOD'),
('AD005','D124','2004/06/19','GOOD'),
('AD006','G116','1999/08/02','GOOD'),
('AD007','A140','2005/07/09','GOOD'),
('AD008','H180','2000/02/26','GOOD'),
('AD009','A230','1997/10/12','GOOD'),
('AD0010','B210','2003/12/24','GOOD'),
('1','A110','2000/05/14','GOOD'),
('2','B110','2001/11/21','GOOD'),
('3','A111','2001/04/04','GOOD'),
('4','C065','2000/01/01','GOOD'),
('5','D124','2004/06/19','GOOD'),
('6','G116','1999/08/02','GOOD'),
('7','A140','2005/07/09','GOOD'),
('8','H180','2000/02/26','GOOD'),
('9','A230','1997/10/12','GOOD'),
('10','B210','2003/12/24','GOOD');

Select distinct(city) from Branch order by city desc;

1.2 ABDULLAH JAVED (SP19-BCS-002)

-- 1. Create Database
create database DreamHome
-- 2. Set My Working Database in Query Editor
use DreamHome

-- 3. Create Tables

-- Branch
create table Branch (branchNo varchar(20) NOT NULL Primary Key, street varchar(100) NOT NULL, city varchar(50) NOT NULL,
postcode varchar(20) NOT NULL);

-- Staff
create table Staff (staffNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName varchar(50) NOT NULL,
position varchar(50) NOT NULL, sex varchar(1) NOT NULL, DOB DateTime NOT NULL, salary DECIMAL NOT NULL,

```
branchNo varchar(20) NOT NULL References Branch(branchNo));

-- Client
create table Client (clientNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName
varchar(50) NOT NULL,
telNo varchar(20) NOT NULL, prefType varchar(50) NOT NULL, maxRent DECIMAL NOT NULL)

-- PrivateOwner
create table PrivateOwner (ownerNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL,
lName varchar(50) NOT NULL,
[address] varchar(50) NOT NULL, telNo varchar(20) NOT NULL)

-- PropertyForRent
create table PropertyForRent (propertyNo varchar(20) NOT NULL PRIMARY KEY, street varchar(100) NOT
NULL, city varchar(50) NOT NULL,
postcode varchar(20) NOT NULL, type varchar(10) NOT NULL, rooms int NOT NULL, rent DECIMAL NOT
NULL,
ownerNo varchar(20) References PrivateOwner(ownerNo), staffNo varchar(20) NOT NULL References
Staff(staffNo),
branchNo varchar(20) NOT NULL References Branch(branchNo));

-- Viewing
create table Viewing (clientNo varchar(20) NOT NULL References Client(clientNo),
propertyNo varchar(20) NOT NULL References PropertyForRent(propertyNo), viewDate DateTime NOT NULL,
comment varchar(200) NOT NULL)

-- Registration
create table Registration(clientNo varchar(20) NOT NULL References Client(clientNo),
branchNo varchar(20) NOT NULL References Branch(branchNo),staffNo varchar(20) NOT NULL References
Staff(staffNo),dateJoined DateTime NOT NULL)

-- 4. Add Sample Data
-- 4.1 Single Row Example
INSERT into Branch (branchNo, street, city, postcode) VALUES ('AB0', 'H#79 I-10/2', 'ISB', '52000');

-- 4.2 Multiple Rows Example
INSERT into Branch(branchNo, street, city, postcode)
VALUES
('AB1', 'H#114 iqbal park', 'SGD', '40100'),
('AB2', 'H#32 COLONY', 'RWP', '54900'),
('AB3','H#71 SHAHEEN PARK', 'FSD', '48800'),
('AB4', 'H#18 ABDULLAH TOWN', 'JHG', '32400'),
('AB5', 'H#12 REHMAN TOWN', 'ISB', '32300'),
('AB6', 'H#42 REHAN TOWN', 'SGD', '40100'),
('AB7', 'H#40 ADIL TOWN ', 'FSD', '23500'),
('AB8', 'H#70 ASAD PARK', 'DIK', '43560'),
('AB9', 'H#12 REMANABAD', 'RWP', '78800'),
('AB10', 'H#230 NEW CANTT', 'PSW', '34987')
```

```
insert into Staff (staffNo, fName, lName, position, sex, DOB, salary, branchNo)
VALUES
('AB21', 'Steve', 'Jobs', 'Director', 'M', CAST(03161998 AS DateTime), CAST(1000000 AS Decimal(10, 0)),
'AB505'),
('AB22', 'Bill', 'Gates', 'Assistant', 'M', CAST(16121998 AS DateTime), CAST(1000000 AS Decimal(10, 0)),
'AB570'),
('AB23', 'Annie', 'Thomson', 'Manager', 'F', CAST(16121998 AS DateTime), CAST(1000000 AS Decimal(10, 0)),
'AB320'),
('AB24', 'Sand', 'Wood', 'Assistant', 'M', CAST(16121998 AS DateTime), CAST(1000000 AS Decimal(10, 0)),
'AB200'),
('AB25', 'John', 'Duo', 'Director', 'M', CAST(16121998 AS DateTime), CAST(1000000 AS Decimal(10, 0)),
'AB571'),
('AB26', 'Penzy', 'Werth', 'Supervisor', 'F', CAST(16121998 AS DateTime), CAST(1000000 AS Decimal(10,
0)),'AB230'),
('AB27', 'Rozi', 'Mith', 'Manager', 'F',  CAST(16121998 AS DateTime), CAST(1000000 AS Decimal(10,
0)),'AB231'),
('AB28', 'Bint', 'Lamo', 'Manager', 'F', CAST(16121998 AS DateTime), CAST(1000000 AS Decimal(10, 0)),
'AB123'),
('AB29', 'Ender', 'Genero', 'Manager', 'F',  CAST(16121998 AS DateTime), CAST(1000000 AS Decimal(10,
0)),'AB576'),
('AB30', 'Lord', 'Curzen', 'Assistant', 'M', CAST(16121998 AS DateTime), CAST(1000000 AS Decimal(10, 0)),
'AB340')


insert into Client (clientNo, fName, lName, prefType, telNo, maxRent)
VALUES ('AB11', 'Armed', 'Goar', 'social media',  '03001234567','20000'),
('AB12', 'Mint', 'Margaret', 'online', '03201234567','18000'),
('AB13', 'Randi', 'Otan', 'social media',  '03101234567','13000'),
('AB14', 'Gorge', 'Bush', 'call', '03111234567','30000'),
('AB15', 'Donald', 'Trump',  'Media', '03021234567','50000'),
('AB16', 'Helry', 'Klintan', 'social media', '03001234567','160000'),
('AB17', 'Lord', 'Curzen', 'network', '03031234567','45000'),
('AB18', 'Real', 'Mont', 'Media', '03001234567','34000'),
('AB19', 'Anthony', 'Broad', 'social media','03041234567','78000'),
('AB20', 'Tom', 'Cruze', 'social media', '03001234567','20000')


insert into PrivateOwner (ownerNo , fName , lName , [address], telNo)
VALUES ('AB31', 'Orthor', 'Due','lahore',  '03001234567'),
('AB32', 'Triple', 'H', 'rawalpindi', '03201234567'),
('AB33', 'Randi', 'Otan', 'islamabad',  '03101234567'),
('AB34', 'Gorge', 'Bush', 'sargodha', '03111234567'),
('AB35', 'Donald', 'Trump',  'faislabad', '03021234567'),
('AB36', 'Helry', 'Klintan', 'karachi', '03001234567'),
('AB37', 'Lord', 'Curzen', 'jhang', '03031234567'),
('AB38', 'Real', 'Mont', 'taxila', '03001234567'),
('AB39', 'Anthony', 'Broad', 'abbotabad','03041234567'),
('AB40', 'Tom', 'Cruze', 'murree', '03001234567')
```

```
insert into  propertyforrent ( propertyNo, street, city, postcode, type, rooms, rent, ownerNo, staffNo, branchNo)

values ('AB41','St#114', 'SGD','40100','4','house','13000','42372','AB001','AB1'),
('AB42','St#114', 'RWP','38900','Apartment','2','10000','45678','AB002','AB2'),
('AB43','St#03', 'ISB','45600','Aparment','3','14000','42347','AB003','AB3'),
('AB44','St#14', 'KAR','12567','Room','1','8000','87362','AB004','AB4'),
('AB45','St#11', 'FSD','35900','Apartment','2','10000','12098','AB005','AB5'),
('AB46','St#18', 'PSW','23800','Apartment','3','15000','90876','AB006','AB6'),
('AB47','St#42', 'LHR','41750','Apartment','4','18000','78635','AB007','AB7'),
('AB48','St#56', 'JHG','28600','House','4','24000','17865','AB008','AB8'),
('AB49','St#32', 'MUL','67700','House','3','22000','87268','AB009','AB9'),
('AB50','St#21', 'SGD','40100','Apartment','2','21000','42300','AB010','AB10');

INSERT INTO Viewing(clientNo, propertyNo, viewDate, comment)
Values('AB51','AB111','2000/05/14','GOOD'),
('AB52','AB222','2000/12/12','GOOD'),
('AB53','AB333','2001/04/04','GOOD'),
('AB54','AB444','2002/01/01','GOOD'),
('AB55','AB555','2003/06/19','GOOD'),
('AB56','AB666','1998/08/02','GOOD'),
('AB57','AB777','2004/07/09','GOOD'),
('AB58','AB888','2005/02/26','GOOD'),
('AB59','AB999','1999/10/12','GOOD'),
('AB60','AB000','2006/12/24','GOOD');

insert into registration ( clientNo, branchNo,staffNo ,dateJoined )

values ('AB61','AB1','AB01','1998/12/12'),

('AB62','AB2','AB02','1999/11/18'),
('AB63','AB3','AB03','1994/04/12'),
('AB64','AB4','AB04','1989/01/07'),
('AB65','AB5','AB05','1996/07/29'),
('AB66','AB6','AB06','2001/08/19'),
('AB67','AB7','AB07','1997/11/01'),
('AB68','AB8','AB08','1986/04/12'),
('AB69','AB9','AB09','2002/10/05'),
('AB70','AB10','AB010','2000/05/14');

Select distinct(city) from Branch order by city desc;
```

Reviewed by:

Muhammad Adil Mehmood (SP19-BCS-014)

Comments:

Code Working. Syed Huzaifa provided data for the PropertyForRent table.

Problems:

No problem at all

Rating: 1 – 10

10

1.3 HAMZA MUSHTAQ (SP19-BCS-007)

```
use dreamhome;

INSERT into branch (branchNo, street, city, postcode)
VALUES
('C011','I#38 BYPASS', 'ISB','8092'),
('C012', 'I#78 HASSAN ROAD', 'ABT', '1278'),
('C013', 'I#79 G-10/2', 'ISB', '3987'),
('C014','I#78 MANILA ROAD', 'ABT', '2576'),
('C015','I#85 CANTT', 'ABT', '9087'),
('C016','I#86 I-9/2', 'ISB', '1265'),
('C017','I#895 I-8/4', 'ISB', '3489'),
('C018','I#55 G-8/4', 'ISB', '9871'),
('C019','I#986 MANDI ROAD', 'HAR', '9087'),
('C020','I#12 F-8/2', 'ISB', '5431');

insert into staff (staffNo, fName, lName, position, sex, DOB, salary, branchNo)
values ('SA49', 'Alex', 'Howe', 'Assistant', 'F', '1988/08/23', 20000, 'C002'),
('SJ14', 'Daeis', 'Ford', 'Assistant', 'M','1987/11/9', 100000, 'C003'),
('SK37', 'Annabelis', 'Bleech', 'Supervisor', 'F','1986/12/8', 90000, 'C003'),
('SL5', 'Sushab', 'Brand', 'Receptionist', 'F', '1989/5/9', 120000, 'C003'),
('SS21', 'Johnny', 'White', 'Manager', 'M', '1992/2/12', 100000, 'C004'),
('SB41', 'Judie', 'Lee', 'Assistant', 'F', '1990/8/3', 50000, 'C002'),
('SM98', 'Ahmed', 'Shoaib', 'Assistant Manager', 'M', '1996/9/8', 70000, 'C005'),
('SL32', 'Meerukh', 'Khan', 'Customer Service', 'F', '1994/9/8', 60000, 'C010'),
('SE83', 'Hamza', 'Hassan', 'Receptionist', 'M', '1991/4/6', 40000, 'C009'),
('SX68', 'Hammas', 'Qazi', 'Security Guard', 'M', '1982/9/12', 10000, 'C007');

insert into client (clientNo, fName, lName, telNo, prefType, maxRent)
values ('1', 'Hamza', 'Khalid', '0341-3412312', 'Apartment', '18000'),
('2', 'Hamid', 'Muhstaq', '0341-3412312', 'Apartment', '18000'),
('3', 'Imdadullah', 'Ahmad', '0347-2346553', 'House', '24000'),
('4', 'Ameer', 'Mehmood', '0341-3123565', 'Apartment', '15000'),
('5', 'Zumeer', 'Rehman', '0320-3983493', 'House', '30000'),
('6', 'Humsa', 'Abid', '0312-9817818', 'Room', '12000'),
('7', 'Hafeez', 'Khan', '0300-9182713', 'Room', '14000'),
('8', 'Sher', 'Khan', '0344-3912399', 'House', '22000'),
('9', 'Ahmaz', 'Shah', '0340-1908761', 'Apartment', '20000'),
('10', 'Hamis', 'Kiyani', '0331-7096413', 'House', '24000');

insert into privateowner (ownerNo, fName, lName, address, telNO)
values('13456','Zeeshan','Abid','G-13', '0331-1006543'),
('19283','Shakeel','Abid', 'I#78 Supply', '0332-9123768'),
('23456','Adnan','Khan', 'I#79 I-10/2', '0330-9786523'),
```

('87362','Ahmed','Saleem','I#78 Mandia', '0336-1238789'),
('12098','Asfi','Khan','I#85 Supply', '0344-1237686'),
('90876','Shanawaz','Ali','I#86 Supply', '0324-2214598'),
('78635','Haneez','Tahir','I#895 Cantt', '0314-9887672'),
('17865','Ahmer','Hassan','I#55 Kalapul', '0304-9991231'),
('87268','Zagyam','Asim','I#986 Beer', '0334-3228123'),
('12876','Ibrar','Saqib','I#12 Cantt', '0314-9122234');

insert into propertyforrent (propertyNo, street, city, postcode, type, rooms, rent, ownerNo, staffNo, branchNo)
values ('A110','I#38 H-13', 'ISB','8092','Room','1','12000','13456','SA9','C001'),
('B110','I#78 Cantt', 'ABT','1278','Apartment','2','10000','19283','SG14','C002'),
('A111','I#85 I-9/3', 'ISB','3987','Aparment','3','14000','23456','SG37','C003'),
('C065','I#12 Gurdawara', 'ABT','2576','Room','1','8000','87362','SG5','C004'),
('D124','I#78 Kalapull', 'ISB','9087','Apartment','2','10000','12098','SL21','C005'),
('G116','I#55 Nawasher', 'ABT','1265','Apartment','3','15000','90876','SL41','C006'),
('A140','I#12 Supply', 'ABT','3489','Apartment','4','18000','78635','SP98','C007'),
('H180','I#86 PMA Road', 'ISB','1265','House','4','24000','17865','SK32','C008'),
('A230','I#38 F-8/3', 'ISB','9087','House','3','22000','87268','SB83','C009'),
('H210','I#86 Adda', 'ABT','5431','Apartment','2','14000','12876','SR68','C010');

insert into registration (clientNo, branchNo,staffNo ,dateJoined)
values ('1','C001','SG14','1999/12/24'),
('2','C002','GA9','1991/11/18'),
('3','C003','HG37','1994/04/12'),
('4','C004','IG5','1989/01/07'),
('5','C005','JL21','1995/07/29'),
('6','C006','KL41','2000/08/19'),
('7','C007','BP28','1996/11/01'),
('8','C008','DK32','1986/04/12'),
('9','C009','YB83','1990/10/05'),
('10','C010','LR68','1990/05/14');

insert into viewing(clientNo, propertyNo, viewDate, comment)
values('1','Y110','2000/05/14','GOOD'),
('2','H110','2001/11/21','GOOD'),
('3','U111','2001/04/04','GOOD'),
('4','K065','2000/01/01','GOOD'),
('5','S124','2004/06/19','AVERAGE'),
('6','C116','1999/08/02','SATISFACTORY'),
('7','I140','2005/07/09','GOOD'),
('8','L180','2000/02/26','AVERAGE'),
('9','S230','1997/10/12','GOOD'),
('10','L210','2003/12/24','GOOD');

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

1.4 MUHAMMAD ADIL MEHMOOD (SP19-BCS-014)

```
create database DreamHome
use DreamHome

create table Branch (branchNo varchar(20) NOT NULL Primary Key, street varchar(100) NOT NULL, city
varchar(50) NOT NULL,
postcode varchar(20) NOT NULL);
create table Staff (staffNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName
varchar(50) NOT NULL,
position varchar(50) NOT NULL, sex varchar(1) NOT NULL, DOB DateTime NOT NULL, salary DECIMAL
NOT NULL,
branchNo varchar(20) NOT NULL References Branch(branchNo));

create table Client (clientNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName
varchar(50) NOT NULL,
telNo varchar(20) NOT NULL, prefType varchar(50) NOT NULL, maxRent DECIMAL NOT NULL)

create table PrivateOwner (ownerNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL,
lName varchar(50) NOT NULL,
[address] varchar(50) NOT NULL, telNo varchar(20) NOT NULL)
create table PropertyForRent (propertyNo varchar(20) NOT NULL PRIMARY KEY, street varchar(100) NOT
NULL, city varchar(50) NOT NULL,
postcode varchar(20) NOT NULL, type varchar(10) NOT NULL, rooms int NOT NULL, rent DECIMAL NOT
NULL,
ownerNo varchar(20) References PrivateOwner(ownerNo), staffNo varchar(20) NOT NULL References
Staff(staffNo),
branchNo varchar(20) NOT NULL References Branch(branchNo));

create table Viewing (clientNo varchar(20) NOT NULL References Client(clientNo),
propertyNo varchar(20) NOT NULL References PropertyForRent(propertyNo), viewDate DateTime NOT NULL,
comment varchar(200) NOT NULL)

create table Registration(clientNo varchar(20) NOT NULL References Client(clientNo),
branchNo varchar(20) NOT NULL References Branch(branchNo),staffNo varchar(20) NOT NULL References
Staff(staffNo),dateJoined DateTime NOT NULL)
INSERT into Branch (branchNo, street, city, postcode)
VALUES
('AD1','3rd Street Satellite Town', 'SGD','40100'),
('AD2', '1st Block', 'FSD', '38000'),
('AD3', '4th Street Urdu bazar', 'SGD', '40100'),
('AD4','5th Block', 'FSD', '38000'),
('AD5','3rd Street Urdu bazar', 'SGD', '40100'),
('AD6','Sixth Road', 'RWP', '43600'),
('AD7','Saadaar', 'RWP', '43600'),
('AD8','Deput', 'RWP', '43600'),
('AD9','3rd street University Road', 'SGD', '40100'),
('AD10','2nd street Queens Chock', 'SGD', '40100');
```

```
insert into Staff (staffNo, fName, lName, position, sex, DOB, salary, branchNo)
VALUES ('AD01', 'Adil', 'Mehmood', 'Assistant', 'M', CAST(0x0000641000000000 AS DateTime), CAST(9000 AS
Decimal(18, 0)), 'A001'),
('AD02', 'Abdullah', 'Javed', 'Manager', 'M',CAST(0x0000531200000000 AS DateTime), CAST(18000 AS
Decimal(18,0)), 'A002'),
('AD03', 'Hamza', 'Mushtaq', 'Assistant', 'M',CAST(0x000056D400000000 AS DateTime), CAST(12000 AS
Decimal(18,0)), 'A003'),
('AD04', 'Huzaifa', 'Abid', 'Assistant', 'M', CAST(0x0000C85800000000 AS DateTime), CAST(24000 AS
Decimal(18,0)), 'A004'),
('AD05', 'Ayesha', 'Latif', 'Assistant', 'F', CAST(0x0000CFF200000000 AS DateTime), CAST(30000 AS
Decimal(18,0)), 'A005'),
('AD06', 'Komal', 'Mushtaq', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS
Decimal(18, 0)), 'A006'),
('AD07', 'Rafiya', 'Siddique', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS
Decimal(18, 0)), 'A007'),
('AD08', 'Alina', 'Mukhtiar', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS
Decimal(18, 0)), 'A008'),
('AD09', 'Kamran', 'Ali', 'Supervisor', 'M', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS
Decimal(18, 0)), 'A009'),
('AD010', 'Khurram', 'Shehzad', 'Supervisor', 'M', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS
Decimal(18, 0)), 'A0010');

insert into client (clientNo, fName, lName, telNo, prefType, maxRent)
values ('AD001', 'Muhammad', 'Hamza', '0341-3487431', 'Apartment', '160000'),
('AD002', 'Muhammad', 'Ali', '0341-3412312', 'Apartment', '180000'),
('AD003', 'Asim', 'Azhar', '0347-2346553', 'House', '24000'),
('AD004', 'Adil', 'Mehmood', '0341-3123565', 'Apartment', '5000'),
('AD005', 'Atif', 'Aslam', '0320-3983493', 'House', '3000'),
('AD006', 'Touqeef', 'Rehman', '0312-9817818', 'Room', '2000'),
('AD007', 'Haseeb', 'Khan', '0300-9182713', 'Room', '1400'),
('AD008', 'Sharjeel', 'Khan', '0344-3912399', 'House', '2000'),
('AD009', 'Ahmed', 'Shah', '0340-1908761', 'Apartment', '20000'),
('AD0010', 'Hamza', 'Javed', '0331-7096413', 'House', '2000');

insert into privateowner (ownerNo, fName, lName, address, telNO)
values('AD0001','Huzaifa','Abid','G-13', '0331-132326543'),
('AD0002','Hamza','Khalid', 'I#78 Supply', '0332-913268'),
('AD0003','Adeel','Waraich', 'I#79 I-10/2', '0330-978323223'),
('AD0004','Zeeshan','Akhtar','I#78 Mandia', '0336-248789'),
('AD0005','Asif','Niazi','I#85 Supply', '0344-12373466'),
('AD0006','Shan','Shahd','I#86 Supply', '0324-22145538'),
('AD0007','Hanzala','Maqsood','I#895 Cantt', '0314-7787672'),
('AD0008','Ahmed','Ali','I#55 Kalapul', '0304-5591231'),
('AD0009','Zain','Farooq','I#986 Beer', '0334-322448123'),
('AD00010','Ibrahim','Uziar','I#12 Cantt', '0314-91442234');

insert into propertyforrent ( propertyNo, street, city, postcode, type, rooms, rent, ownerNo, staffNo, branchNo)
values ('AD101','I#38 G-13', 'ISB','8092','Room','1','12000','13456','AD01','AD1'),
```

('AD102','I#78 Mandia', 'ABT','1278','Apartment','2','10000','19283','AD02','AD2'),
('AD103','I#85 Mirpur', 'ISB','3987','Aparment','3','14000','23456','AD03','AD3'),
('AD104','I#12 Cantt', 'ABT','2576','Room','1','8000','87362','AD04','AD4'),
('AD105','I#78 Mandia', 'ISB','9087','Apartment','2','10000','12098','AD05','AD5'),
('AD106','I#55 Kalapul', 'ABT','1265','Apartment','3','15000','90876','AD06','AD6'),
('AD107','I#12 Cantt', 'ABT','3489','Apartment','4','18000','78635','AD07','AD7'),
('AD108','I#86 Supply', 'ISB','1265','House','4','24000','17865','AD08','AD8'),
('AD109','I#38 G-13', 'ISB','9087','House','3','22000','87268','AD09','AD9'),
('AD1010','I#86 Supply', 'ABT','5431','Apartment','2','14000','AD10','SR68','AD10');

insert into registration (clientNo, branchNo,staffNo ,dateJoined)
values ('AD1101','AD1','AD01','1999/12/24'),
("AD1102','AD2','AD02','1991/11/18'),
("AD1103','AD3','AD03','1994/04/12'),
("AD1104','AD4','AD04','1989/01/07'),
("AD1105','AD5','AD05','1995/07/29'),
("AD1106','AD6','AD06','2000/08/19'),
("AD1107','AD7','AD07','1996/11/01'),
("AD1108','AD8','AD08','1986/04/12'),
("AD1109','AD9','AD09','1990/10/05'),
("AD11010','AD10','AD10','1990/05/14');

insert into viewing(clientNo, propertyNo, viewDate, comment)
values('AD001','A110','2000/05/14','GOOD'),
('AD002','B110','2001/11/21','GOOD'),
('AD003','A111','2001/04/04','GOOD'),
('AD004','C065','2000/01/01','GOOD'),
('AD005','D124','2004/06/19','GOOD'),
('AD006','G116','1999/08/02','GOOD'),
('AD007','A140','2005/07/09','GOOD'),
('AD008','H180','2000/02/26','GOOD'),
('AD009','A230','1997/10/12','GOOD'),
('AD0010','B210','2003/12/24','GOOD');

Select distinct(city) from Branch order by city desc;

Reviewed by:.

Adnan Khurshid

Comments:

Complete the task according to the requirements.

Problems:

no

Rating: 1 – 10

10

1.5 SAIF UR REHMAN (SP19-BCS-021)

```
create database DreamHome
use DreamHome

create table Branch (branchNo varchar(20) NOT NULL Primary Key, street varchar(100) NOT NULL, city
varchar(50) NOT NULL,
postcode varchar(20) NOT NULL);
create table Staff (staffNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName
varchar(50) NOT NULL,
position varchar(50) NOT NULL, sex varchar(1) NOT NULL, DOB DateTime NOT NULL, salary DECIMAL
NOT NULL,
branchNo varchar(20) NOT NULL References Branch(branchNo));

create table Client (clientNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName
varchar(50) NOT NULL,
telNo varchar(20) NOT NULL, prefType varchar(50) NOT NULL, maxRent DECIMAL NOT NULL)

create table PrivateOwner (ownerNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL,
lName varchar(50) NOT NULL,
[address] varchar(50) NOT NULL, telNo varchar(20) NOT NULL)
create table PropertyForRent (propertyNo varchar(20) NOT NULL PRIMARY KEY, street varchar(100) NOT
NULL, city varchar(50) NOT NULL,
postcode varchar(20) NOT NULL, type varchar(10) NOT NULL, rooms int NOT NULL, rent DECIMAL NOT
NULL,
ownerNo varchar(20) References PrivateOwner(ownerNo), staffNo varchar(20) NOT NULL References
Staff(staffNo),
branchNo varchar(20) NOT NULL References Branch(branchNo));

create table Viewing (clientNo varchar(20) NOT NULL References Client(clientNo),
propertyNo varchar(20) NOT NULL References PropertyForRent(propertyNo), viewDate DateTime NOT NULL,
comment varchar(200) NOT NULL)

create table Registration(clientNo varchar(20) NOT NULL References Client(clientNo),
branchNo varchar(20) NOT NULL References Branch(branchNo),staffNo varchar(20) NOT NULL References
Staff(staffNo),dateJoined DateTime NOT NULL)
INSERT into Branch (branchNo, street, city, postcode)
VALUES
('AD1','3rd Street Satellite Town', 'SGD','40100'),
('AD2', '1st Block', 'FSD', '38000'),
('AD3', '4th Street Urdu bazar', 'SGD', '40100'),
('AD4','5th Block', 'FSD', '38000'),
('AD5','3rd Street Urdu bazar', 'SGD', '40100'),
('AD6','Sixth Road', 'RWP', '43600'),
('AD7','Saadaar', 'RWP', '43600'),
('AD8','Deput', 'RWP', '43600'),
('AD9','3rd street University Road', 'SGD', '40100'),
('AD10','2nd street Queens Chock', 'SGD', '40100');


insert into Staff (staffNo, fName, lName, position, sex, DOB, salary, branchNo)
VALUES ('AD01', 'Adil', 'Mehmood', 'Assistant', 'M', CAST(0x0000641000000000 AS DateTime), CAST(9000 AS
Decimal(18, 0)), 'A001'),
```

('AD02', 'Abdullah', 'Javed', 'Manager', 'M',CAST(0x0000531200000000 AS DateTime), CAST(18000 AS Decimal(18,0)), 'A002'),
('AD03', 'Hamza', 'Mushtaq', 'Assistant', 'M',CAST(0x000056D400000000 AS DateTime), CAST(12000 AS Decimal(18,0)), 'A003'),
('AD04', 'Huzaifa', 'Abid', 'Assistant', 'M', CAST(0x0000C85800000000 AS DateTime), CAST(24000 AS Decimal(18,0)), 'A004'),
('AD05', 'Ayesha', 'Latif', 'Assistant', 'F', CAST(0x0000CFF200000000 AS DateTime), CAST(30000 AS Decimal(18,0)), 'A005'),
('AD06', 'Komal', 'Mushtaq', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A006'),
('AD07', 'Rafiya', 'Siddique', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A007'),
('AD08', 'Alina', 'Mukhtiar', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A008'),
('AD09', 'Kamran', 'Ali', 'Supervisor', 'M', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A009'),
('AD010', 'Khurram', 'Shehzad', 'Supervisor', 'M', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'A0010');

insert into client (clientNo, fName, lName, telNo, prefType, maxRent)
values ('AD001', 'Muhammad', 'Hamza', '0341-3487431', 'Apartment', '160000'),
('AD002', 'Muhammad', 'Ali', '0341-3412312', 'Apartment', '180000'),
('AD003', 'Asim', 'Azhar', '0347-2346553', 'House', '24000'),
('AD004', 'Adil', 'Mehmood', '0341-3123565', 'Apartment', '5000'),
('AD005', 'Atif', 'Aslam', '0320-3983493', 'House', '3000'),
('AD006', 'Touqeef', 'Rehman', '0312-9817818', 'Room', '2000'),
('AD007', 'Haseeb', 'Khan', '0300-9182713', 'Room', '1400'),
('AD008', 'Sharjeel', 'Khan', '0344-3912399', 'House', '2000'),
('AD009', 'Ahmed', 'Shah', '0340-1908761', 'Apartment', '20000'),
('AD0010', 'Hamza', 'Javed', '0331-7096413', 'House', '2000');

insert into privateowner (ownerNo, fName, lName, address, telNO)
values('AD0001','Huzaifa','Abid','G-13', '0331-132326543'),
('AD0002','Hamza','Khalid', 'I#78 Supply', '0332-913268'),
('AD0003','Adeel','Waraich', 'I#79 I-10/2', '0330-978323223'),
('AD0004','Zeeshan','Akhtar','I#78 Mandia', '0336-248789'),
('AD0005','Asif','Niazi','I#85 Supply', '0344-12373466'),
('AD0006','Shan','Shahd','I#86 Supply', '0324-22145538'),
('AD0007','Hanzala','Maqsood','I#895 Cantt', '0314-7787672'),
('AD0008','Ahmed','Ali','I#55 Kalapul', '0304-5591231'),
('AD0009','Zain','Farooq','I#986 Beer', '0334-322448123'),
('AD00010','Ibrahim','Uziar','I#12 Cantt', '0314-91442234');

insert into propertyforrent (propertyNo, street, city, postcode, type, rooms, rent, ownerNo, staffNo, branchNo)
values ('AD101','I#38 G-13', 'ISB','8092','Room','1','12000','13456','AD01','AD1'),
('AD102','I#78 Mandia', 'ABT','1278','Apartment','2','10000','19283','AD02','AD2'),
('AD103','I#85 Mirpur', 'ISB','3987','Aparment','3','14000','23456','AD03','AD3'),
('AD104','I#12 Cantt', 'ABT','2576','Room','1','8000','87362','AD04','AD4'),
('AD105','I#78 Mandia', 'ISB','9087','Apartment','2','10000','12098','AD05','AD5'),
('AD106','I#55 Kalapul', 'ABT','1265','Apartment','3','15000','90876','AD06','AD6'),
('AD107','I#12 Cantt', 'ABT','3489','Apartment','4','18000','78635','AD07','AD7'),
('AD108','I#86 Supply', 'ISB','1265','House','4','24000','17865','AD08','AD8'),
('AD109','I#38 G-13', 'ISB','9087','House','3','22000','87268','AD09','AD9'),
('AD1010','I#86 Supply', 'ABT','5431','Apartment','2','14000','AD10','SR68','AD10');

insert into registration (clientNo, branchNo,staffNo ,dateJoined)

```
values ('AD1101','AD1','AD01','1999/12/24'),
("AD1102','AD2','AD02','1991/11/18'),
("AD1103','AD3','AD03','1994/04/12'),
("AD1104','AD4','AD04','1989/01/07'),
("AD1105','AD5','AD05','1995/07/29'),
("AD1106','AD6','AD06','2000/08/19'),
("AD1107','AD7','AD07','1996/11/01'),
("AD1108','AD8','AD08','1986/04/12'),
("AD1109','AD9','AD09','1990/10/05'),
("AD11010','AD10','AD10','1990/05/14');

insert into viewing(clientNo, propertyNo, viewDate, comment)
values('AD001','A110','2000/05/14','GOOD'),
('AD002','B110','2001/11/21','GOOD'),
('AD003','A111','2001/04/04','GOOD'),
('AD004','C065','2000/01/01','GOOD'),
('AD005','D124','2004/06/19','GOOD'),
('AD006','G116','1999/08/02','GOOD'),
('AD007','A140','2005/07/09','GOOD'),
('AD008','H180','2000/02/26','GOOD'),
('AD009','A230','1997/10/12','GOOD'),
('AD0010','B210','2003/12/24','GOOD');

Select distinct(city) from Branch order by city desc;
```

Reviewed by:

Muhammad Adil Mehmood (SP19-BCS-014)

Comments:

Code Working. Syed Huzaifa provided data for the PropertyForRent table.

Problems:

No problem at all

Rating: 1 – 10

10

1.6 SYED HUZAIFA ABID (SP19-BCS-025)

```
use dreamhome;
INSERT into branch (branchNo, street, city, postcode)
VALUES
('C001','I#38 G-13', 'ISB','8092'),
('C002', 'I#78 Supply', 'ABT', '1278'),
('C003', 'I#79 I-10/2', 'ISB', '3987'),
('C004','I#78 Mandia', 'ABT', '2576'),
('C005','I#85 Mirpur', 'ABT', '9087'),
('C006','I#86 Supply', 'ISB', '1265'),
```

('C007','I#895 Cantt', 'ABT', '3489'),
('C008','I#55 Kalapul', 'ABT', '9871'),
('C009','I#986 Beer', 'HAR', '9087'),
('C010','I#12 Cantt', 'HAV', '5431');

insert into staff (staffNo, fName, lName, position, sex, DOB, salary, branchNo)
values (' SG5', 'Mary', 'Howe', 'Assistant', 'F', '1988/08/23', 20000, 'C002'),
(' SL21', 'David', 'Ford', 'Assistant', 'M','1987/11/9', 100000, 'C003'),
('SG37', 'Anna', 'Bleech', 'Supervisor', 'F','1986/12/8', 90000, 'C003'),
('SA9', 'Susa', 'Brand', 'Receptionist', 'F', '1989/5/9', 120000, 'C003'),
('SG14', 'Joh', 'White', 'Manager', 'M', '1992/2/12', 100000, 'C004'),
('SL41', 'Julie', 'Lee', 'Assistant', 'F', '1990/8/3', 50000, 'C002'),
(' SR68', 'Akbar', 'Shoaib', 'Assistant Manager', 'M', '1996/9/8', 70000, 'C005'),
('SK32', 'Mahrukh', 'Khan', 'Customer Service', 'F', '1994/9/8', 60000, 'C010'),
('SB83', 'Ali', 'Hassan', 'Receptionist', 'M', '1991/4/6', 40000, 'C009'),
(' SP98', 'Hamid', 'Qazi', 'Security Guard', 'M', '1982/9/12', 10000, 'C007');

insert into client (clientNo, fName, lName, telNo, prefType, maxRent)
values ('1', 'Hamza', 'Muhstaq', '0341-3487431', 'Apartment', '16000'),
('2', 'Hamza', 'Abid', '0341-3412312', 'Apartment', '18000'),
('3', 'Imad', 'Ahmad', '0347-2346553', 'House', '24000'),
('4', 'Adil', 'Mehmood', '0341-3123565', 'Apartment', '15000'),
('5', 'Zullkif', 'Rehman', '0320-3983493', 'House', '30000'),
('6', 'Huzaifa', 'Abid', '0312-9817818', 'Room', '12000'),
('7', 'Haseeb', 'Khan', '0300-9182713', 'Room', '14000'),
('8', 'Sharjeel', 'Khan', '0344-3912399', 'House', '22000'),
('9', 'Ahmed', 'Shah', '0340-1908761', 'Apartment', '20000'),
('10', 'Hamza', 'Javed', '0331-7096413', 'House', '24000');

insert into privateowner (ownerNo, fName, lName, address, telNO)
values('13456','Huzaifa','Abid','G-13', '0331-1006543'),
('19283','Hamza','Abid', 'I#78 Supply', '0332-9123768'),
('23456','Adeel','Khan', 'I#79 I-10/2', '0330-9786523'),
('87362','Zeeshan','Saleem','I#78 Mandia', '0336-1238789'),
('12098','Asif','Khan','I#85 Supply', '0344-1237686'),
('90876','Shan','Ali','I#86 Supply', '0324-2214598'),
('78635','Hanzala','Tahir','I#895 Cantt', '0314-9887672'),
('17865','Ahmed','Hassan','I#55 Kalapul', '0304-9991231'),
('87268','Zain','Asim','I#986 Beer', '0334-3228123'),
('12876','Ibrahim','Saqib','I#12 Cantt', '0314-9122234');

insert into propertyforrent (propertyNo, street, city, postcode, type, rooms, rent, ownerNo, staffNo, branchNo)
values ('A110','I#38 G-13', 'ISB','8092','Room','1','12000','13456','SA9','C001'),
('B110','I#78 Mandia', 'ABT','1278','Apartment','2','10000','19283','SG14','C002'),
('A111','I#85 Mirpur', 'ISB','3987','Aparment','3','14000','23456','SG37','C003'),
('C065','I#12 Cantt', 'ABT','2576','Room','1','8000','87362','SG5','C004'),
('D124','I#78 Mandia', 'ISB','9087','Apartment','2','10000','12098','SL21','C005'),
('G116','I#55 Kalapul', 'ABT','1265','Apartment','3','15000','90876','SL41','C006'),

('A140','I#12 Cantt', 'ABT','3489','Apartment','4','18000','78635','SP98','C007'),
('H180','I#86 Supply', 'ISB','1265','House','4','24000','17865','SK32','C008'),
('A230','I#38 G-13', 'ISB','9087','House','3','22000','87268','SB83','C009'),
('H210','I#86 Supply', 'ABT','5431','Apartment','2','14000','12876','SR68','C010');

insert into registration (clientNo, branchNo,staffNo ,dateJoined)
values ('1','C001','SG14','1999/12/24'),
('2','C002','SA9','1991/11/18'),
('3','C003','SG37','1994/04/12'),
('4','C004','SG5','1989/01/07'),
('5','C005','SL21','1995/07/29'),
('6','C006','SL41','2000/08/19'),
('7','C007','SP28','1996/11/01'),
('8','C008','SK32','1986/04/12'),
('9','C009','SB83','1990/10/05'),
('10','C010','SR68','1990/05/14');

insert into viewing(clientNo, propertyNo, viewDate, comment)
values('1','A110','2000/05/14','GOOD'),
('2','B110','2001/11/21','GOOD'),
('3','A111','2001/04/04','GOOD'),
('4','C065','2000/01/01','GOOD'),
('5','D124','2004/06/19','GOOD'),
('6','G116','1999/08/02','GOOD'),
('7','A140','2005/07/09','GOOD'),
('8','H180','2000/02/26','GOOD'),
('9','A230','1997/10/12','GOOD'),
('10','B210','2003/12/24','GOOD');

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

1.7 ZULKIFIL REHMAN (SP19-BCS-027)

use dreamhome;
INSERT into branch (branchNo, street, city, postcode)
VALUES
('C001','I#38 G-13', 'ISB','8092'),
('C002', 'I#78 Supply', 'ABT', '1278'),

('C003', 'I#79 I-10/2', 'ISB', '3987'),
('C004','I#78 Mandia', 'ABT', '2576'),
('C005','I#85 Mirpur', 'ABT', '9087'),
('C006','I#86 Supply', 'ISB', '1265'),
('C007','I#895 Cantt', 'ABT', '3489'),
('C008','I#55 Kalapul', 'ABT', '9871'),
('C009','I#986 Beer', 'HAR', '9087'),
('C010','I#12 Cantt', 'HAV', '5431');

insert into staff (staffNo, fName, lName, position, sex, DOB, salary, branchNo)
values (' SG5', 'Mary', 'Howe', 'Assistant', 'F', '1988/08/23', 20000, 'C002'),
(' SL21', 'David', 'Ford', 'Assistant', 'M','1987/11/9', 100000, 'C003'),
('SG37', 'Anna', 'Bleech', 'Supervisor', 'F','1986/12/8', 90000, 'C003'),
('SA9', 'Susa', 'Brand', 'Receptionist', 'F', '1989/5/9', 120000, 'C003'),
('SG14', 'Joh', 'White', 'Manager', 'M', '1992/2/12', 100000, 'C004'),
('SL41', 'Julie', 'Lee', 'Assistant', 'F', '1990/8/3', 50000, 'C002'),
(' SR68', 'Akbar', 'Shoaib', 'Assistant Manager', 'M', '1996/9/8', 70000, 'C005'),
('SK32', 'Mahrukh', 'Khan', 'Customer Service', 'F', '1994/9/8', 60000, 'C010'),
('SB83', 'Ali', 'Hassan', 'Receptionist', 'M', '1991/4/6', 40000, 'C009'),
(' SP98', 'Hamid', 'Qazi', 'Security Guard', 'M', '1982/9/12', 10000, 'C007');

insert into client (clientNo, fName, lName, telNo, prefType, maxRent)
values ('1', 'Hamza', 'Muhstaq', '0341-3487431', 'Apartment', '16000'),
('2', 'Hamza', 'Abid', '0341-3412312', 'Apartment', '18000'),
('3', 'Imad', 'Ahmad', '0347-2346553', 'House', '24000'),
('4', 'Adil', 'Mehmood', '0341-3123565', 'Apartment', '15000'),
('5', 'Zullkif', 'Rehman', '0320-3983493', 'House', '30000'),
('6', 'Huzaifa', 'Abid', '0312-9817818', 'Room', '12000'),
('7', 'Haseeb', 'Khan', '0300-9182713', 'Room', '14000'),
('8', 'Sharjeel', 'Khan', '0344-3912399', 'House', '22000'),
('9', 'Ahmed', 'Shah', '0340-1908761', 'Apartment', '20000'),
('10', 'Hamza', 'Javed', '0331-7096413', 'House', '24000');

insert into privateowner (ownerNo, fName, lName, address, telNO)
values('13456','Huzaifa','Abid','G-13', '0331-1006543'),
('19283','Hamza','Abid', 'I#78 Supply', '0332-9123768'),
('23456','Adeel','Khan', 'I#79 I-10/2', '0330-9786523'),
('87362','Zeeshan','Saleem','I#78 Mandia', '0336-1238789'),
('12098','Asif','Khan','I#85 Supply', '0344-1237686'),
('90876','Shan','Ali','I#86 Supply', '0324-2214598'),
('78635','Hanzala','Tahir','I#895 Cantt', '0314-9887672'),
('17865','Ahmed','Hassan','I#55 Kalapul', '0304-9991231'),
('87268','Zain','Asim','I#986 Beer', '0334-3228123'),
('12876','Ibrahim','Saqib','I#12 Cantt', '0314-9122234');

insert into propertyforrent (propertyNo, street, city, postcode, type, rooms, rent, ownerNo, staffNo, branchNo)
values ('A110','I#38 G-13', 'ISB','8092','Room','1','12000','13456','SA9','C001'),
('B110','I#78 Mandia', 'ABT','1278','Apartment','2','10000','19283','SG14','C002'),
('A111','I#85 Mirpur', 'ISB','3987','Aparment','3','14000','23456','SG37','C003'),
('C065','I#12 Cantt', 'ABT','2576','Room','1','8000','87362','SG5','C004'),
('D124','I#78 Mandia', 'ISB','9087','Apartment','2','10000','12098','SL21','C005'),
('G116','I#55 Kalapul', 'ABT','1265','Apartment','3','15000','90876','SL41','C006'),
('A140','I#12 Cantt', 'ABT','3489','Apartment','4','18000','78635','SP98','C007'),
('H180','I#86 Supply', 'ISB','1265','House','4','24000','17865','SK32','C008'),
('A230','I#38 G-13', 'ISB','9087','House','3','22000','87268','SB83','C009'),

('H210','I#86 Supply', 'ABT','5431','Apartment','2','14000','12876','SR68','C010');

insert into registration (clientNo, branchNo,staffNo ,dateJoined)
values ('1','C001','SG14','1999/12/24'),
('2','C002','SA9','1991/11/18'),
('3','C003','SG37','1994/04/12'),
('4','C004','SG5','1989/01/07'),
('5','C005','SL21','1995/07/29'),
('6','C006','SL41','2000/08/19'),
('7','C007','SP28','1996/11/01'),
('8','C008','SK32','1986/04/12'),
('9','C009','SB83','1990/10/05'),
('10','C010','SR68','1990/05/14');

insert into viewing(clientNo, propertyNo, viewDate, comment)
values('1','A110','2000/05/14','GOOD'),
('2','B110','2001/11/21','GOOD'),
('3','A111','2001/04/04','GOOD'),
('4','C065','2000/01/01','GOOD'),
('5','D124','2004/06/19','GOOD'),
('6','G116','1999/08/02','GOOD'),
('7','A140','2005/07/09','GOOD'),
('8','H180','2000/02/26','GOOD'),
('9','A230','1997/10/12','GOOD'),
('10','B210','2003/12/24','GOOD');

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

1.8 ADNAN KHURSHID (SP19-BCS-029)

create database DreamHome
use DreamHome

create table Branch (branchNo varchar(20) NOT NULL Primary Key, street varchar(100) NOT NULL, city varchar(50) NOT NULL,
postcode varchar(20) NOT NULL);
create table Staff (staffNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName varchar(50) NOT NULL,
position varchar(50) NOT NULL, sex varchar(1) NOT NULL, DOB DateTime NOT NULL, salary DECIMAL NOT NULL,
branchNo varchar(20) NOT NULL References Branch(branchNo));

```
create table Client (clientNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName varchar(50) NOT NULL,
telNo varchar(20) NOT NULL, prefType varchar(50) NOT NULL, maxRent DECIMAL NOT NULL)

create table PrivateOwner (ownerNo varchar(20) NOT NULL PRIMARY KEY, fName varchar(50) NOT NULL, lName varchar(50) NOT NULL,
[address] varchar(50) NOT NULL, telNo varchar(20) NOT NULL)

create table PropertyForRent (propertyNo varchar(20) NOT NULL PRIMARY KEY, street varchar(100) NOT NULL, city varchar(50) NOT NULL,
postcode varchar(20) NOT NULL, type varchar(10) NOT NULL, rooms int NOT NULL, rent DECIMAL NOT NULL,
ownerNo varchar(20) References PrivateOwner(ownerNo), staffNo varchar(20) NOT NULL References Staff(staffNo),
branchNo varchar(20) NOT NULL References Branch(branchNo));

create table Viewing (clientNo varchar(20) NOT NULL References Client(clientNo),
propertyNo varchar(20) NOT NULL References PropertyForRent(propertyNo), viewDate DateTime NOT NULL,
comment varchar(200) NOT NULL);

create table Registration(clientNo varchar(20) NOT NULL References Client(clientNo),
branchNo varchar(20) NOT NULL References Branch(branchNo),staffNo varchar(20) NOT NULL References Staff(staffNo),dateJoined DateTime NOT NULL)

INSERT into Branch (branchNo, street, city, postcode)
VALUES
('C1','3rd Street Satellite Town', 'SGD','40100'),
('C2', '1st Block', 'FSD', '38000'),
('C3', '4th Street Urdu bazar', 'SGD', '40100'),
('C4','5th Block', 'FSD', '38000'),
('C5','3rd Street Urdu bazar', 'SGD', '40100'),
('C6','Sixth Road', 'RWP', '43600'),
('C7','Saadaar', 'RWP', '43600'),
('C8','Deput', 'RWP', '43600'),
('C9','3rd street University Road', 'SGD', '40100'),
('C10','2nd street Queens Chock', 'SGD', '40100');

insert into Staff (staffNo, fName, lName, position, sex, DOB, salary, branchNo)
VALUES ('CD01', 'Adil', 'Mehmood', 'Assistant', 'M', CAST(0x0000641000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'C1'),
('CD02', 'Abdullah', 'Javed', 'Manager', 'M',CAST(0x0000531200000000 AS DateTime), CAST(18000 AS Decimal(18,0)), 'C2'),
('CD03', 'Hamza', 'Mushtaq', 'Assistant', 'M',CAST(0x000056D400000000 AS DateTime), CAST(12000 AS Decimal(18,0)), 'C3'),
('CD04', 'Huzaifa', 'Abid', 'Assistant', 'M', CAST(0x0000C85800000000 AS DateTime), CAST(24000 AS Decimal(18,0)), 'C4'),
('CD05', 'Ayesha', 'Latif', 'Assistant', 'F', CAST(0x0000CFF200000000 AS DateTime), CAST(30000 AS Decimal(18,0)), 'C5'),
```

('CD06', 'Komal', 'Mushtaq', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'C6'),
('CD07', 'Rafiya', 'Siddique', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'C7'),
('CD08', 'Alina', 'Mukhtiar', 'Assistant', 'F', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'C8'),
('CD09', 'Kamran', 'Ali', 'Supervisor', 'M', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'C9'),
('CD010', 'Khurram', 'Shehzad', 'Supervisor', 'M', CAST(0x00005D6000000000 AS DateTime), CAST(9000 AS Decimal(18, 0)), 'C10');

insert into client (clientNo, fName, lName, telNo, prefType, maxRent)
values ('CD001', 'Muhammad', 'Hamza', '0341-3487431', 'Apartment', '160000'),
('CD002', 'Muhammad', 'Ali', '0341-3412312', 'Apartment', '180000'),
('CD003', 'Asim', 'Azhar', '0347-2346553', 'House', '24000'),
('CD004', 'Adil', 'Mehmood', '0341-3123565', 'Apartment', '5000'),
('CD005', 'Atif', 'Aslam', '0320-3983493', 'House', '3000'),
('CD006', 'Touqeef', 'Rehman', '0312-9817818', 'Room', '2000'),
('CD007', 'Haseeb', 'Khan', '0300-9182713', 'Room', '1400'),
('CD008', 'Sharjeel', 'Khan', '0344-3912399', 'House', '2000'),
('CD009', 'Ahmed', 'Shah', '0340-1908761', 'Apartment', '20000'),
('CD0010', 'Hamza', 'Javed', '0331-7096413', 'House', '2000');

insert into privateowner (ownerNo, fName, lName, address, telNO)
values('CD0001','Huzaifa','Abid','G-13', '0331-132326543'),
('CD0002','Hamza','Khalid', 'I#78 Supply', '0332-913268'),
('CD0003','Adeel','Waraich', 'I#79 I-10/2', '0330-978323223'),
('CD0004','Zeeshan','Akhtar','I#78 Mandia', '0336-248789'),
('CD0005','Asif','Niazi','I#85 Supply', '0344-12373466'),
('CD0006','Shan','Shahd','I#86 Supply', '0324-22145538'),
('CD0007','Hanzala','Maqsood','I#895 Cantt', '0314-7787672'),
('CD0008','Ahmed','Ali','I#55 Kalapul', '0304-5591231'),
('CD0009','Zain','Farooq','I#986 Beer', '0334-322448123'),
('CD00010','Ibrahim','Uziar','I#12 Cantt', '0314-91442234');

insert into propertyforrent (propertyNo, street, city, postcode, type, rooms, rent, ownerNo, staffNo, branchNo)

values ('CD101','I#38 G-13', 'ISB','8092','Room','1','12000','CD0001','CD01','C1'),
('CD102','I#78 Mandia', 'ABT','1278','Apartment','2','10000','CD0002','CD02','C2'),
('CD103','I#85 Mirpur', 'ISB','3987','Aparment','3','14000','CD0003','CD03','C3'),
('CD104','I#12 Cantt', 'ABT','2576','Room','1','8000','CD0004','CD04','C4'),
('CD105','I#78 Mandia', 'ISB','9087','Apartment','2','10000','CD0005','CD05','C5'),
('CD106','I#55 Kalapul', 'ABT','1265','Apartment','3','15000','CD0006','CD06','C6'),
('CD107','I#12 Cantt', 'ABT','3489','Apartment','4','18000','CD0007','CD07','C7'),
('CD108','I#86 Supply', 'ISB','1265','House','4','24000','CD0008','CD08','C8'),
('CD109','I#38 G-13', 'ISB','9087','House','3','22000','CD0009','CD09','C9'),
('CD1010','I#86 Supply', 'ABT','5431','Apartment','2','334010','CD00010','CD010','C10');

```
insert into registration ( clientNo, branchNo,staffNo ,dateJoined )
values ('CD001','C1','CD01','1999/12/24'),
('CD002','C2','CD02','1991/11/18'),
('CD003','C3','CD03','1994/04/12'),
('CD004','C4','CD04','1989/01/07'),
('CD005','C5','CD05','1995/07/29'),
('CD006','C6','CD06','2000/08/19'),
('CD007','C7','CD07','1996/11/01'),
('CD008','C8','CD08','1986/04/12'),
('CD009','C9','CD09','1990/10/05'),
('CD0010','C10','CD010','1990/05/14');

insert into viewing(clientNo, propertyNo, viewDate, comment)
values('CD001','CD101','2000/05/14','GOOD'),
('CD002','CD102','2001/11/21','GOOD'),
('CD003','CD103','2001/04/04','GOOD'),
('CD004','CD104','2000/01/01','GOOD'),
('CD005','CD105','2004/06/19','GOOD'),
('CD006','CD106','1999/08/02','GOOD'),
('CD007','CD107','2005/07/09','GOOD'),
('CD008','CD108','2000/02/26','GOOD'),
('CD009','CD109','1997/10/12','GOOD'),
('CD0010','CD1010','2003/12/24','GOOD');
```

Reviewed by:

Saif Ur Rehman

Comments:

Nice work

Problems:

No

Rating: 1 – 10

10

1.9 AYESHA LATIF (SP19-BCS-030)

Use dream home

Solution:

```
insert into staff (staffNo,fName,lName,position,sex,DOB,salary,branchNo
```

```
Values(' Sh4' 'saba','Howe' 'Assistant','F','1999/08/23',30000,'f002'),
('Sk21','julie', Ford','Assistant' 'M','1985/11/9',50000,'f003'),
('Sh37','Anna', 'Bleech', 'Supervisor','F','1987/12/8',80000,'f003'),
('Sh89','Sana','Brand' 'Receptionist','F','2000/5/9',100000,'f003'),
('Sk14', 'Jon', 'White', 'Manager', 'M', '1993/2/12', 300000, 'f004'),
('Sk41','Julie','Lee','Assistant', 'F','1988/3/12' 50000 'f002'),
('Sl68','Arham','Shoaib', 'Assistant Manager','M' '1996/9/8',70000,'f005'),
('SK92','Mushk','Khan','Customer Service','F','1994/9/8',60000,'f010'),
('Sh83', 'Ali', 'Hassan', 'Receptionist', 'M', '1991/4/6', 40000, 'f009'),
('So88', 'Hira', 'Qazi', 'Security Guard''M','1982/9/12',10000,'f007');
insert into client (clientNo, fName, lName, telNo, prefType, maxRent)
values ('11', 'kinza', 'Muhstaq','0341-3487431','house','16200'),
('12', 'Hina','saad', '0341-3443312','Apartment','12000'),
('13', 'Arham', 'latif', '0347-5646553', 'House','28000'),
('14', 'Ali', '', '0341-3123556', 'Apartment','1900'),
('15', 'Zoya', 'nawaz', '0324-3983493','house','20000'),
('16', 'Hira', 'mehmood', '0312-9854818', 'Room','14000'),
('17', 'Haseeb', 'muhshtaq', '0300-9452713', 'house','15000'),
('18', 'Sharjeel', 'Khan', '0344-3954399', 'House', '27000'),
('19', 'Ahmed', 'Shah', '0340-1905661', 'Apartment', '25000'),
('20', 'komal', 'Javed', '0331-7056413', 'House', '26000');

insert into privateowner (ownerNo, fName, lName, address, telNO)
values ('13346','ayesha','latif','f-12', '0331-1436543'),
('20283','Hafsa','Abid', 'I#78 cantt', '0332-91234568'),
```

('25456','Adil','Khan', 'I#79 cantt', '0330-9756565'),

('56362','Zanib','saqib','k#78 Mughal pura', '0336-12789'),

('11298','Asif','Kamal', 'k#30 h-1', '0344-1237686'),

('56876','Sara','Ali','L-20 maddar', '0324-2214598'),

('43635','Hina','mujahid','k#895 Cantt', '0314-98887672'),

('15665','Ahmed','Hassan','k#55 Kalapul', '0304-9991231'),

('85468','zoya','abid','k#986 Beer', '0334-3228123'),

('17876','ayesha','Saqib','k#12 Cantt', '0314-9122234')

insert into propertyforrent (propertyNo, street, city, postcode, type, rooms, rent, ownerNo, staffNo, branchNo)

values ('A1230','h#38 G-13', 'LHR','8092','Room','1','12000','13456','SA9','G001'),

('c110','h#78 Mandia', 'ABT','1278','Apartment','4','10000','19283','SG14','G002'),

('c411','h#85 ', 'ISB','3987','Aparment','3','14000','23456','SG37','G003'),

('f4365','h#12 Cantt', 'KAR','2576','Room','8','8000','87362','SGF5','G004'),

('Df44','k#78 Mandia', 'ABT','9087','Apartment','2','1000','12098','SLD21','G005'),

('f516','k#55 Kalapul', 'LHR','1265','Apartment','3','1500','90876','SLS41','G006'),

('f430','f#12 Cantt', 'SKP','3489','Apartment','4','1800','78635','SP9S8','G007'),

('H30','k#86 khan pur', 'SKP','1265','House','4','24000','17865','SKW32','C008'),

('u730','If#38 G-12', 'LHR','9087','House','3','22000','87268','SB8W3','H009'),

('d540','k#86 cantt', 'LHR','5431','Apartment','2','14000','12Q876','SR6W8','J010');

'insert into viewing(clientNo, propertyNo, viewDate, comment)

values('11','F110','2002/03/16','Good')

('12','LB00','2010/11/21','Good'),

('13','KG00','2003/04/05','Good'),

('14','HG04','2004/01/03','Good'),

('15','D012','2006/05/19','EXCELLENT'),

('16','GSW43','1999/03/04','V.Good'),

('17','Q2340','2001/02/04','Good'),

('18','J280','2007/02/23','Good'),

('19','C3430','1965/11/12','V.Good'),

('20','K710','2003/12/24','Good');

insert into registration (clientNo, branchNo,staffNo ,dateJoined)

values ('11','f002','Sh4','1998/11/20'),

('12','f003','Sk21','1992/10/12'),

('13','f003','Sh37','1989/04/15'),

('14','f003','Sh89','1991/11/17'),

('15','f004','Sk41','1986/10/29'),

('16','f002','sl68','2005/09/29'),

('17','f005','SK92','1995/10/05'),

('18','f010','Sh83','1987/03/22'),

('19','f007','So88','1990/10/05'),

('20','f006','so34','1990/05/14');

Reviewed by:

Adnan Khurshid

Comments:

Code Working:Adil Mehmood Provided The Data for the for Viewing.

Problems:

No problem at all

Rating: 1 – 10

10

2 LAB 7

2.1 Common Solution

Print the list of postcode without any repetition
Solution:
Select distinct(postcode) from Branch;

Print all fName from Staff without repetition
Solution:
SELECT distinct(fName) FROM Staff;

List all staff with renaming all its columns in results
Solution:
Select staffNo As MyStaffNo, fName As MyFirstName, lName As MyLastName, position As MyPosition, DOB As MYDOB, salary As MySalary, branchNo As MyBranchNO from Staff;

List all clients with re-naming all its columns to synonyms.
Solution:
Select clientNo As clientId, fName As firstName, lName As lastName, telNo As contactNo, prefType As priorityType, maxRent As totalRent from Client;

List all staff with a salary greater than 10,000.
Solution:
SELECT * FROM Staff WHERE salary > 10000;

List all managers and supervisors.
Solution:
SELECT * FROM Staff WHERE position = 'manager' OR position = 'supervisor';

2.2 ABDULLAH JAVED (SP19-BCS-002)

select distinct(postcode) from branch;
select distinct(fName) from staff;
select staffNo as ID,fName as FirstName, lName as LastName, position as Position, sex as Gender, DOB as DateofBirth, salary as Salary, branchNO as BranchNumber from staff;
select clientNo as ClientNumber, fName as FirstName, lName as LastName, telNo as TelliPhone, prefType as Preference, maxRent as MaximumRent from client;
select * from staff where salary > 13000;
select * from staff where position = 'DIRECTOR' or position = 'MANAGER';

Reviewed by:

Muhammad Adil Mehmood (SP19-BCS-014)

Comments:

Working

Problems:

No problem at all

Rating: 1 – 10

10

2.3 HAMZA MUSHTAQ (SP19-BCS-007)

```
select distinct(postcode) from branch;
select distinct(fName) from staff;
select staffNo as ID,fName as FirstName, lName as LastName, position as Position, sex as Gender, DOB as DateofBirth, salary as Salary, branchNO as BranchNumber from staff;

select clientNo as ClientNumber, fName as FirstName, lName as LastName, telNo as TelliPhone, prefType as Preference, maxRent as MaximumRent from client;

select * from staff where salary > 7630;
select * from staff where position = 'manager' or position = 'manager';
```

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

2.4 MUHAMMAD ADIL MEHMOOD (SP19-BCS-014)

Print the list of postcode without any repetition

Solution:

```
Select distinct(postcode) from Branch;
```

Print all fName from Staff without repetition

Solution:

```
SELECT distinct(fName) FROM Staff;
```

List all staff with renaming all its columns in results

Solution:

```
Select staffNo As MyStaffNo, fName As MyFirstName, lName As MyLastName, position As MyPosition, DOB As MYDOB, salary As MySalary, branchNo As MyBranchNO  from Staff;
```

List all clients with re-naming all its columns to synonyms.

Solution:
Select clientNo As clientId, fName As firstName, lName As lastName, telNo As contactNo, prefType As priorityType, maxRent As totalRent from Client;

List all staff with a salary greater than 10,000.
Solution:
SELECT * FROM Staff WHERE salary > 10000;

List all managers and supervisors.
Solution:
SELECT * FROM Staff WHERE position = 'manager' OR position = 'supervisor';

Reviewed by:.

Syed Huzaifa Abid

Comments:

Complete the task according to the requirements.

Problems:

no

Rating: 1 – 10

10

2.5 SAIF UR REHMAN (SP19-BCS-021)

Print the list of postcode without any repetition
Solution:
Select distinct(postcode) from Branch;

Print all fName from Staff without repetition
Solution:
SELECT distinct(fName) FROM Staff;

List all staff with renaming all its columns in results
Solution:
Select staffNo As MyStaffNo, fName As MyFirstName, lName As MyLastName, position As MyPosition, DOB As MYDOB, salary As MySalary, branchNo As MyBranchNO from Staff;

List all clients with re-naming all its columns to synonyms.
Solution:
Select clientNo As clientId, fName As firstName, lName As lastName, telNo As contactNo, prefType As priorityType, maxRent As totalRent from Client;

List all staff with a salary greater than 10,000.
Solution:

SELECT * FROM Staff WHERE salary > 10000;

List all managers and supervisors.
Solution:
SELECT * FROM Staff WHERE position = 'manager' OR position = 'supervisor';

Reviewed by:
Hamza Mushtaq
Comments:
Working
Problems:
No problem at all
Rating: 1 – 10
10

2.6 SYED HUZAIFA ABID (SP19-BCS-025)

select distinct(postcode) from branch;

select distinct(fName) from staff;

select staffNo as ID,fName as FirstName, lName as LastName, position as Position, sex as Gender, DOB as DateofBirth, salary as Salary, branchNO as BranchNumber from staff;

select clientNo as ClientNumber, fName as FirstName, lName as LastName, telNo as TelliPhone, prefType as Preference, maxRent as MaximumRent from client;

select * from staff where salary > 20000;

select * from staff where position = 'manager' or position = 'supervisor';

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

2.7 ZULKIFIL REHMAN (SP19-BCS-027)

select distinct(postcode) from branch;

select distinct(fName) from staff;

select staffNo as ID,fName as FirstName, lName as LastName, position as Position, sex as Gender, DOB as DateofBirth, salary as Salary, branchNO as BranchNumber from staff;

select clientNo as ClientNumber, fName as FirstName, lName as LastName, telNo as TelliPhone, prefType as Preference, maxRent as MaximumRent from client;

select * from staff where salary > 20000;

select * from staff where position = 'manager' or position = 'supervisor';

Reviewed by:.

Saif Ur Rehman

Comments:

Great job

Problems

No:

Rating: 1 – 10

10

2.8 ADNAN KHURSHID (SP19-BCS-029)

Print the list of postcode without any repetition
Solution:
Select distinct(postcode) from Branch;

Print all fName from Staff without repetition
Solution:
SELECT distinct(fName) FROM Staff;

List all staff with renaming all its columns in results
Solution:
Select staffNo As MyStaffNo, fName As MyFirstName, lName As MyLastName, position As MyPosition, DOB As MYDOB, salary As MySalary, branchNo As MyBranchNO from Staff;

List all clients with re-naming all its columns to synonyms.
Solution:
Select clientNo As clientId, fName As firstName, lName As lastName, telNo As contactNo, prefType As priorityType, maxRent As totalRent from Client;

List all staff with a salary greater than 10,000.

Solution:
SELECT * FROM Staff WHERE salary > 10000;

List all managers and supervisors.
Solution:
SELECT * FROM Staff WHERE position = 'manager' OR position = 'supervisor';

Reviewed by:.

Saif Ur Rehman

Comments:

Great job

Problems

No:

Rating: 1 – 10

10

2.9 AYESHA LATIF (SP19-BCS-030)

1.Print the list of postcode without any repetition

Solution:

Select distinct(postcod) from Branch;

2.Print all fName from Staff without repetition

Solution:

SELECT distinct(fName) FROM Staff;

3.List all staff with renaming all its columns in results

Solution:

Select staffNo As StaffNo, fName As FirstName, lName As LastName, position As Position, sex as Gender, salary As income, branchNo As BranchNO from Staff;

4.List all clients with re-naming all its columns to synonyms

Solution:

Select clientNo As clientId, fName As MYfirstName, lName As MYlastName, telNo As phonenumber, prefType As precedenceType, maxRent As MYtotalRent from Client;

5.List all staff with a salary greater than 10,000

Solution:

SELECT salary FROM Staff WHERE salary >10000;

6.List all managers and supervisors

Solution:

SELECT position FROM Staff WHERE position IN ('Manager', 'Supervisor');

Reviewed by:

Muhammad Adil Mehmood

Comments:

Working

Problems:

No problem at all

Rating: 1 – 10

10

3 LAB 8

3.1 Common Solution

Perform all the examples in this lab.
Solution:
SELECT staffNo, fName, lName, salary FROM Staff ORDER BY salary DESC;
SELECT propertyNo, type, rooms, rent FROM PropertyForRent ORDER BY type;
SELECT propertyNo, type, rooms, rent FROM PropertyForRent ORDER BY type, rent DESC;
SELECT COUNT(DISTINCT propertyNo) AS myCount FROM Viewing WHERE viewDate BETWEEN '1-May-04' AND '31-May-04';
SELECT COUNT(staffNo) AS myCount, SUM(salary) AS mySum FROM Staff WHERE position = 'Manager';
SELECT MIN(salary) AS myMin, MAX(salary) AS myMax, AVG(salary) AS myAvg FROM Staff;
SELECT staffNo, COUNT(salary) FROM Staff; --shwoing error that no aggregate or group clause
SELECT staffNo, fName, lName, position, salary FROM Staff WHERE salary > SOME (SELECT salary FROM Staff WHERE branchNo = 'B003');
SELECT staffNo, fName, lName, position, salary FROM Staff WHERE salary > ALL (SELECT salary FROM Staff WHERE branchNo = 'B003');
For DreamHome case study write at least 3 examples of each category for sorting, grouping and aggregate operations. Share your exercises as advised in the lab.
Sorting clauses
Solution:
SELECT staffNo, fName, lName, position FROM Staff ORDER BY fName ASC;
SELECT staffNo, fName, position, salary FROM Staff ORDER BY salary DESC;
SELECT fName, salary FROM Staff ORDER BY lName DESC;

Grouping clauses
Solution:
SELECT staffNo, fName, sex, salary FROM Staff WHERE position = 'Assistant' AND salary < 10000;
SELECT fName, position FROM Staff WHERE sex = 'M' AND position = 'Manager';
SELECT fName, lName, position FROM Staff WHERE (SELECT AVG(salary) FROM Staff) < salary;
Aggregateclauses
Solution:
SELECT COUNT(DISTINCT(propertyNo)) AS myCount FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';
SELECT clientNo, propertyNo AS ClientID, PropertyNo FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';
SELECT clientNo, comment FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';

3.2 Abdullah Javed (SP19-BCS-002)

SELECT staffNo, fName, lName, salary FROM staff ORDER BY Staffno DESC;
SELECT propertyNo, type, rooms, rent FROM propertyforrent ORDER BY rooms;
SELECT propertyNo, type, rooms, rent FROM propertyforrent ORDER BY rooms, type;
SELECT staffNo, COUNT(salary) FROM staffname;
SELECT COUNT(*) AS myCount FROM propertyforrent WHERE rent <=12000;
SELECT COUNT(DISTINCT propertyNo) AS myCount FROM Viewing WHERE viewDate BETWEEN '1998-12-16' AND '2004-12-23';
SELECT COUNT(staffNo) AS myCount, SUM(salary) AS mySum FROM Staff WHERE position = ’director’;
SELECT MIN(salary) AS myMin, MAX(salary) AS myMax, AVG(salary) AS myAvg FROM staff;
SELECT staffNo, COUNT(salary) FROM staff;
SELECT staffNo, fName, lName, position, salary FROM staff WHERE (SELECT AVG(salary) FROM staff) < salary;

```
SELECT staffNo, fName, lName, position, salary FROM staff WHERE salary > SOME (SELECT salary FROM
staff WHERE branchNo = 'AB02');
SELECT staffNo, fName, lName, position, salary FROM staff WHERE salary > ALL (SELECT salary FROM staff
WHERE branchNo = 'AB01');

-- Sorting
SELECT staffNo, fName, lName, salary FROM staff ORDER BY salary ASC;
SELECT salary FROM staff ORDER BY salary DESC;
SELECT salary FROM staff ORDER BY salary ASC;

-- Grouping
SELECT staffNo, fName,lName, sex, salary FROM Staff WHERE position = 'Receptionist' AND salary < 10000;
SELECT fName,lName,branchNo FROM Staff WHERE sex = 'F' AND position = 'Manager';
SELECT fName, lName,salary, position FROM Staff WHERE (SELECT AVG(salary) FROM Staff) < salary;

-- Aggregate
SELECT COUNT(DISTINCT(propertyNo)) AS myCount FROM Viewing WHERE viewDate BETWEEN '2000-
01-012' AND '2005-05-20';
SELECT COUNT(salary) AS myCount FROM staff WHERE salary BETWEEN '12000' AND '80000';
SELECT clientNo, propertyNo AS ClientID, PropertyNo FROM Viewing WHERE viewDate BETWEEN '2000-02-
16' AND '2005-12-16';
```

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

3.3 Hamza Mushtaq (SP19-BCS-007)

```
-- Few examples for better understanding the concepts of sorting, grouping and aggregating.

SELECT staffNo, fName, lName, salary FROM staff ORDER BY salary DESC;
SELECT propertyNo, type, rooms, rent FROM propertyforrent ORDER BY type;
SELECT propertyNo, type, rooms, rent FROM propertyforrent ORDER BY type, rent DESC;
SELECT staffNo, COUNT(salary) FROM staff;
SELECT COUNT(*) AS myCount FROM propertyforrent WHERE rent <=55000;
SELECT COUNT(DISTINCT propertyNo) AS myCount FROM Viewing WHERE viewDate BETWEEN '2001-03-
03' AND '2012-02-02';
SELECT COUNT(staffNo) AS myCount, SUM(salary) AS mySum FROM Staff WHERE position = ’Manager’;
SELECT MIN(salary) AS myMin, MAX(salary) AS myMax, AVG(salary) AS myAvg FROM staff;
SELECT staffNo, COUNT(salary) FROM staff;
SELECT staffNo, fName, lName, position, salary FROM staff WHERE (SELECT AVG(salary) FROM staff) >
salary;
SELECT staffNo, fName, lName, position, salary FROM staff WHERE salary > SOME (SELECT salary FROM
staff WHERE branchNo = 'C003');
SELECT staffNo, fName, lName, position, salary FROM staff WHERE salary > ALL (SELECT salary FROM staff
WHERE branchNo = 'C003');
```

3.3.1.1 -- Aggregate

SELECT COUNT(DISTINCT(propertyNo)) AS myCount FROM Viewing WHERE viewDate BETWEEN '2003-05-02' AND '2004-03-19';
SELECT COUNT(salary) AS myCount FROM staff WHERE salary BETWEEN '12000' AND '55000';
SELECT clientNo, propertyNo AS ClientID, PropertyNo FROM Viewing WHERE viewDate BETWEEN '1997-04-04' AND '2004-06-19';

3.3.1.2 -- Grouping

SELECT staffNo, fName,lName, sex, salary FROM Staff WHERE position = 'Receptionist' AND salary < 32000;
SELECT fName,lName,branchNo FROM Staff WHERE sex = 'M' AND position = 'Manager';
SELECT fName, lName,salary, position FROM Staff WHERE (SELECT AVG(salary) FROM Staff) < salary;

3.3.1.3 -- Sorting

SELECT staffNo, fName, lName, salary FROM staff ORDER BY salary ASC;
SELECT salary FROM staff ORDER BY salary DESC;
SELECT salary FROM staff ORDER BY salary ASC;

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

3.4 Muhammad Adil Mehmood (SP19-BCS-014)

Perform all the examples in this lab.

Solution:

SELECT staffNo, fName, lName, salary FROM Staff ORDER BY salary DESC;
SELECT propertyNo, type, rooms, rent FROM PropertyForRent ORDER BY type;
SELECT propertyNo, type, rooms, rent FROM PropertyForRent ORDER BY type, rent DESC;
SELECT COUNT(DISTINCT propertyNo) AS myCount FROM Viewing WHERE viewDate BETWEEN '1-May-04' AND '31-May-04';
SELECT COUNT(staffNo) AS myCount, SUM(salary) AS mySum FROM Staff WHERE position = 'Manager';
SELECT MIN(salary) AS myMin, MAX(salary) AS myMax, AVG(salary) AS myAvg FROM Staff;
SELECT staffNo, COUNT(salary) FROM Staff; --shwoing error that no aggregate or group clause
SELECT staffNo, fName, lName, position, salary FROM Staff WHERE salary > SOME (SELECT salary FROM Staff WHERE branchNo = 'B003');
SELECT staffNo, fName, lName, position, salary FROM Staff WHERE salary > ALL (SELECT salary FROM Staff WHERE branchNo = 'B003');

For DreamHome case study write at least 3 examples of each category for sorting, grouping and aggregate operations. Share your exercises as advised in the lab.

Sorting clauses

Solution:

SELECT staffNo, fName, lName, position FROM Staff ORDER BY fName ASC;

SELECT staffNo, fName, position, salary FROM Staff ORDER BY salary DESC;
SELECT fName, salary FROM Staff ORDER BY lName DESC;

Grouping clauses
Solution:
SELECT staffNo, fName, sex, salary FROM Staff WHERE position = 'Assistant' AND salary < 10000;
SELECT fName, position FROM Staff WHERE sex = 'M' AND position = 'Manager';
SELECT fName, lName, position FROM Staff WHERE (SELECT AVG(salary) FROM Staff) < salary;
Aggregateclauses
Solution:
SELECT COUNT(DISTINCT(propertyNo)) AS myCount FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';
SELECT clientNo, propertyNo AS ClientID, PropertyNo FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';
SELECT clientNo, comment FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

3.5 Saif Ur Rehman (SP19-BCS-021)

Perform all the examples in this lab.
Solution:
SELECT staffNo, fName, lName, salary FROM Staff ORDER BY salary DESC;
SELECT propertyNo, type, rooms, rent FROM PropertyForRent ORDER BY type;
SELECT propertyNo, type, rooms, rent FROM PropertyForRent ORDER BY type, rent DESC;
SELECT COUNT(DISTINCT propertyNo) AS myCount FROM Viewing WHERE viewDate BETWEEN '1-May-04' AND '31-May-04';
SELECT COUNT(staffNo) AS myCount, SUM(salary) AS mySum FROM Staff WHERE position = 'Manager';
SELECT MIN(salary) AS myMin, MAX(salary) AS myMax, AVG(salary) AS myAvg FROM Staff;
SELECT staffNo, COUNT(salary) FROM Staff; --shwoing error that no aggregate or group clause
SELECT staffNo, fName, lName, position, salary FROM Staff WHERE salary > SOME (SELECT salary FROM Staff WHERE branchNo = 'B003');
SELECT staffNo, fName, lName, position, salary FROM Staff WHERE salary > ALL (SELECT salary FROM Staff WHERE branchNo = 'B003');
For DreamHome case study write at least 3 examples of each category for sorting, grouping and aggregate operations. Share your exercises as advised in the lab.
Sorting clauses
Solution:
SELECT staffNo, fName, lName, position FROM Staff ORDER BY fName ASC;
SELECT staffNo, fName, position, salary FROM Staff ORDER BY salary DESC;

SELECT fName, salary FROM Staff ORDER BY lName DESC;

Grouping clauses
Solution:
SELECT staffNo, fName, sex, salary FROM Staff WHERE position = 'Assistant' AND salary < 10000;
SELECT fName, position FROM Staff WHERE sex = 'M' AND position = 'Manager';
SELECT fName, lName, position FROM Staff WHERE (SELECT AVG(salary) FROM Staff) < salary;
Aggregateclauses
Solution:
SELECT COUNT(DISTINCT(propertyNo)) AS myCount FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';
SELECT clientNo, propertyNo AS ClientID, PropertyNo FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';
SELECT clientNo, comment FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';

Reviewed by:
Muhammad Adil Mehmood (SP19-BCS-014)
Comments:
Working
Problems:
No problem at all
Rating: 1 – 10
10

3.6 Syed Huzaifa Abid (SP19-BCS-025)

-- Examples
SELECT staffNo, fName, lName, salary FROM staff ORDER BY salary DESC;
SELECT propertyNo, type, rooms, rent FROM propertyforrent ORDER BY type;
SELECT propertyNo, type, rooms, rent FROM propertyforrent ORDER BY type, rent DESC;
SELECT staffNo, COUNT(salary) FROM staff;
SELECT COUNT(*) AS myCount FROM propertyforrent WHERE rent <=10000;
SELECT COUNT(DISTINCT propertyNo) AS myCount FROM Viewing WHERE viewDate BETWEEN '1997-10-12' AND '2003-12-24';
SELECT COUNT(staffNo) AS myCount, SUM(salary) AS mySum FROM Staff WHERE position = ’Manager’;
SELECT MIN(salary) AS myMin, MAX(salary) AS myMax, AVG(salary) AS myAvg FROM staff;
SELECT staffNo, COUNT(salary) FROM staff;
SELECT staffNo, fName, lName, position, salary FROM staff WHERE (SELECT AVG(salary) FROM staff) < salary;
SELECT staffNo, fName, lName, position, salary FROM staff WHERE salary > SOME (SELECT salary FROM staff WHERE branchNo = 'C003');
SELECT staffNo, fName, lName, position, salary FROM staff WHERE salary > ALL (SELECT salary FROM staff WHERE branchNo = 'C003');

-- Sorting
SELECT staffNo, fName, lName, salary FROM staff ORDER BY salary ASC;
SELECT salary FROM staff ORDER BY salary DESC;
SELECT salary FROM staff ORDER BY salary ASC;

-- Grouping
SELECT staffNo, fName,lName, sex, salary FROM Staff WHERE position = 'Receptionist' AND salary < 40000;
SELECT fName,lName,branchNo FROM Staff WHERE sex = 'M' AND position = 'Manager';

```
SELECT fName, lName,salary, position FROM Staff WHERE (SELECT AVG(salary) FROM Staff) < salary;

-- Aggregate
SELECT COUNT(DISTINCT(propertyNo)) AS myCount FROM Viewing WHERE viewDate BETWEEN '1999-08-02' AND '2004-06-19';
SELECT COUNT(salary) AS myCount FROM staff WHERE salary BETWEEN '20000' AND '60000';
SELECT clientNo, propertyNo AS ClientID, PropertyNo FROM Viewing WHERE viewDate BETWEEN '2001-04-04' AND '2004-06-19';
```

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

3.7 Zulkifil Rehman (SP19-BCS-027)

```
-- Examples
SELECT staffNo, fName, lName, salary FROM staff ORDER BY salary DESC;
SELECT propertyNo, type, rooms, rent FROM propertyforrent ORDER BY type;
SELECT propertyNo, type, rooms, rent FROM propertyforrent ORDER BY type, rent DESC;
SELECT staffNo, COUNT(salary) FROM staff;
SELECT COUNT(*) AS myCount FROM propertyforrent WHERE rent <=10000;
SELECT COUNT(DISTINCT propertyNo) AS myCount FROM Viewing WHERE viewDate BETWEEN '1997-10-12' AND '2003-12-24';
SELECT COUNT(staffNo) AS myCount, SUM(salary) AS mySum FROM Staff WHERE position = ’Manager’;
SELECT MIN(salary) AS myMin, MAX(salary) AS myMax, AVG(salary) AS myAvg FROM staff;
SELECT staffNo, COUNT(salary) FROM staff;
SELECT staffNo, fName, lName, position, salary FROM staff WHERE (SELECT AVG(salary) FROM staff) < salary;
SELECT staffNo, fName, lName, position, salary FROM staff WHERE salary > SOME (SELECT salary FROM staff WHERE branchNo = 'C003');
SELECT staffNo, fName, lName, position, salary FROM staff WHERE salary > ALL (SELECT salary FROM staff WHERE branchNo = 'C003');

-- Sorting
SELECT staffNo, fName, lName, salary FROM staff ORDER BY salary ASC;
SELECT salary FROM staff ORDER BY salary DESC;
SELECT salary FROM staff ORDER BY salary ASC;

-- Grouping
SELECT staffNo, fName,lName, sex, salary FROM Staff WHERE position = 'Receptionist' AND salary < 40000;
SELECT fName,lName,branchNo FROM Staff WHERE sex = 'M' AND position = 'Manager';
SELECT fName, lName,salary, position FROM Staff WHERE (SELECT AVG(salary) FROM Staff) < salary;

-- Aggregate
SELECT COUNT(DISTINCT(propertyNo)) AS myCount FROM Viewing WHERE viewDate BETWEEN '1999-08-02' AND '2004-06-19';
SELECT COUNT(salary) AS myCount FROM staff WHERE salary BETWEEN '20000' AND '60000';
SELECT clientNo, propertyNo AS ClientID, PropertyNo FROM Viewing WHERE viewDate BETWEEN '2001-04-04' AND '2004-06-19';
```

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

3.8 Adnan Khurshid (SP19-BCS-029)

Perform all the examples in this lab.
Solution:

```
SELECT staffNo, fName, lName, salary FROM Staff ORDER BY salary DESC;
SELECT propertyNo, type, rooms, rent FROM PropertyForRent ORDER BY type;
SELECT propertyNo, type, rooms, rent FROM PropertyForRent ORDER BY type, rent DESC;
SELECT COUNT(DISTINCT propertyNo) AS myCount FROM Viewing WHERE viewDate BETWEEN '1-May-04' AND '31-May-04';
SELECT COUNT(staffNo) AS myCount, SUM(salary) AS mySum FROM Staff WHERE position = 'Manager';
SELECT MIN(salary) AS myMin, MAX(salary) AS myMax, AVG(salary) AS myAvg FROM Staff;
SELECT staffNo, COUNT(salary) FROM Staff; --shwoing error that no aggregate or group clause
SELECT staffNo, fName, lName, position, salary FROM Staff WHERE salary > SOME (SELECT salary FROM Staff WHERE branchNo = 'B003');
SELECT staffNo, fName, lName, position, salary FROM Staff WHERE salary > ALL (SELECT salary FROM Staff WHERE branchNo = 'B003');
```

For DreamHome case study write at least 3 examples of each category for sorting, grouping and aggregate operations. Share your exercises as advised in the lab.

Sorting clauses
Solution:

```
SELECT staffNo, fName, lName, position FROM Staff ORDER BY fName ASC;
SELECT staffNo, fName, position, salary FROM Staff ORDER BY salary DESC;
SELECT fName, salary FROM Staff ORDER BY lName DESC;
```

Grouping clauses
Solution:

```
SELECT staffNo, fName, sex, salary FROM Staff WHERE position = 'Assistant' AND salary < 10000;
SELECT fName, position FROM Staff WHERE sex = 'M' AND position = 'Manager';
SELECT fName, lName, position FROM Staff WHERE (SELECT AVG(salary) FROM Staff) < salary;
```

Aggregateclauses
Solution:

```
SELECT COUNT(DISTINCT(propertyNo)) AS myCount FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';
SELECT clientNo, propertyNo AS ClientID, PropertyNo FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';

SELECT clientNo, comment FROM Viewing WHERE viewDate BETWEEN '1-May-00' AND '31-May-04';
```

Reviewed by:.

Comments:

Problems:

Rating: 1 – 10

3.9 Ayesha Latif (SP19-BCS-030)

Perform all the examples in this lab.

Solution

SELECT staffNo, fName, lName, salary FROM Staff ORDER BY salary DESC;

SELECT propertyNo, type, rooms, rent FROM PropertyForRent ORDER BY type;

SELECT propertyNo, type, rooms, rent FROM PropertyForRent ORDER BY type, rent DESC;

SELECT COUNT(DISTINCT propertyNo) AS myCount FROM Viewing WHERE viewDate BETWEEN '2004-12-2' AND '2005-12-5';

SELECT COUNT(staffNo) AS myCount, SUM(salary) AS mySum FROM Staff WHERE position = 'Manager';

SELECT MIN(salary) AS myMin, MAX(salary) AS myMax, AVG(salary) AS myAvg FROM Staff;

SELECT staffNo, COUNT(salary) FROM Staff;

SELECT staffNo, fName, lName, position, salary FROM Staff WHERE salary > SOME (SELECT salary FROM Staff WHERE branchNo = 'f004');

SELECT staffNo, fName, lName, position, salary FROM Staff WHERE salary > ALL (SELECT salary FROM Staff WHERE branchNo = 'f005');

For DreamHome case study write at least 3 examples of each category for sorting, grouping and aggregate operations. Share your exercises as advised in the lab.

Sorting clauses

SELECT staffNo, fName, lName, position FROM Staff ORDER BY fName ASC;

SELECT staffNo, fName, position, salary FROM Staff ORDER BY salary DESC;

SELECT fName, salary FROM Staff ORDER BY lName DESC;

Grouping clause

SELECT staffNo, fName, sex, salary FROM Staff WHERE position = 'Assistant' AND salary < 30000;

SELECT fName, position FROM Staff WHERE sex = 'F' AND position = 'Manager';

SELECT fName, lName, position FROM Staff WHERE (SELECT AVG(salary) FROM Staff) < salary;

Aggregate clauses

SELECT COUNT(DISTINCT(propertyNo)) AS myCount FROM Viewing WHERE viewDate BETWEEN '1999-03-04 ' AND '2004-01-03';

SELECT clientNo, propertyNo AS ClientID, PropertyNo FROM Viewing WHERE viewDate BETWEEN '2006-05-19 ' AND '2007-02-23';

SELECT clientNo, comment FROM Viewing WHERE viewDate BETWEEN '2002-03-16 ' AND '2010-11-21';

Reviewed by:

Adnan Khurshid

Comments:

This class is pending by sir

Problems:

Pending

Rating: 1 – 10

Pending

4 Lab 9

4.1 Common Solution

4.2 Abdullah Javed (SP19-BCS-002)

4.3 Hamza Mushtaq (SP19-BCS-007)

4.4 Muhammad Adil Mehmood (SP19-BCS-014)

4.5 Saif Ur Rehman (SP19-BCS-021)

4.6 Syed Huzaifa Abid (SP19-BCS-025)

4.7 Zulkifil Rehman (SP19-BCS-027)

4.8 Adnan Khurshid (SP19-BCS-029)

4.9 Ayesha Latif (SP19-BCS-030)

5 Lab 10

5.1 Common Solution

5.2 Abdullah Javed (SP19-BCS-002)

5.3 Hamza Mushtaq (SP19-BCS-007)

5.4 Muhammad Adil Mehmood (SP19-BCS-014)

5.5 Saif Ur Rehman (SP19-BCS-021)

5.6 Syed Huzaifa Abid (SP19-BCS-025)

5.7 Zulkifil Rehman (SP19-BCS-027)

5.8 Adnan Khurshid (SP19-BCS-029)

5.9 Ayesha Latif (SP19-BCS-030)

6 Lab 11

6.1 Common Solution

```
use  dreamhome;
create table Abc (FName varchar(50) NOT NULL,familyName varchar (50) NOT NULL);
insert into Abc
values ('Hamza', 'Mushtaq'),
('Imad', 'Ahmad'),
('Zulfi', 'Rehman');

-- CONCATINATION
SELECT CONCAT("Hamza ", "Mushtaq ") AS ConcatenatedString;

-- extra string funtions
SELECT LENGTH(Fname) AS LengthOfString from Abc;
select LOCATE("i", "Zulfi");
SELECT upper("Hamza");
SELECT lower("Hamza");
SELECT REPEAT(familyName, 3) from Abc;
SELECT STRCMP("hamza1", "hamza");
SELECT SUBSTR("Hamza", 4) AS ExtractString;
SELECT LEFT("Hamza", 5) AS ExtractString;
SELECT ASCII(FName) FROM Abc;

-- Maths function
SELECT COT(6);
SELECT COS(2);
SELECT LOG(2);
SELECT SQUARE(64);
SELECT COUNT(Fname) AS NumberOfNames FROM Abc;
SELECT AVG(maxRent) AS AveragePrice FROM client;
SELECT MAX(maxRent) AS LargestPrice FROM client;
SELECT MIN(maxRent) AS SmallestPrice FROM client;
SELECT FLOOR(25.75) AS FloorValue;
SELECT CEILING(25.75) AS CeilValue;
```

6.2 Abdullah Javed (SP19-BCS-002)

```
create table AAASSS (FNAME varchar(50)NOT NULL, Familyname Varchar  NOT NULL);
INSERT INTO AAASSS
VALUES ('ABDULLAH','JAVED'),
('ADIL','MEHMOOD'),
('TALHA','JAWAD')
--CONCATINATION
SELECT CONCAT('ABDULLAH','Javed')
AS  Concantenatedstring;
--extra string functions
```

```
SELECT LEN ("Familyname") AS
LENGTHOFSTRING FROM AAASSS;
SELECT LEN('ABDULLAH');
SELECT upper('TALHA');
SELECT lower('TALHA');
SELECT REVERSE('HALLUDBA');
SELECT STR('12');
SELECT SUBSTRING('ABDULLAHJAVED', 1, 3) AS ExtractString;
SELECT REPLICATE('TALHA JAWAD ', 5);
SELECT LEFT('TALHA JAWAD', 3) AS ExtractString;
SELECT 'TALHA' + 'JAWAD';
SELECT ASCII('H')

-- Maths function
SELECT COT(90);
SELECT COS(45);
SELECT LOG(4);
SELECT SQUARE(12);
SELECT COUNT('42');
SELECT AVG(MA) AS AveragePrice FROM client;
SELECT MAX(maxRent) AS LargestPrice FROM client;
SELECT MIN(maxRent) AS SmallestPrice FROM client;
SELECT FLOOR(22.05) AS FloorValue;
SELECT CEILING(42.72) AS CeilValue;
```

6.3 Hamza Mushtaq (SP19-BCS-007)

6.4 Muhammad Adil Mehmood (SP19-BCS-014)

```
use  dreamhome;
create table Abc (FName varchar(50) NOT NULL,familyName varchar (50) NOT NULL);
insert into Abc
values ('Hamza', 'Mushtaq'),
('Imad', 'Ahmad'),
('Zulfi', 'Rehman');

-- CONCATINATION
SELECT CONCAT("Adil ", "Mehmood") AS ConcatenatedString;

-- extra string funtions
SELECT LENGTH(Fname) AS LengthOfString from Abc;
select LOCATE("i", "Adil");
SELECT upper("Hashir");
SELECT lower("Umer");
SELECT REPEAT(familyName, 3) from Abc;
SELECT STRCMP("Huzaifa1", "Huzaifa");
SELECT SUBSTR("Haider", 4) AS ExtractString;
SELECT LEFT("Hamza", 5) AS ExtractString;
SELECT ASCII(FName) FROM Abc;

-- Maths function
SELECT COT(6);
SELECT COS(2);
SELECT LOG(2);
```

```
SELECT SQUARE(64);
SELECT COUNT(Fname) AS NumberOfNames FROM Abc;
SELECT AVG(maxRent) AS AveragePrice FROM client;
SELECT MAX(maxRent) AS LargestPrice FROM client;
SELECT MIN(maxRent) AS SmallestPrice FROM client;
SELECT FLOOR(25.75) AS FloorValue;
SELECT CEILING(25.75) AS CeilValue;
```

6.5 Saif Ur Rehman (SP19-BCS-021)

6.6 Syed Huzaifa Abid (SP19-BCS-025)

```
use  dreamhome;
create table Abc (FName varchar(50) NOT NULL,familyName varchar (50) NOT NULL);
insert into Abc
values ('Hamza', 'Mushtaq'),
('Imad', 'Ahmad'),
('Zulfi', 'Rehman');

-- CONCATINATION
SELECT CONCAT("Hamza ", "Mushtaq ") AS ConcatenatedString;

-- extra string funtions
SELECT LENGTH(Fname) AS LengthOfString from Abc;
select LOCATE("i", "Zulfi");
SELECT upper("Hamza");
SELECT lower("Hamza");
SELECT REPEAT(familyName, 3) from Abc;
SELECT STRCMP("hamza1", "hamza");
SELECT SUBSTR("Hamza", 4) AS ExtractString;
SELECT LEFT("Hamza", 5) AS ExtractString;
SELECT ASCII(FName) FROM Abc;

-- Maths function
SELECT COT(6);
SELECT COS(2);
SELECT LOG(2);
SELECT SQUARE(64);
SELECT COUNT(Fname) AS NumberOfNames FROM Abc;
SELECT AVG(maxRent) AS AveragePrice FROM client;
SELECT MAX(maxRent) AS LargestPrice FROM client;
SELECT MIN(maxRent) AS SmallestPrice FROM client;
SELECT FLOOR(25.75) AS FloorValue;
SELECT CEILING(25.75) AS CeilValue;
```

6.7 Zulkifil Rehman (SP19-BCS-027)

6.8 Adnan Khurshid (SP19-BCS-029)

6.9 Ayesha Latif (SP19-BCS-030)

```
create table record (FriendName varchar(50) NOT NULL,familyName varchar (50) NOT NULL);
insert into record
```

```
values ('ayesha', 'kinza'),
('ali', 'lariab'),
('raza', 'haseeb');

 -- CONCATINATION
  SELECT CONCAT("laraib ", "haseeb ") AS ConcatenatedString;
-- extra string funtions

 SELECT LENGTH(FriendName) AS LengthOfString from record;
 select LOCATE("h", "raza");
 SELECT upper("ayesha");
 SELECT lower("ayesha");
 SELECT REPEAT(familyName, 3) from record;
 SELECT STRCMP("haseeb1", "haseeb");
 SELECT SUBSTR("haseeb", 6) AS ExtractString;
 SELECT LEFT("SQL workbench", 7) AS ExtractString;
 SELECT ASCII(FriendName) FROM record;
```

Math funication

```
 SELECT CRC32('string');
 SELECT 12 / 3;
 SELECT LOG10(1000);
 SELECT ROUND(4.43);
 SELECT COT(26);
 SELECT COS(34);
 SELECT LOG(5);
 SELECT SQUARE(10);
 SELECT COUNT('50');
 SELECT AVG(MA) AS AveragePrice FROM client;
 SELECT MAX(maxRent) AS LargestPrice FROM client;
 SELECT MIN(maxRent) AS SmallestPrice FROM client;
 SELECT FLOOR(20.05) AS FloorValue;
 SELECT CEILING(30.72) AS CeilValue;
```

7 Lab 12

7.1 Common Solution

7.2 Abdullah Javed (SP19-BCS-002)

7.3 Hamza Mushtaq (SP19-BCS-007)

7.4 Muhammad Adil Mehmood (SP19-BCS-014)

7.5 Saif Ur Rehman (SP19-BCS-021)

7.6 Syed Huzaifa Abid (SP19-BCS-025)

7.7 Zulkifil Rehman (SP19-BCS-027)

7.8 Adnan Khurshid (SP19-BCS-029)

7.9 Ayesha Latif (SP19-BCS-030)

8 Lab 13

8.1 Common Solution

8.2 Abdullah Javed (SP19-BCS-002)

8.3 Hamza Mushtaq (SP19-BCS-007)

8.4 Muhammad Adil Mehmood (SP19-BCS-014)

8.5 Saif Ur Rehman (SP19-BCS-021)

8.6 Syed Huzaifa Abid (SP19-BCS-025)

8.7 Zulkifil Rehman (SP19-BCS-027)

8.8 Adnan Khurshid (SP19-BCS-029)

8.9 Ayesha Latif (SP19-BCS-030)

9 Lab 14

9.1 Common Solution

9.2 Abdullah Javed (SP19-BCS-002)

9.3 Hamza Mushtaq (SP19-BCS-007)

9.4 Muhammad Adil Mehmood (SP19-BCS-014)

9.5 Saif Ur Rehman (SP19-BCS-021)

9.6 Syed Huzaifa Abid (SP19-BCS-025)

9.7 Zulkifil Rehman (SP19-BCS-027)

9.8 Adnan Khurshid (SP19-BCS-029)

9.9 Ayesha Latif (SP19-BCS-030)

10Lab 15

10.1 Common Solution

10.2 Abdullah Javed (SP19-BCS-002)

10.3 Hamza Mushtaq (SP19-BCS-007)

10.4 Muhammad Adil Mehmood (SP19-BCS-014)

10.5 Saif Ur Rehman (SP19-BCS-021)

10.6 Syed Huzaifa Abid (SP19-BCS-025)

10.7 Zulkifil Rehman (SP19-BCS-027)

10.8 Adnan Khurshid (SP19-BCS-029)

10.9 Ayesha Latif (SP19-BCS-030)

11Lab 16

11.1 Common Solution

11.2 Abdullah Javed (SP19-BCS-002)

11.3 Hamza Mushtaq (SP19-BCS-007)

11.4 Muhammad Adil Mehmood (SP19-BCS-014)

11.5 Saif Ur Rehman (SP19-BCS-021)

11.6 Syed Huzaifa Abid (SP19-BCS-025)

11.7 Zulkifil Rehman (SP19-BCS-027)

11.8 Adnan Khurshid (SP19-BCS-029)

11.9 Ayesha Latif (SP19-BCS-030)

12Lab 17

12.1 Common Solution

12.2 Abdullah Javed (SP19-BCS-002)

12.3 Hamza Mushtaq (SP19-BCS-007)

12.4 Muhammad Adil Mehmood (SP19-BCS-014)

12.5 Saif Ur Rehman (SP19-BCS-021)

12.6 Syed Huzaifa Abid (SP19-BCS-025)

12.7 Zulkifil Rehman (SP19-BCS-027)

12.8 Adnan Khurshid (SP19-BCS-029)

12.9 Ayesha Latif (SP19-BCS-030)

13Lab 18

13.1 Common Solution

13.2 Abdullah Javed (SP19-BCS-002)

13.3 Hamza Mushtaq (SP19-BCS-007)

13.4 Muhammad Adil Mehmood (SP19-BCS-014)

13.5 Saif Ur Rehman (SP19-BCS-021)

13.6 Syed Huzaifa Abid (SP19-BCS-025)

13.7 Zulkifil Rehman (SP19-BCS-027)

13.8 Adnan Khurshid (SP19-BCS-029)

13.9 Ayesha Latif (SP19-BCS-030)

14Lab 19

14.1 Common Solution

14.2 Abdullah Javed (SP19-BCS-002)

14.3 Hamza Mushtaq (SP19-BCS-007)

14.4 Muhammad Adil Mehmood (SP19-BCS-014)

14.5 Saif Ur Rehman (SP19-BCS-021)

14.6 Syed Huzaifa Abid (SP19-BCS-025)

14.7 Zulkifil Rehman (SP19-BCS-027)

14.8 Adnan Khurshid (SP19-BCS-029)

14.9 Ayesha Latif (SP19-BCS-030)

15Lab 20

15.1 Common Solution

15.2 Abdullah Javed (SP19-BCS-002)

15.3 Hamza Mushtaq (SP19-BCS-007)

15.4 Muhammad Adil Mehmood (SP19-BCS-014)

15.5 Saif Ur Rehman (SP19-BCS-021)

15.6 Syed Huzaifa Abid (SP19-BCS-025)

15.7 Zulkifil Rehman (SP19-BCS-027)

15.8 Adnan Khurshid (SP19-BCS-029)

15.9 Ayesha Latif (SP19-BCS-030)