INFO 2103

DATABASE PROGRAMMING

Section : 03

Project Report

Task 1-8

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1.1 Title: Mahallah Management System

1.2 Scenario:

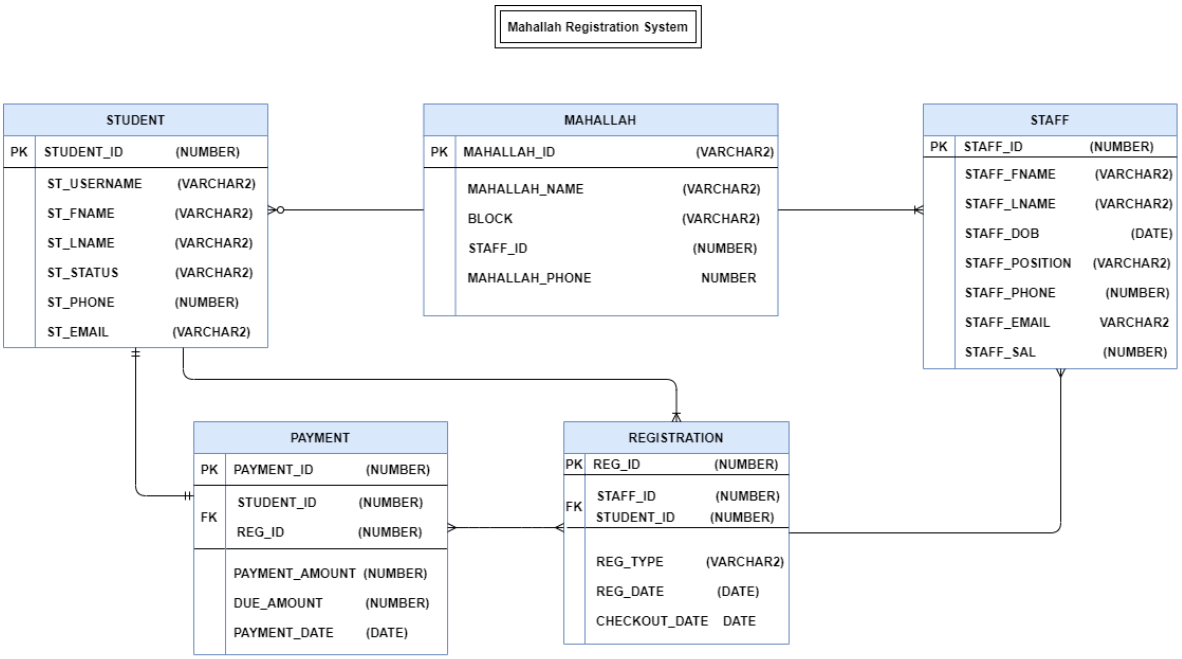
We are going to develop a system named “Mahallah Management System”. Where we can make a database to record all the student information and their accommodation. In our University’s Mahallah, most of the data are needed to fill up manually. Almost every semester student is facing problems to register Mahallah manually. However, when someone graduates, his/her data will be lost. In Addition, our university has three category students which are undergraduate, postgraduate and alumni. In that case it is not an easy task to record all the data into a sheet of paper although their accommodation types are different. So, the team members of our project, will be trying to construct a system for the Mahallah management system, in order to conclude the strategy in an effortless as well as efficient way.

This project will include five tables in total (Student, Staff, Payment, Registration, Mahallah). Each table will have its primary key. Foreign keys will be used where necessary.

2.1 Entity:

- ❏ Student
- ❏ Mahallah
- ❏ Staff
- ❏ Registration
- ❏ Payment

2.2 Conceptual ER diagram :



3. Data dictionary for the ER diagram :

3.1Student

Attribute Name	Data Type	Size	NULL
student_id	NUMBER	8	NO (PK)
st_username	VARCHAR2	18	NO
st_fname	VARCHAR2	10	NO
st_lname	VARCHAR2	10	NO
st_status	VARCHAR2	10	NO
st_phone	NUMBER	12	NO
st_email	VARCHAR2	25	YES

3.2 Mahallah

Attribute Name	Data Type	Size	NULL
mahallah_id	VARCHAR2	12	NO (PK)
mahallah_name	VARCHAR2	15	NO
block	VARCHAR2	5	NO
staff_id	NUMBER	8	NO
mahallah_phone	NUMBER		YES

3.3 Staff

Attribute Name	Data Type	Size	NULL
staff_id(PK)	NUMBER	8	NO (PK)
staff_fname	VARCHAR2	12	NO
staff_lname	VARCHAR2	12	NO
staff_dob	DATE		NO
staff_position	VARCHAR2	15	NO
staff_phone	NUMBER		YES
staff_email	VARCHAR2	25	NO
staff_sal	NUMBER	(15,2)	NO

3.4 Registration

Attribute Name	Data Type	Size	NULL
reg_id	NUMBER	6	NO (PK)
staff_id	NUMBER	8	NO (FK)
student_id	NUMBER	8	NO (FK)
reg_type	VARCHAR2	10	NO
reg_date	DATE		NO
checkout_date	DATE		NO

3.5 Payment

Attribute Name	Data Type	Size	NULL
payment_id	NUMBER	10	NO (PK)
student_id	NUMBER	8	NO (FK)
reg_id	NUMBER	6	NO (FK)
payment_amount	NUMBER	(15, 2)	NO
due_amount	NUMBER	(15, 2)	NO
payment_date	DATE		NO

4. Creations of Table:

4.1 Drop Table Statement:

```
drop table student cascade constraints;
drop table staff cascade constraints;
drop table payment cascade constraints;
drop table mahallah cascade constraints;
drop table registration cascade constraints;
```

4.2 Create Table Statement:

```
create table student
    (student_id number(8),
    st_username varchar2(18) not null,
    st_fname varchar2(10) not null,
    st_lname varchar2(10) not null,
    st_status varchar2(10) not null,
    st_phone number(12) not null,
    st_email varchar2(25),
    primary key(student_id));

create table mahallah
   (mahallah_id varchar2(12),
    mahallah_name varchar2(15) not null,
    block varchar2(5)not null,
    staff_id number(8) not null,
    mahallah_phone number,
    primary key(mahallah_id));

create table staff
   (staff_id number(8),
    staff_fname varchar2(12) not null,
    staff_lname varchar2(12) not null,
    staff_dob date not null,
    staff_position varchar2(15) not null,
    staff_phone number,
    staff_email varchar2(25) not null,
    staff_sal number(15,2),
    primary key(staff_id));
```

```
create table registration
    (registration_id number(6),
    staff_id number(8),
    student_id number(8),
    registration_type varchar2(10) not null,
    registration_date date not null,
    checkout_date date not null,
    primary key(registration_id),
    foreign key(staff_id) references staff(staff_id),
    foreign key(student_id) references student(student_id));


create table payment
    (invoice_no number(10),
    student_id number(8),
    registration_id number(6),
    payment_amount number(15,2) not null,
    due_amount number(15,2) not null,
    payment_date date,
    primary key (invoice_no),
    foreign key (student_id) references student(student_id),
    foreign key (registration_id) references registration(registration_id));
```

5. Script to populate the data for the tables:

5.1 Student

```
insert into student
values(1725413,'tanveer.mahmood','Tanveer','Mahmood','Undergrad',0183536506,'tanveer.iium@gmail.com');

insert into student
values(1725501,'raisul.islam','Raisul','Islam','Undergrad',0182605517,'raisulislam48@gmail.com');

insert into student
values(1723387,'maskur.sayed','Maskur','Sayed','Undergrad',0182289849,'maskurbillah@gmail.com');

insert into student
values(1725826,'rafia.tasnim','Rafia','Tasnim','Undergrad',01116295637,'protiksha777@gmail.com');

insert into student
values(172345,'noman.mir','Noman','Mir','Undergrad',0182605517,'noman.iium@gmail.com');

insert into student
values(1725531,'nazmus.sakib','Nazmus','Sakib','Postgrad',0185605517,'nazmus.iium@gmail.com');

insert into student
values(1325505,'rakib.comilla','Rakib','Comilla','Alumni',0182665517,'rakib22.iium@gmail.com');
```

```
insert into student
values(1725506,'jaki.islam','Jaki','Islam','Postgrad',0182600517,'jaki.iium@gmail.com')
;

insert into student
values(1225511,'imran.alam','Imran','Alam','Alumni',0182205517,'imran.iium@gmail.
com');

insert into student
values(181601,'ikram.kays','Ikram','Kays','Undergrad',0182665517,'ikram.iium@gmail.
com');

insert into student
values(171601,'jubair.islam','Jubair','Islam','Undergrad',0182655517,'jubair.iium@gm
ail.com');

insert into student
values(171602,'ashiq.islam','Ashiq','Islam','Undergrad',0186655517,'ashiq.iium@gmail
.com');

insert into student
values(121661,'sharif.islam','Sharif','Islam','Alumni',0182655555,'sharif.iium@gmail.c
om');

insert into student
values(171662,'shariful.islam','Shariful','Islam','Undergrad',0112655517,'shariful.iium
@gmail.com');

insert into student
values(171607,'masu.karim','Masu','Karim','Undergrad',0112255517,'masu.iium@gm
ail.com');
```

```
insert into student
values(173601,'adnan.rahman','Adnan','Rahman','Postgrad',0133355517,'adnan.iium
@gmail.com');

insert into student
values(183601,'sayed.islam','Sayed','Islam','Undergrad',0112655017,'sayed.iium@gm
ail.com');

insert into student
values(173552,'arefin.islam','Arefin','Islam','Undergrad',0172555517,'arefin.iium@gm
ail.com');

insert into student
values(1731662,'borha.rahman','Borha','Rahman','Postgrad',0133355517,'borha.iium
@gmail.com');

insert into student
values(1733601,'tanvirul.mahin','Tanvirul','Mahin','Postgrad',0112355517,'tanvirul.iiu
m@gmail.com');

insert into student
values(113601,'ahsan.rahman','Ahsan','Rahman','Alumni',0117355517,'ahsan.iium@g
mail.com');

insert into student
values(163601,'.ariful.hoq','Ariful','Hoq','Postgrad',0156355517,'ariful.iium@gmail.co
m');
```

```
insert into student
values(1735601,'ferds.mahmud','Ferds','Mahmud','Postgrad',0182605517,'ferds.iium
@gmail.com');

insert into student
values(1631601,'alamin.bhui','Alamin','Bhui','Undergrad',0188355517,'alamin.iium@g
mail.com');

insert into student
values(173111,'sakil.rahman','Sakil','Rahman','Undergrad',0185655517,'sakil.iium@g
mail.com');

insert into student
values(1736022,'nur.rahman','Nur','Rahman','Postgrad',0166655517,'nur.iium@gmail.
com');

insert into student
values(133611,'sojol.rahman','Sojol','Rahman','Alumni',0188885517,'sojol.iium@gmai
l.com');

insert into student
values(173001,'milon.mrida','Milon','Mrida','Postgrad',0177775517,'milon.iium@gmai
l.com');

insert into student
values(153601,'sujon.rahman','Sujon','Rahman','Postgrad',0115565517,'sujon.iium@g
mail.com');

insert into student
values(1833601,'rafi.rahman','Rafi','Rahman','Postgrad',0114455517,'rafi.iium@gmail.
com');
```

```
insert into student
values(171001,'rofiq.sayed','Rofiq','Sayed','Undergrad',0185632557,'rofiq.iium@gmail
.com');

insert into student
values(122601,'xinia.mahmud','Xinia','Mahmud','Alumni',0188605517,'xinia.iium@gm
ail.com');

insert into student
values(1733001,'jarin.mahmud','Jarin','Mahmud','Postgrad',0182685517,'jarin.iium@
gmail.com');

insert into student
values(163611,'tripty.afroz','Tripty','Afroz','Postgrad',0182605717,'tripty.iium@gmail.
com');

insert into student
values(182601,'farhana.hoq','Farhana','Hoq','Undergrad',0182605507,'farhana.iium@
gmail.com');

insert into student
values(113603,'mithi.mahmud','Mithi','Mahmud','Alumni',0182605510,'mithi.iium@g
mail.com');

insert into student
values(193601,'afiya.khan','Afiya','Khan','Postgrad',0182605500,'afiya.iium@gmail.co
m');
```

```
insert into student
values(182602,'mahfuza.hoq','Mahfuza','Hoq','Undergrad',0156325517,'mahfuza.iium
@gmail.com');

insert into student
values(183603,'taniya.islam','Taniya','Islam','Undergrad',0156225517,'taniya.iium@g
mail.com');

insert into student
values(192602,'jarina,khan','Jarina','Khan','Postgrad',0156355517,'jarina.iium@gmail.
com');

insert into student
values(102602,'abdur.rahman','Abdur','Rahman','Alumni',0156355517,'abdur.iium@g
mail.com');

insert into student
values(112652,'shima.hoq','Shima','Hoq','Alumni',0153325517,'shima.iium@gmail.co
m');

insert into student
values(182662,'saif.ali','Saif','Ali','Undergrad',0156325587,'saif.iium@gmail.com');

insert into student
values(192601,'mahin.islam','Mahin','Islam','Undergrad',0156335537,'mahin.iium@g
mail.com');

insert into student
values(162603,'tamim.ikbal','Tamim','Ikbal','Postgrad',0156665517,'tamim.iium@gma
il.com');
```

```
insert into student
values(163604,'sakib.hasan','Sakib','Hasan','Postgrad',0156345517,'sakib.iium@gmail.
com');

insert into student
values(113502,'mushfiq.hoq','Mushfiq','Hoq','Alumni',0156555517,'mushfiq.iium@gm
ail.com');

insert into student
values(1826022,'apon.mahmud','Apon','Mahmud','Undergrad',01126456519,'apon.iiu
m@gmail.com');

insert into student
values(152603,'muqtar.rahman','Muqtar','Rahman','Postgrad',0112456519,'muqtar.ii
um@gmail.com');

insert into student
values(111501,'mashrafe.mortaza','Mashrafe','Mortaza','Alumni',0112645687,'mashr
afe.iium@gmail.com');

insert into student
values(192503,'abdul.reza','Abdul','Reza','Undergrad',01126456919,'abdul.iium@gma
il.com');
```

5.2 Mahallah

```
insert into mahallah values('Z2425','Zubair','A',123124,03195482);
insert into mahallah values('Z2428','Zubair','B',123124,03195482);
insert into mahallah values('Z2421','Zubair','C',123124,03195482);
insert into mahallah values('Z3425','Zubair','D',123124,03195482);
insert into mahallah values('Z2444','Zubair','E',123124,03195482);
insert into mahallah values('A2425','Ali','A',123339,03198432);
insert into mahallah values('A2228','Ali','B',123339,03198432);
insert into mahallah values('A3421','Ali','C',123339,03198432);
```

```
insert into mahallah values('A9025','Ali','D',123339,03198432);
insert into mahallah values('A4494','Ali','E',123339,03198432);
insert into mahallah values('F2446','Faruq','A',122113,03175557);
insert into mahallah values('F2210','Faruq','B',122113,03175557);
insert into mahallah values('F0921','Faruq','C',122113,03175557);
insert into mahallah values('F3125','Faruq','D',122113,03175557);
insert into mahallah values('F3394','Faruq','E',122113,03175557);
insert into mahallah values('B2446','Belal','A',142113,03444312);
insert into mahallah values('B2210','Belal','B',142113,03444312);
insert into mahallah values('B0921','Belal','C',142113,03444312);
insert into mahallah values('B3125','Belal','D',142113,03444312);
insert into mahallah values('B3394','Belal','E',142113,03444312);
insert into mahallah values('O5446','Osman','A',152113,03555312);
insert into mahallah values('O2510','Osman','B',152113,03555312);
insert into mahallah values('O0771','Osman','C',152113,03555312);
insert into mahallah values('O6625','Osman','D',152113,03555312);
insert into mahallah values('O3310','Osman','E',152113,03555312);
insert into mahallah values('A9425','Asiah','A',823124,04195482);
insert into mahallah values('A9428','Asiah','B',823124,04195482);
insert into mahallah values('A9421','Asiah','C',823124,04195482);
insert into mahallah values('A9445','Asiah','D',823124,04195482);
insert into mahallah values('A9444','Asiah','E',823124,04195482);
insert into mahallah values('H2425','Halima','A',823310,04198432);
insert into mahallah values('H2228','Halima','B',823310,04198432);
insert into mahallah values('H3421','Halima','C',823310,04198432);
insert into mahallah values('H9025','Halima','D',823310,04198432);
insert into mahallah values('H4494','Halima','E',823310,04198432);
insert into mahallah values('M2246','Mariyam','A',822113,04675557);
insert into mahallah values('M2290','Mariyam','B',822113,04675557);
insert into mahallah values('M0921','Mariyam','C',822113,04675557);
insert into mahallah values('M3125','Mariyam','D',822113,04675557);
insert into mahallah values('M3394','Mariyam','E',822113,04675557);
insert into mahallah values('R2446','Ruqaiyyah','A',842113,04444312);
insert into mahallah values('R2210','Ruqaiyyah','B',842113,04444312);
insert into mahallah values('R0921','Ruqaiyyah','C',842113,04444312);
insert into mahallah values('R3125','Ruqaiyyah','D',842113,04444312);
insert into mahallah values('R3394','Ruqaiyyah','E',842113,04444312);
insert into mahallah values('S6446','Safiyah','A',852113,04585312);
insert into mahallah values('S8510','Safiyah','B',852113,04585312);
insert into mahallah values('S9771','Safiyah','C',852113,04585312);
insert into mahallah values('S2225','Safiyah','D',852113,04585312);
insert into mahallah values('S1110','Safiyah','E',852113,04585312);
```

5.3 Staff

```
insert into staff
values(123124,'Hamim','Monu',to_date('04-AUG-80'),'Principal',03116755,'hamim.monu
@outlook.com',4500.00);

insert into staff
values(123339,'Kays','Dibro',to_date('05-SEP-71'),'Principal',03116766,'kays.dbro@outlook
.com',5000.00);

insert into staff
values(122113,'Ashak','Dibro',to_date('07-APR-79'),'Principal',03116555,'ashakdibro@gma
il.com',4800.00);

insert into staff
values(142113,'Zubair','Dibro',to_date('18-OCT-75'),'Principal',04114755,'zubairbraja@out
look.com',4200.00);

insert into staff
values(152113,'Kala','Mia',to_date('27-AUG-77'),'Principal',03336755,'miaiskala@live.com'
,4500.00);

insert into staff
values(823124,'Azhar','Hossain',to_date('22-MAR-78'),'Principal',09816755,'azharmia@live
.com',4800.00);

insert into staff
values(823310,'Shah','Alam',to_date('15-JAN-80'),'Principal',03119995,'imamsa@outlook.c
om',4500.00);

insert into staff
values(822113,'Shamima','Ahmed',to_date('17-AUG-76'),'Principal',07116755,'sham123@
outlook.com',4800.00);

insert into staff
values(842113,'Kawsar','Hossain',to_date('25-MAY-80'),'Principal',09996755,'iamkawsar@
gmail.com',5000.00);

insert into staff
values(852113,'Hamima','Ahmed',to_date('18-DEC-82'),'Principal',01111155,'hamima1234
@outlook.com',4800.00);
```

```
insert into staff
values(123125,'Hakim','Kawla',to_date('26-FEB-82'),'Accountant',03116555,'kawlahakim@outlook.com',3200.00);

insert into staff
values(123340,'Afiq','Bhai',to_date('23-FEB-84'),'Accountant',03446766,'afiqmiao@outlook.com',3500.00);

insert into staff
values(122114,'Ela','Bhosak',to_date('11-AUG-82'),'Accountant',05116555,'ela4321@gmail.com',3500.00);

insert into staff
values(142114,'KM','Zubaer',to_date('08-MAR-80'),'Accountant',05114755,'khwajakm32@outlook.com',3000.00);

insert into staff
values(152114,'Dhola','Mia',to_date('21-MAY-83'),'Accountant',05336755,'dholabro21@live.com',3200.00);

insert into staff
values(823125,'Azan','Ahmed',to_date('16-APR-86'),'Accountant',05816755,'ahmadvai@live.com',3500.00);

insert into staff
values(823311,'Abid','Labid',to_date('09-SEP-89'),'Accountant',05119995,'abidnamil@outlook.com',3700.00);

insert into staff values(822114,'Lubna','Binte
Zafar',to_date('14-JAN-87'),'Accountant',05116755,'lubna1223@outlook.com',3700.00);

insert into staff
values(842114,'Noor','Maisara',to_date('09-NOV-82'),'Accountant',05996755,'noormaisara@gmail.com',3500.00);

insert into staff
values(852114,'Noor','Liana',to_date('04-APR-88'),'Accountant',05111155,'noorliana1234@outlook.com',3200.00);

insert into staff
values(123127,'Ashar','Alo',to_date('07-JUN-89'),'Receptionist',06116555,'aalo@outlook.com',3000.00);
```

```
insert into staff
values(123342,'Saleh','Uddin',to_date('18-JUL-92'),'Receptionist',06446766,'salehuddin33
@outlook.com',2800.00);

insert into staff
values(122116,'Zofia','Bhosak',to_date('29-SEP-92'),'Receptionist',06116555,'zofia4321@g
mail.com',2900.00);

insert into staff
values(142116,'Alauddin','Gabru',to_date('17-JUN-93'),'Receptionist',06114755,'alawuddin
@outlook.com',2800.00);

insert into staff
values(152116,'Shehnaz','Ahmed',to_date('09-JUL-91'),'Receptionist',06336755,'shehnaz2
21@live.com',2500.00);

insert into staff
values(823127,'Akeem','Muhammad',to_date('27-JAN-94'),'Receptionist',06816755,'akee
mvai@live.com',2700.00);

insert into staff
values(823313,'Nabila','Noor',to_date('16-MAR-94'),'Receptionist',06119995,'nabila22341
@outlook.com',2800.00);

insert into staff
values(822116,'Yumna','Hossain',to_date('12-SEP-94'),'Receptionist',06116755,'yumna122
3@outlook.com',3000.00);

insert into staff
values(842116,'Barkullah','Aba',to_date('28-DEC-93'),'Receptionist',06996755,'barkullah20
20@gmail.com',3000.00);

insert into staff
values(852116,'Noor','Halima',to_date('02-AUG-91'),'Receptionist',06111155,'its.halima@
outlook.com',2800.00);
```

5.4 Registration

5.5 Payment

```
insert into payment
values(50001,1725413,1001,625.85,00.00,to_date('02-FEB-20'));

insert into payment insert into registration
values(1001,123124,1725413,'Quad',to_date('25-FEB-20'),to_date('28-JUN-20'));

insert into registration
values(1002,123124,1725501,'Quad',to_date('25-FEB-20'),to_date('28-JUN-20'));

insert into registration
values(1003,123124,1723387,'Quad',to_date('25-JAN-20'),to_date('28-APR-20'));

insert into registration
values(1004,123124,1725826,'Quad',to_date('20-OCT-20'),to_date('20-JAN-21'));

insert into registration
values(1005,123124,172345,'Quad',to_date('25-FEB-20'),to_date('28-FEB-20'));

insert into registration
values(1006,123339,1725531,'Quad',to_date('26-JUN-20'),to_date('26-SEP-20'));

insert into registration
values(1007,123339,1325505,'Single',to_date('14-JAN-20'),to_date('14-APR-20'));

insert into registration
values(1008,123339,1725506,'Quad',to_date('26-JUL-20'),to_date('26-OCT-20'));

insert into registration
values(1009,123339,1225511,'Single',to_date('26-SEP-20'),to_date('26-DEC-20'));

insert into registration
values(1010,123339,181601,'Quad',to_date('26-JAN-20'),to_date('26-APR-20'));

insert into registration
values(1011,122113,171601,'Quad',to_date('01-JAN-20'),to_date('01-APR-20'));

insert into registration
values(1012,122113,171602,'Quad',to_date('14-JAN-20'),to_date('14-APR-20'));
```

```
insert into registration
values(1013,122113,121661,'Single',to_date('20-JAN-20'),to_date('20-APR-20'));
insert into registration
values(1014,122113,171662,'Quad',to_date('26-SEP-20'),to_date('26-DEC-20'));

insert into registration
values(1015,122113,171607,'Quad',to_date('26-OCT-20'),to_date('26-JAN-21'));


insert into registration
values(1016,142113,173601,'Single',to_date('01-JAN-20'),to_date('01-APR-20'));

insert into registration
values(1017,142113,183601,'Quad',to_date('14-JAN-20'),to_date('14-APR-20'));

insert into registration
values(1018,142113,173552,'Quad',to_date('20-JAN-20'),to_date('20-APR-20'));

insert into registration
values(1019,142113,1731662,'Single',to_date('26-SEP-20'),to_date('26-DEC-20'));

insert into registration
values(1020,142113,1733601,'Single',to_date('26-OCT-20'),to_date('26-JAN-21'));

insert into registration
values(1021,152113,113601,'Single',to_date('09-JAN-20'),to_date('09-APR-20'));

insert into registration
values(1022,152113,163601,'Single',to_date('14-DEC-20'),to_date('14-MAR-20'));

insert into registration
values(1023,152113 ,1735601,'Single',to_date('20-JAN-20'),to_date('20-APR-20'));

insert into registration
values(1024,152113,1631601,'Quad',to_date('26-SEP-20'),to_date('26-DEC-20'));

insert into registration
values(1025,152113,173111,'Quad',to_date('26-JAN-20'),to_date('26-APR-21'));

insert into registration
values(1026,823124,1736022,'Single',to_date('01-JUN-20'),to_date('01-SEP-20'));
```

```
insert into registration
values(1027,823124,133611,'SIngle',to_date('08-JAN-20'),to_date('08-APR-20'));

insert into registration
values(1028,823124,173001,'Single',to_date('19-JAN-20'),to_date('19-APR-20'));

insert into registration
values(1029,823124,153601,'Single',to_date('22-SEP-20'),to_date('22-DEC-20'));

insert into registration
values(1030,823124,1833601,'Single',to_date('26-OCT-20'),to_date('26-JAN-21'));

insert into registration
values(1031,823310,171001,'Quad',to_date('01-JAN-20'),to_date('01-APR-20'));

insert into registration
values(1032,823310,122601,'Single',to_date('14-JAN-20'),to_date('14-APR-20'));

insert into registration
values(1033,823310,1733001,'Single',to_date('20-JAN-20'),to_date('20-APR-20'));

insert into registration
values(1034,823310,163611,'Single',to_date('26-SEP-20'),to_date('26-DEC-20'));

insert into registration
values(1035,823310,182601,'Quad',to_date('26-OCT-20'),to_date('26-JAN-21'));

insert into registration
values(1036,822113,113603,'Single',to_date('25-FEB-20'),to_date('28-JUN-20'));

insert into registration
values(1037,822113,193601,'Single',to_date('25-FEB-20'),to_date('28-JUN-20'));

insert into registration
values(1038,822113,182662,'Quad',to_date('25-JAN-20'),to_date('28-APR-20'));

insert into registration
values(1039,822113,183603,'Quad',to_date('20-OCT-20'),to_date('20-JAN-21'));

insert into registration
values(1040,822113,192602,'Quad',to_date('25-FEB-20'),to_date('28-FEB-20'));
```

```
insert into registration
values(1041,842113,102602,'Single',to_date('14-FEB-20'),to_date('14-JUN-20'));

insert into registration
values(1042,842113,112652,'Single',to_date('26-MAR-20'),to_date('26-JUN-20'));

insert into registration
values(1043,842113,182602,'Quad',to_date('11-JAN-20'),to_date('11-APR-20'));

insert into registration
values(1044,842113,192601,'Quad',to_date('20-NOV-20'),to_date('20-FEB-21'));

insert into registration
values(1045,842113,162603,'Single',to_date('07-FEB-20'),to_date('07-FEB-20'));

insert into registration
values(1046,852113,163604,'Single',to_date('14-FEB-20'),to_date('14-JUN-20'));

insert into registration
values(1047,852113,113502,'Single',to_date('26-MAR-20'),to_date('26-JUN-20'));

insert into registration
values(1048,852113,1826022,'Quad',to_date('11-JAN-20'),to_date('11-APR-20'));

insert into registration
values(1049,852113,152603,'Single',to_date('20-NOV-20'),to_date('20-FEB-21'));

insert into registration
values(1050,852113,111501,'Single',to_date('07-FEB-20'),to_date('07-FEB-20'));

insert into registration
values(1051,852113,192503,'Quad',to_date('07-FEB-20'),to_date('07-FEB-20'));
```

```
values(50002,1725501,1002,525.85,100.00,to_date('15-FEB-20'));

insert into payment
values(50003,1723387,1003,100.00,525.85,to_date('12-MAR-20'));

insert into payment
values(50004,1725826,1004,600.00,25.85,to_date('10-JUN-20'));

insert into payment
values(50005,172345,1005,00.00,625.85,to_date(''));

insert into payment
values(50006,1725531,1006,250.85,375.00,to_date('16-MAY-20'));

insert into payment
values(50007,1325505,1007,1600.85,200.00,to_date('02-FEB-20'));

insert into payment
 values(50008,1725506,1008,150.00,475.85,to_date('09-JAN-20'));

insert into payment
values(50009,1225511,1009,650.85,1150.00,to_date('18-MAY-20'));

insert into payment
values(50010,181601,1010,00,625.85,to_date(''));

insert into payment
values(50011,171601,1011,625.85,00.00,to_date('19-APR-20'));

insert into payment
values(50012,171602,1012,625.85,00.00,to_date('23-JUN-20'));

insert into payment
values(50013,121661,1013,1800.85,00.00,to_date('16-FEB-20'));

insert into payment
values(50014,171662,1014,525.85,100.00,to_date('02-MAR-20'));

insert into payment
values(50015,171607,1015,625.85,00.00,to_date('12-MAY-20'));
```

```
insert into payment
values(50016,173601,1016,1800.85,00.00,to_date('22-FEB-20'));

insert into payment
values(50017,183601,1017,225.00,400.85,to_date('29-APR-20'));

insert into payment
values(50018,173552,1018,600.00,25.85,to_date('02-FEB-20'));

insert into payment
values(50019,1731662,1019,1700.85,100.00,to_date('10-FEB-20'));
insert into payment
values(50020,1733601,1020,800.00,1000.85,to_date('21-JAN-20'));

insert into payment
values(50021,113601,1021,700.85,1100.00,to_date('13-JAN-20'));

insert into payment
values(50022,163601,1022,00.00,1800.85,to_date(''));

insert into payment
values(50023,1735601,1023,550.00,1250.85,to_date('04-FEB-20'));

insert into payment
values(50024,1631601,1024,625.85,00.00,to_date('02-APR-20'));

insert into payment
values(50025,173111,1025,225.85,400.00,to_date('15-FEB-20'));

insert into payment
values(50026,1736022,1026,1100.00,700.85,to_date('11-JAN-20'));

insert into payment
values(50027,133611,1027,1800.85,00.00,to_date('02-FEB-20'));

insert into payment
values(50028,173001,1028,00.00,1800.85,to_date(''));

insert into payment
values(50029,153601,1029,100.85,1700.00,to_date('02-JAN-20'));

insert into payment
```

```
values(50030,183601,1030,1300.00,500.85,to_date('01-APR-20'));

insert into payment
values(50031,171001,1031,525.85,100.00,to_date('02-FEB-20'));

insert into payment
values(50032,122601,1032,1600.85,200.00,to_date('03-JAN-20'));

insert into payment
values(50033,1733001,1033,1600.85,200.00,to_date('11-MAR-20'));

insert into payment
values(50034,163611,1034,1500.85,300.00,to_date('12-APR-20'));

insert into payment
values(50035,182601,1035,625.85,00.00,to_date('02-FEB-20'));

insert into payment
values(50036,113603,1036,1725.85,75.00,to_date('03-FEB-20'));

insert into payment
values(50037,193601,1037,1605.85,195.00,to_date('22-FEB-20'));

insert into payment
values(50038,182662,1038,620.85,5.00,to_date('22-FEB-20'));

insert into payment
values(50039,183603,1039,625.85,00.00,to_date('02-MAY-20'));

insert into payment
values(50040,192602,1040,325.85,300.00,to_date('02-JUN-20'));

insert into payment
values(50041,102602,1041,1800.85,00.00,to_date('12-FEB-20'));

insert into payment
values(50042,112652,1042,1200.00,600.85,to_date('28-JUL-20'));

insert into payment
values(50043,182602,1043,575.00,50.85,to_date('09-JAN-20'));

insert into payment
```

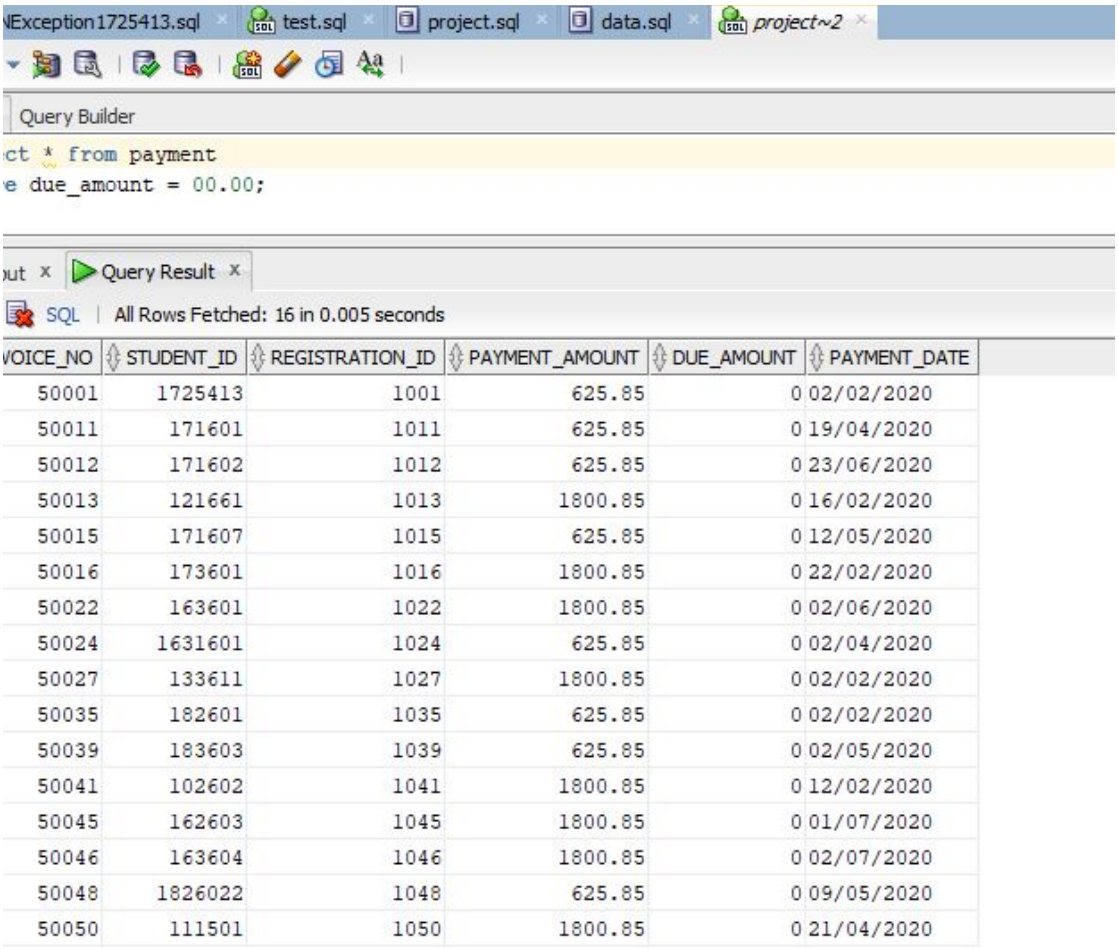
```
values(50044,192601,1044,525.85,100.00,to_date('12-MAY-20'));

insert into payment
values(50045,162603,1045,1800.85,00.00,to_date('01-JUL-20'));

insert into payment
values(50046,163604,1046,1800.85,00.00,to_date('02-JUL-20'));

insert into payment
values(50047,113502,1047,1650.85,150.00,to_date('27-MAR-20'));

insert into payment
values(50048,1826022,1048,625.85,00.00,to_date('09-MAY-20'));

insert into payment
values(50049,152603,1049,1500.00,300.85,to_date('10-FEB-20'));

insert into payment
values(50050,111501,1050,1800.85,00.00,to_date('21-APR-20'));

insert into payment
values(50051,192503,1051,249.00,376.85,to_date('18-APR-20'));
```

6. SQL Statements

6.1 Query

-- list all student those don't have any dues left

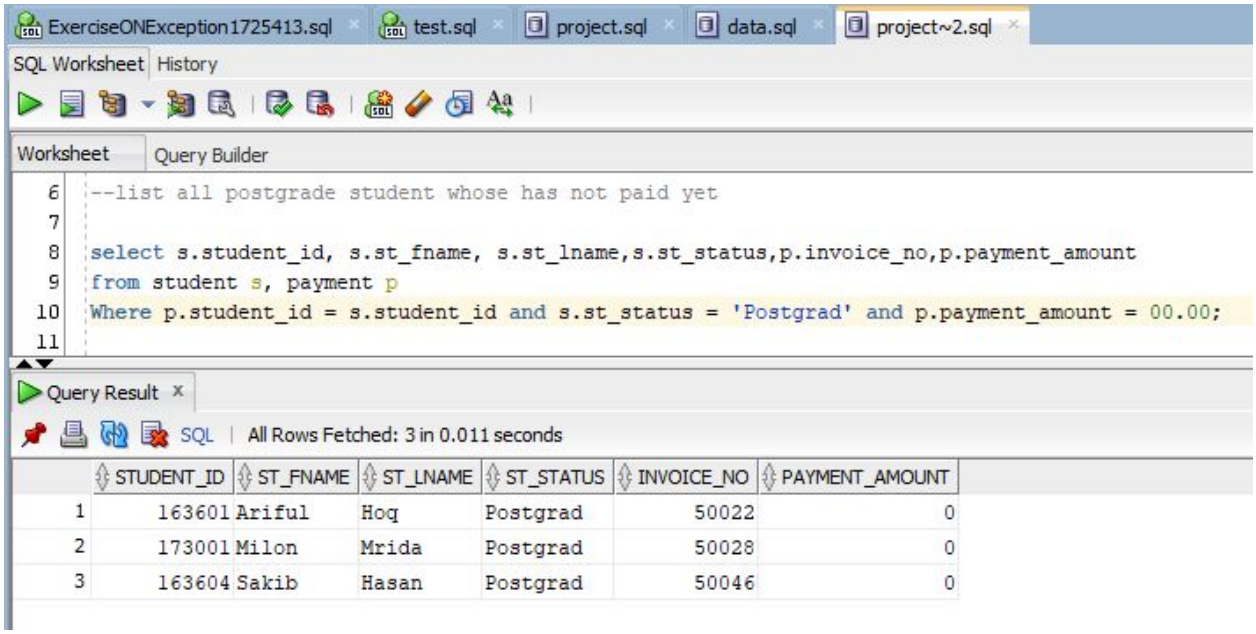
```
select * from payment
where due_amount = 00.00;
```



VOICE_NO	STUDENT_ID	REGISTRATION_ID	PAYMENT_AMOUNT	DUE_AMOUNT	PAYMENT_DATE
50001	1725413	1001	625.85	0	02/02/2020
50011	171601	1011	625.85	0	19/04/2020
50012	171602	1012	625.85	0	23/06/2020
50013	121661	1013	1800.85	0	16/02/2020
50015	171607	1015	625.85	0	12/05/2020
50016	173601	1016	1800.85	0	22/02/2020
50022	163601	1022	1800.85	0	02/06/2020
50024	1631601	1024	625.85	0	02/04/2020
50027	133611	1027	1800.85	0	02/02/2020
50035	182601	1035	625.85	0	02/02/2020
50039	183603	1039	625.85	0	02/05/2020
50041	102602	1041	1800.85	0	12/02/2020
50045	162603	1045	1800.85	0	01/07/2020
50046	163604	1046	1800.85	0	02/07/2020
50048	1826022	1048	625.85	0	09/05/2020
50050	111501	1050	1800.85	0	21/04/2020

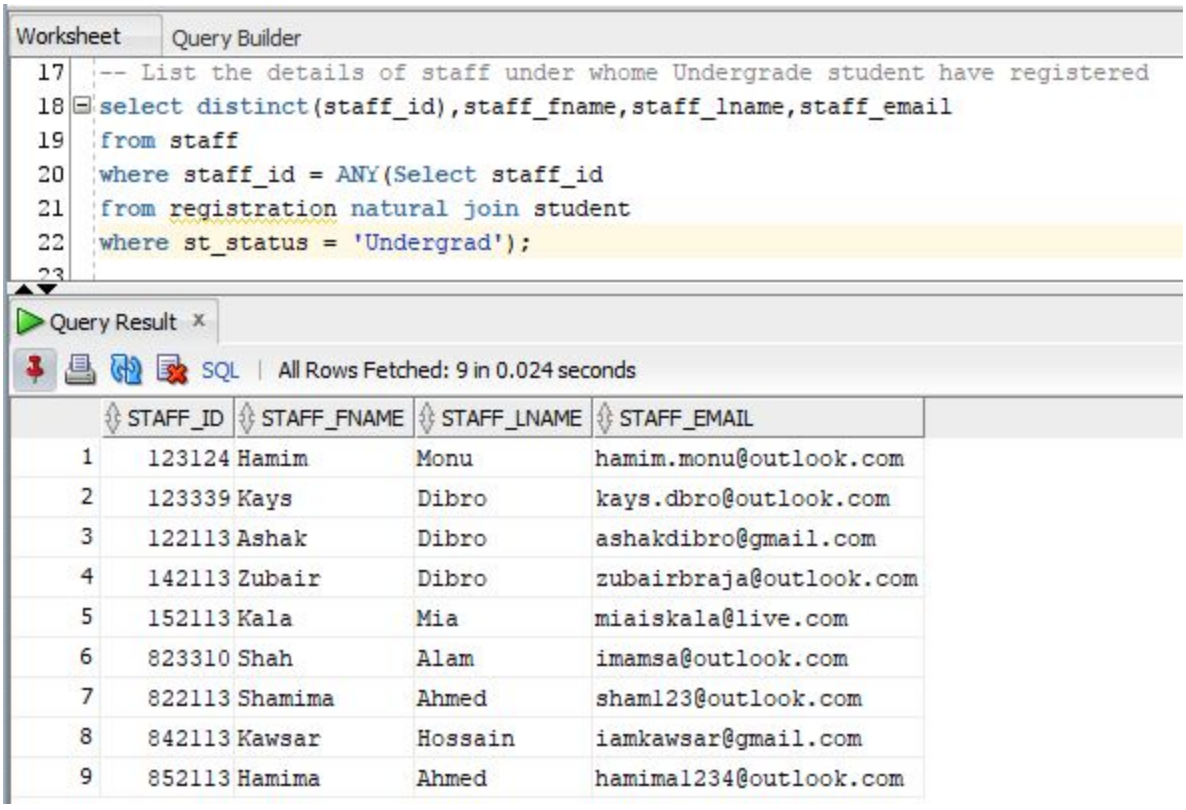
--list all postgraduate student who has not paid yet

```
select s.student_id, s.st_fname,
s.st_lname,s.st_status,p.invoice_no,p.payment_amount
from student s, payment p
Where p.student_id = s.student_id and s.st_status = 'Postgrad' and
p.payment_amount = 00.00;
```



-- List the details of staff under whom Undergraduate student have registered

```
select distinct(staff_id),staff_fname,staff_lname,staff_email
from staff
where staff_id = ANY(Select staff_id
from registration natural join student
where st_status = 'Undergrad');
```



6.2 Add

-- Insert into Student

```
insert into student
values(1814135,'adiba.m','Adiba','Mehrima','Undergrad',0183531502,'a.mehrima@
gmail.com');
```

```
11
12  -- Insert Stedent
13  insert into student values(1814135,'adiba.m','Adiba','Mehrima','undergrade',0183531502,'a.mehrima@gmail.com');
```

Script Output | Query Result | Task completed in 0.044 seconds

```
1 row inserted.
```

6.3 Modify

--Before Update Staff Table

```
select * from staff;
```

Worksheet | Query Builder

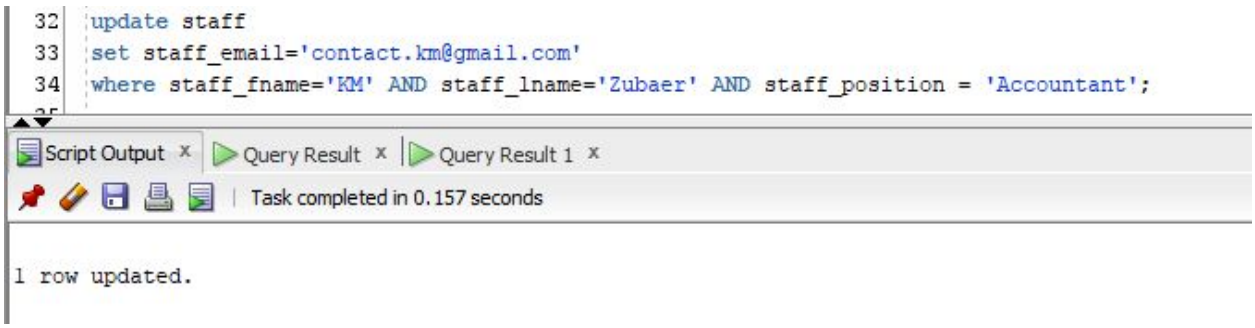
```
30  -- Before Update Staff Table
31  select * from staff;
```

Query Result 1 | SQL | All Rows Fetched: 30 in 0.008 seconds

	STAFF_ID	STAFF_FNAME	STAFF_LNAME	STAFF_DOB	STAFF_POSITION	STAFF_PHONE	STAFF_EMAIL	STAFF_SAL
6	823124	Azhar	Hossain	22/03/1978	Principal	9816755	azharmia@live.com	4800
7	823310	Shah	Alam	15/01/1980	Principal	3119995	imamsa@outlook.com	4500
8	822113	Shamima	Ahmed	17/08/1976	Principal	7116755	sham123@outlook.com	4800
9	842113	Kawsar	Hossain	25/05/1980	Principal	9996755	iamkawsar@gmail.com	5000
10	852113	Hamima	Ahmed	18/12/1982	Principal	1111155	hamima1234@outlook.com	4800
11	123125	Hakim	Kawla	26/02/1982	Accountant	3116555	kawlahakim@outlook.com	3200
12	123340	Afiq	Bhai	23/02/1984	Accountant	3446766	afiqmiao@outlook.com	3500
13	122114	Ela	Bhosak	11/08/1982	Accountant	5116555	ela4321@gmail.com	3500
14	142114	KM	Zubaer	08/03/1980	Accountant	5114755	khwajakm32@outlook.com	3000
15	152114	Dhola	Mia	21/05/1983	Accountant	5336755	dholabro21@live.com	3200
16	823125	Azan	Ahmed	16/04/1986	Accountant	5816755	ahmadvai@live.com	3500
17	823311	Abid	Labid	09/09/1989	Accountant	5119995	abidnamil@outlook.com	3700
18	822114	Lubna	Binte Zafar	14/01/1987	Accountant	5116755	lubna1223@outlook.com	3700
19	842114	Noor	Maisara	09/11/1982	Accountant	5996755	noormaisara@gmail.com	3500
20	852114	Noor	Liana	04/04/1988	Accountant	5111155	noorliana1234@outlook.com	3200
21	123127	Ashar	Alo	07/06/1989	Receptionist	6116555	aalo@outlook.com	3000
22	123342	Saleh	Uddin	18/07/1992	Receptionist	6446766	salehuddin33@outlook.com	2800

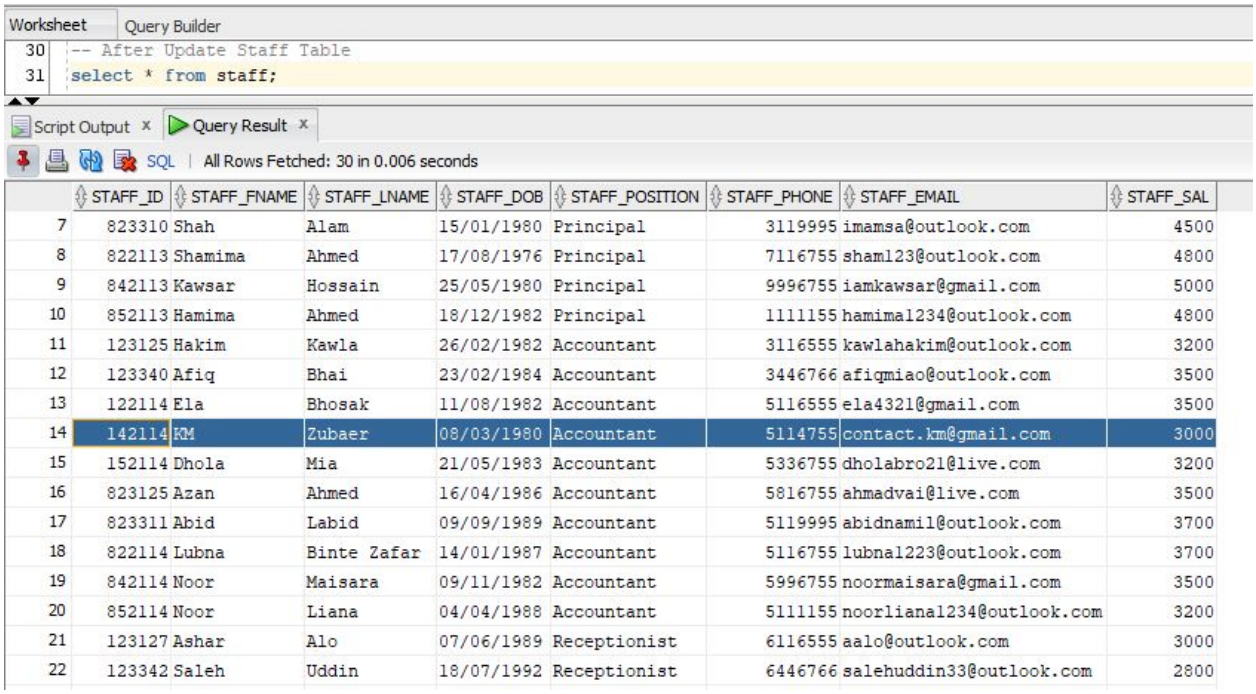
--Update specific column

```
update staff
set staff_email='contact.km@gmail.com'
where staff_fname='KM' AND staff_lname='Zubaer' AND staff_position =
'Accountant';
```



-- After Update Staff Table

```
select * from staff;
```

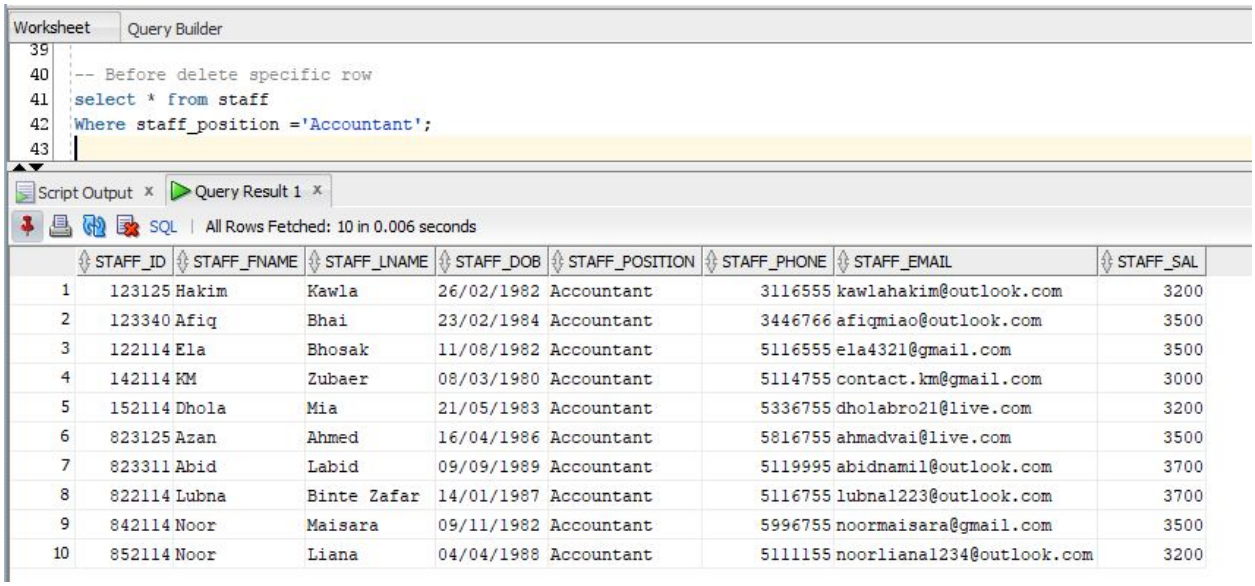


	STAFF_ID	STAFF_FNAME	STAFF_LNAME	STAFF_DOB	STAFF_POSITION	STAFF_PHONE	STAFF_EMAIL	STAFF_SAL
7	823310	Shah	Alam	15/01/1980	Principal	3119995	imamsa@outlook.com	4500
8	822113	Shamima	Ahmed	17/08/1976	Principal	7116755	sham123@outlook.com	4800
9	842113	Kawsar	Hossain	25/05/1980	Principal	9996755	iamkawsar@gmail.com	5000
10	852113	Hamima	Ahmed	18/12/1982	Principal	1111155	hamima1234@outlook.com	4800
11	123125	Hakim	Kawla	26/02/1982	Accountant	3116555	kawlahakim@outlook.com	3200
12	123340	Afiq	Bhai	23/02/1984	Accountant	3446766	afiqmiao@outlook.com	3500
13	122114	Ela	Bhosak	11/08/1982	Accountant	5116555	ela4321@gmail.com	3500
14	142114	KM	Zubaer	08/03/1980	Accountant	5114755	contact.km@gmail.com	3000
15	152114	Dhola	Mia	21/05/1983	Accountant	5336755	dholabro21@live.com	3200
16	823125	Azan	Ahmed	16/04/1986	Accountant	5816755	ahmadvai@live.com	3500
17	823311	Abid	Labid	09/09/1989	Accountant	5119995	abidnamil@outlook.com	3700
18	822114	Lubna	Binte Zafar	14/01/1987	Accountant	5116755	lubna1223@outlook.com	3700
19	842114	Noor	Maisara	09/11/1982	Accountant	5996755	noormaisara@gmail.com	3500
20	852114	Noor	Liana	04/04/1988	Accountant	5111155	noorliana1234@outlook.com	3200
21	123127	Ashar	Alo	07/06/1989	Receptionist	6116555	aalo@outlook.com	3000
22	123342	Saleh	Uddin	18/07/1992	Receptionist	6446766	salehuddin33@outlook.com	2800

6.4 Remove

-- Before delete specific row

```
select * from staff
Where staff_position ='Accountant';
```



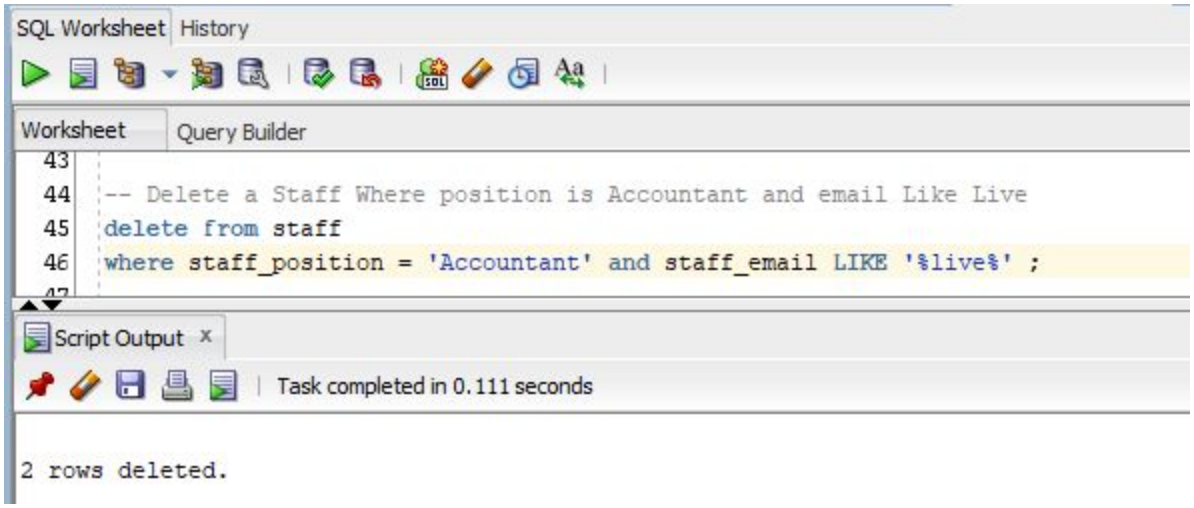
```
-- Before delete specific row
select * from staff
Where staff_position ='Accountant';
```

Script Output | Query Result 1 | SQL | All Rows Fetched: 10 in 0.006 seconds

	STAFF_ID	STAFF_FNAME	STAFF_LNAME	STAFF_DOB	STAFF_POSITION	STAFF_PHONE	STAFF_EMAIL	STAFF_SAL
1	123125	Hakim	Kawla	26/02/1982	Accountant	3116555	kawlahakim@outlook.com	3200
2	123340	Afiq	Bhai	23/02/1984	Accountant	3446766	afiqmiao@outlook.com	3500
3	122114	Ela	Bhosak	11/08/1982	Accountant	5116555	ela4321@gmail.com	3500
4	142114	KM	Zubaer	08/03/1980	Accountant	5114755	contact.km@gmail.com	3000
5	152114	Dhola	Mia	21/05/1983	Accountant	5336755	dholabro21@live.com	3200
6	823125	Azan	Ahmed	16/04/1986	Accountant	5816755	ahmadvai@live.com	3500
7	823311	Abid	Labid	09/09/1989	Accountant	5119995	abidnamil@outlook.com	3700
8	822114	Lubna	Binte Zafar	14/01/1987	Accountant	5116755	lubna1223@outlook.com	3700
9	842114	Noor	Maisara	09/11/1982	Accountant	5996755	noormaisara@gmail.com	3500
10	852114	Noor	Liana	04/04/1988	Accountant	5111155	noorliana1234@outlook.com	3200

-- Delete a Staff Where position is Accountant and email Like Live

```
delete from staff
where staff_position = 'Accountant' and staff_email LIKE '%live%' ;
```



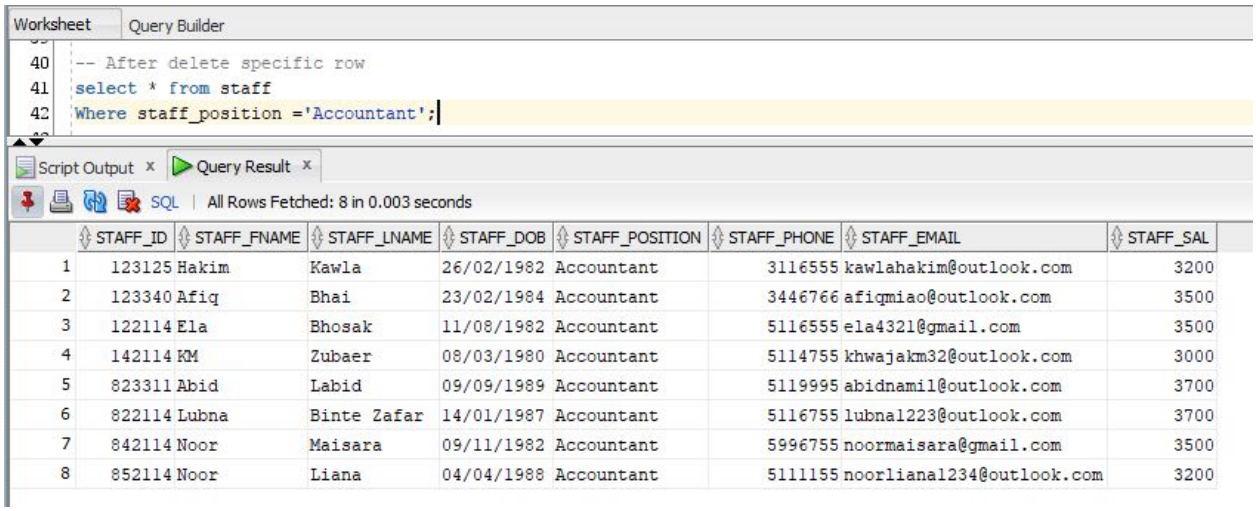
```
-- Delete a Staff Where position is Accountant and email Like Live
delete from staff
where staff_position = 'Accountant' and staff_email LIKE '%live%' ;
```

Script Output | Task completed in 0.111 seconds

```
2 rows deleted.
```

-- After delete specific row

```
select * from staff
Where staff_position ='Accountant';
```

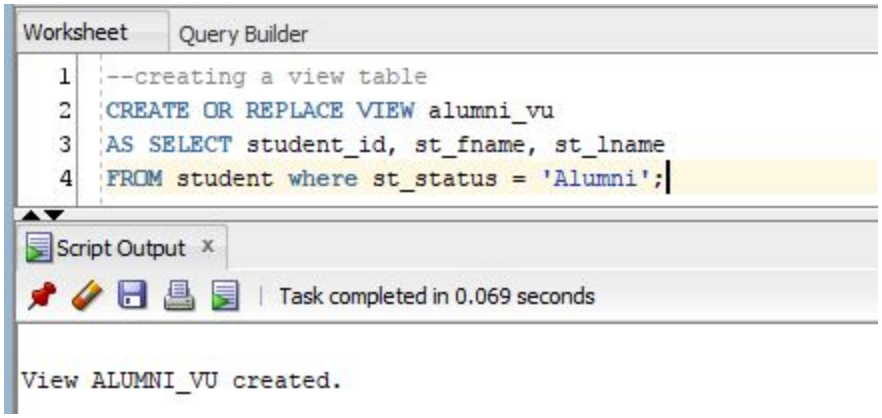


	STAFF_ID	STAFF_FNAME	STAFF_LNAME	STAFF_DOB	STAFF_POSITION	STAFF_PHONE	STAFF_EMAIL	STAFF_SAL
1	123125	Hakim	Kawla	26/02/1982	Accountant	3116555	kawlahakim@outlook.com	3200
2	123340	Afiq	Bhai	23/02/1984	Accountant	3446766	afiqmiao@outlook.com	3500
3	122114	Ela	Bhosak	11/08/1982	Accountant	5116555	ela4321@gmail.com	3500
4	142114	KM	Zubaer	08/03/1980	Accountant	5114755	khwajakm32@outlook.com	3000
5	823311	Abid	Labid	09/09/1989	Accountant	5119995	abidnamil@outlook.com	3700
6	822114	Lubna	Binte Zafar	14/01/1987	Accountant	5116755	lubnal223@outlook.com	3700
7	842114	Noor	Maisara	09/11/1982	Accountant	5996755	noormaisara@gmail.com	3500
8	852114	Noor	Liana	04/04/1988	Accountant	5111155	noorliana1234@outlook.com	3200

6.5 Creating a view

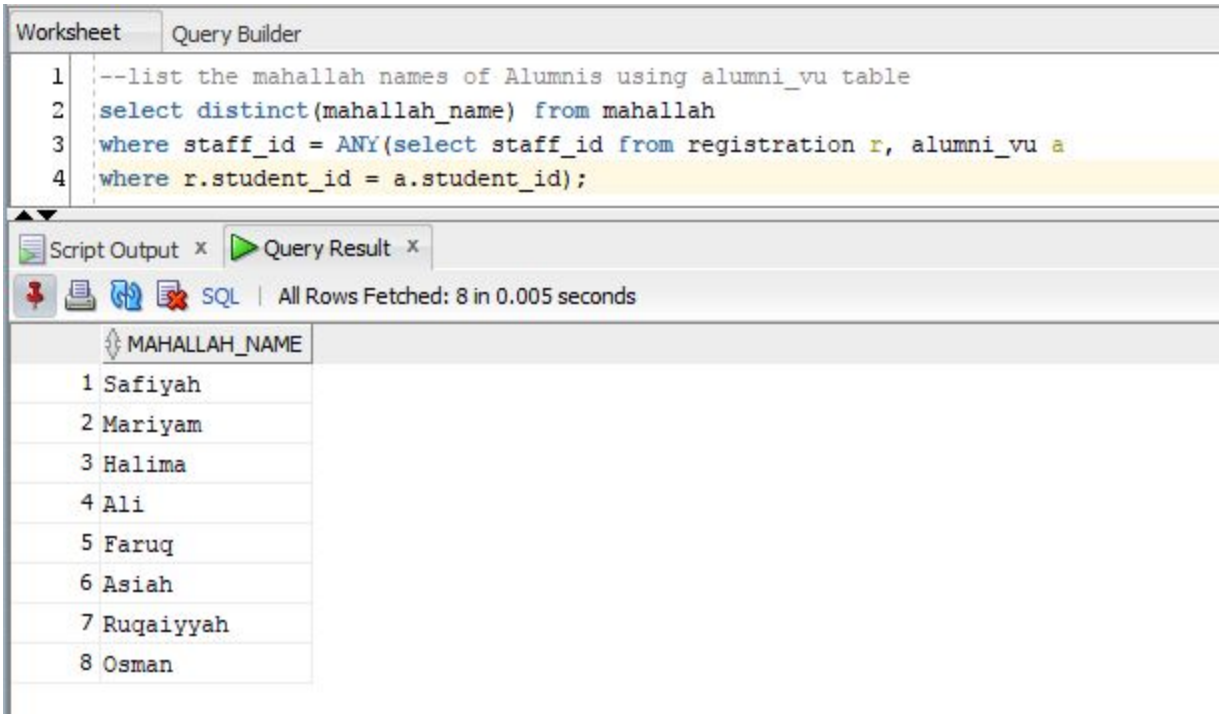
--Create a view table

```
CREATE OR REPLACE VIEW alumni_vu
AS SELECT student_id, st_fname, st_lname
FROM student where st_status = 'Alumni';
```



--list the mahallah names of Alumnis using alumni_vu table

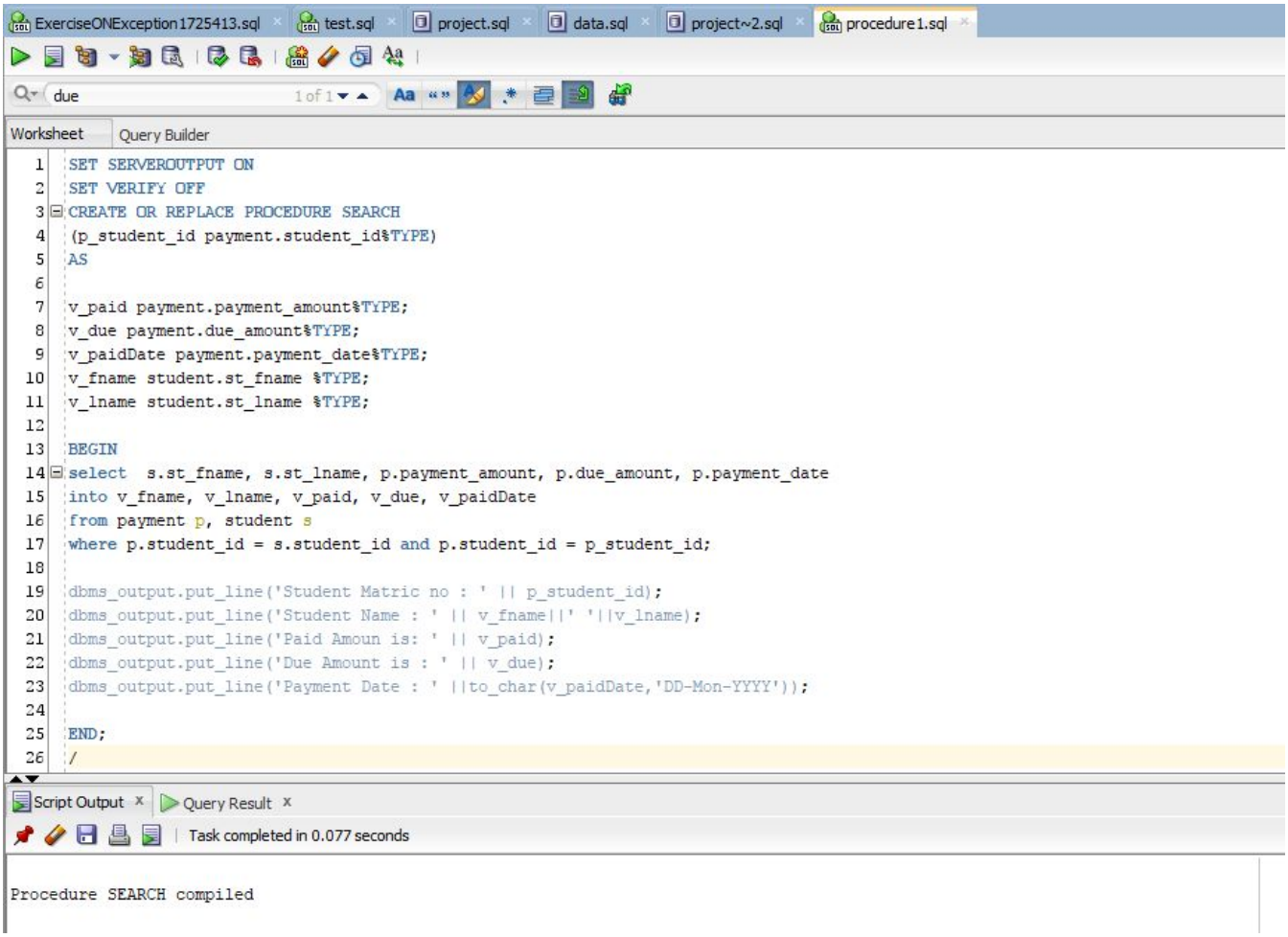
```
select distinct(mahallah_name) from mahallah
where staff_id = ANY(select staff_id from registration r, alumni_vu a
where r.student_id = a.student_id);
```



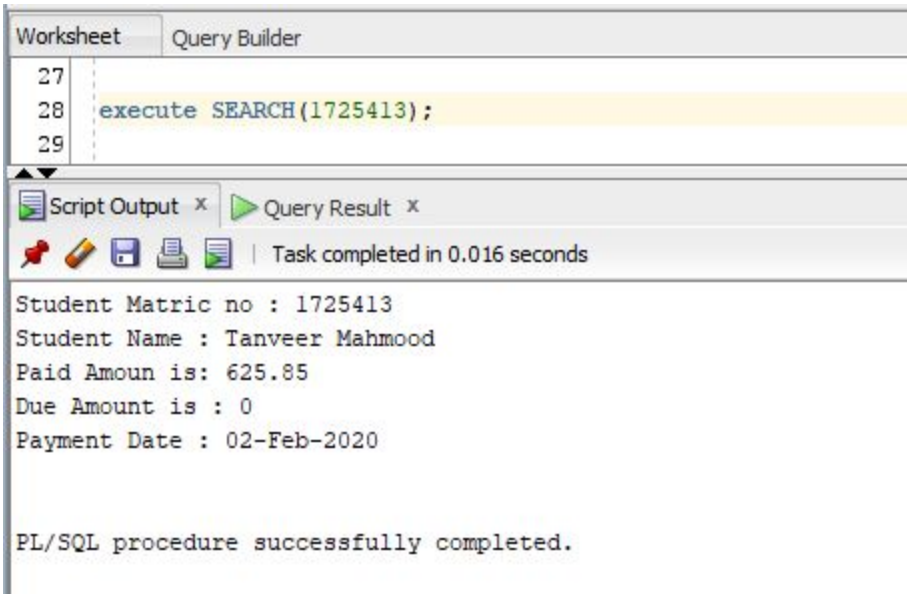
7. Procedure

7.1 If Admin wants to see the specific student Name, Paid amount, Due Amount and their payment date by using only Student id, This is the procedure where admin put student's student id, The system will show all the details about him/her

```
SET SERVEROUTPUT ON
SET VERIFY OFF
CREATE OR REPLACE PROCEDURE SEARCH
(p_student_id payment.student_id%TYPE)
AS

v_paid payment.payment_amount%TYPE;
v_due payment.due_amount%TYPE;
v_paidDate payment.payment_date%TYPE;
v_fname student.st_fname %TYPE;
v_lname student.st_lname %TYPE;

BEGIN
select  s.st_fname, s.st_lname, p.payment_amount, p.due_amount, p.payment_date
into v_fname, v_lname, v_paid, v_due, v_paidDate
from payment p, student s
where p.student_id = s.student_id and p.student_id = p_student_id;

dbms_output.put_line('Student Matric no : ' || p_student_id);
dbms_output.put_line('Student Name : ' || v_fname||' '||v_lname);
dbms_output.put_line('Paid Ammoun is: ' || v_paid);
dbms_output.put_line('Due Amount is : ' || v_due);
dbms_output.put_line('Payment Date : ' ||to_char(v_paidDate,'DD-Mon-YYYY'));

END;
/
```



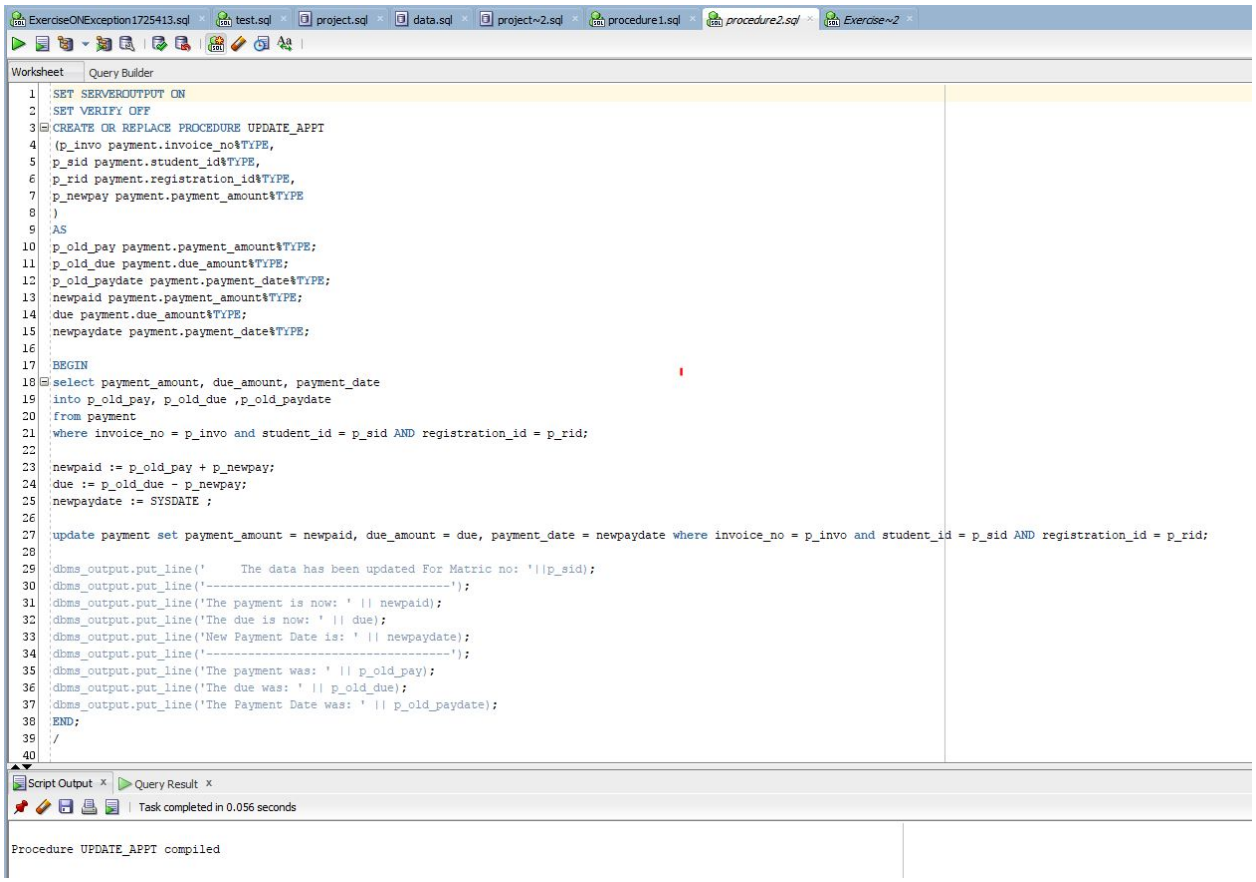
execute SEARCH(1725413);



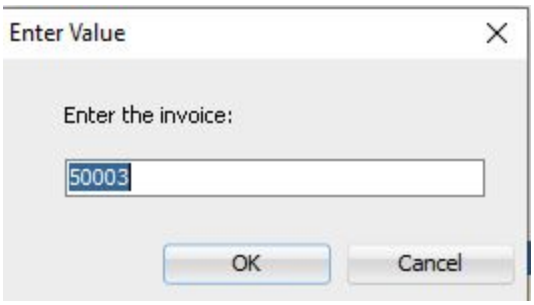
7.2 Procedure: For updating a payment amount Admin can give the student id , registration id and payment amount, The system will automatically update paid amount, due amount and payment date. This is the procedure for updating student's information.

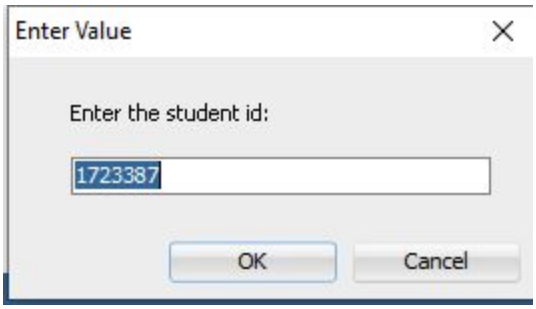
```
SET SERVEROUTPUT ON
SET VERIFY OFF
CREATE OR REPLACE PROCEDURE UPDATE_APPT
(p_invo payment.invoice_no%TYPE,
p_sid payment.student_id%TYPE,
p_rid payment.registration_id%TYPE,
p_newpay payment.payment_amount%TYPE
)
AS
p_old_pay payment.payment_amount%TYPE;
p_old_due payment.due_amount%TYPE;
p_old_paydate payment.payment_date%TYPE;
newpaid payment.payment_amount%TYPE;
due payment.due_amount%TYPE;
newpaydate payment.payment_date%TYPE;

BEGIN
select payment_amount, due_amount, payment_date
into p_old_pay, p_old_due ,p_old_paydate
from payment
where invoice_no = p_invo and student_id = p_sid AND registration_id = p_rid;

newpaid := p_old_pay + p_newpay;
due := p_old_due - p_newpay;
newpaydate := SYSDATE ;

update payment set payment_amount = newpaid, due_amount = due, payment_date = newpaydate where invoice_no = p_invo and student_id = p_sid AND registration_id = p_rid;

dbms_output.put_line('     The data has been updated For Matric no: '||p_sid);
dbms_output.put_line('-----------------------------------');
dbms_output.put_line('The payment is now: ' || newpaid);
dbms_output.put_line('The due is now: ' || due);
dbms_output.put_line('New Payment Date is: ' || newpaydate);
dbms_output.put_line('-----------------------------------');
dbms_output.put_line('The payment was: ' || p_old_pay);
dbms_output.put_line('The due was: ' || p_old_due);
dbms_output.put_line('The Payment Date was: ' || p_old_paydate);
```

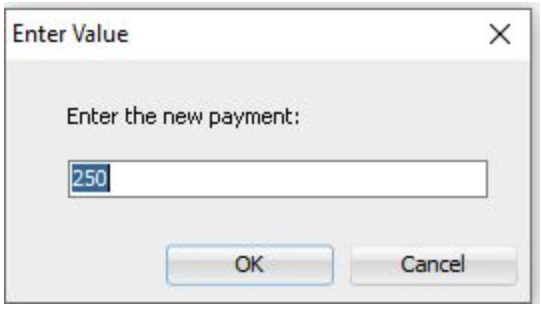
END;
/



ACCEPT p_invo PROMPT 'Enter the invoice: '
ACCEPT p_sid PROMPT 'Enter the student id: '
ACCEPT p_rid PROMPT 'Enter the reg id: '
ACCEPT p_newpay PROMPT 'Enter the new payment: '
BEGIN
UPDATE_APPT ('&p_invo', '&p_sid', '&p_rid', '&p_newpay');
END;
/








```
41  ACCEPT p_invo PROMPT 'Enter the invoice: '
42  ACCEPT p_sid PROMPT 'Enter the student id: '
43  ACCEPT p_rid PROMPT 'Enter the reg id: '
44  ACCEPT p_newpay PROMPT 'Enter the new payment: '
45  BEGIN
46  UPDATE_APPT ('&p_invo', '&p_sid', '&p_rid', '&p_newpay');
47  END;
48  /
```

Script Output x

Task completed in 106.2 seconds

```
The data has been updated For Matric no: 1723387
----------------------------------
The payment is now: 500
The due is now: 125.85
New Payment Date is: 21/07/2020
----------------------------------
The payment was: 250
The due was: 375.85
The Payment Date was: 10/03/2020


PL/SQL procedure successfully completed.
```

7.3 Procedure : User can Enter specific Mahallah Name,Then the program will show all the student from given Mahallah

```
SET SERVEROUTPUT ON
SET VERIFY OFF

accept m_name PROMPT 'Enter the Mahallah name: '


DECLARE
   v_stno student.student_id%type;
   v_user student.st_username%type;
   v_stfname student.st_fname%type;
   v_stlname student.st_lname%type;
   v_status student.st_status%type;
   v_mob student.st_phone%type;
   v_email student.st_email%type;

   CURSOR st_cursor IS
   select * from student
   where student_id = ANY(select distinct(student_id) from registration where staff_id = (select
distinct(staff_id) from mahallah where mahallah_name = '&m_name'));
   v_mname mahallah.mahallah_name%type;
BEGIN

   DBMS_OUTPUT.PUT_LINE('ALL THE STUDENT FROM GIVEN MAHALLAH ');
   DBMS_OUTPUT.PUT_LINE('-----------------------------------------------------------------');
   OPEN st_cursor;
   LOOP
   FETCH st_cursor INTO v_stno, v_user, v_stfname, v_stlname, v_status, v_mob, v_email;
   EXIT WHEN st_cursor%NOTFOUND;


   DBMS_OUTPUT.PUT_LINE(st_cursor%ROWCOUNT||'. '||v_stno||', '|| v_stfname ||', '||
v_stlname ||', '|| v_status ||', '||v_email||', '|| v_mob);
   END LOOP;
   CLOSE st_cursor;

END ;
/
```

Script Output | Task completed in 3.909 seconds

```
ALL THE STUDENT FROM GIVEN MAHALLAH
--------------------------------------------------------------------
1. 1725501, Raisul, Islam, Undergrad, raisulislam48@gmail.com, 182605517
2. 1723387, Maskur, Sayed, Undergrad, maskurbillah@gmail.com, 182289849
3. 172345, Noman, Mir, Undergrad, noman.iium@gmail.com, 182605517
4. 1725413, Tanveer, Mahmood, Undergrad, tanveer.iium@gmail.com, 183536506


PL/SQL procedure successfully completed.
```

Script Output | Task completed in 74.684 seconds

```
ALL THE STUDENT FROM GIVEN MAHALLAH
--------------------------------------------------------------------
1. 1725826, Rafia, Tasnim, Undergrad, protiksha777@gmail.com, 1116295637
2. 163611, Tripty, Afroz, Postgrad, tripty.iium@gmail.com, 182605717
3. 122601, Xinia, Mahmud, Alumni, xinia.iium@gmail.com, 188605517
4. 1733001, Jarin, Mahmud, Postgrad, jarin.iium@gmail.com, 182685517
5. 193601, Afiya, Khan, Postgrad, afiya.iium@gmail.com, 182605500
6. 182601, Farhana, Hoq, Undergrad, farhana.iium@gmail.com, 182605507


PL/SQL procedure successfully completed.
```

8. Function :

8.1 Function : Get Mahallah name and contact info of a specific student.

```
SET SERVEROUTPUT ON
SET VERIFY OFF


CREATE OR REPLACE FUNCTION getMahallah
(s_id IN student.student_id%TYPE)
RETURN varchar2
IS
m_name mahallah.mahallah_name%TYPE;
BEGIN
select distinct(mahallah_name) into m_name from mahallah
where staff_id = ALL(select staff_id from registration where student_id = s_id);
RETURN(m_name);
END getMahallah;
/

ACCEPT v_id PROMPT ' Enter the student ID (M/N): '
DECLARE
v_name mahallah.mahallah_name%TYPE;
v_phone mahallah.mahallah_phone%TYPE;
v_stname VARCHAR2(40);
BEGIN
select concat(concat(st_fname,' '), st_lname) into v_stname from student where student_id =
&v_id;
select distinct(mahallah_name),mahallah_phone into v_name, v_phone
from mahallah
where mahallah_name = getMahallah(&v_id);
DBMS_OUTPUT.put_line (v_stname||' lives in Mahallah '||v_name);
DBMS_OUTPUT.put_line ('Mahallah '||v_name||' contact number: '||v_phone);
END;
/
```

```
Function GETMAHALLAH compiled

Tanveer Mahmood lives in Mahallah Zubair
Mahallah Zubair contact number: 3195482


PL/SQL procedure successfully completed.
```

8.2 Function : Students who have due amount and who haven't paid since 01/03/2020,

Condition applied:

1. **100 RM compound to Students who have paid from 20 Feb to 1 Mar in 2020**
2. **150 RM compound to Students who have paid from 9 Feb to 19 Mar in 2020**
3. **300 RM compound to Students who paid before 9 feb**

```
select * from payment
where payment_date < '01-03-20';
```

Script Output | Query Result

SQL | All Rows Fetched: 24 in 0.004 seconds

	INVOICE_NO	STUDENT_ID	REGISTRATION_ID	PAYMENT_AMOUNT	DUE_AMOUNT	PAYMENT_DATE
1	50001	1725413	1001	625.85	0	02/02/2020
2	50002	1725501	1002	525.85	100	15/02/2020
3	50007	1325505	1007	1600.85	200	02/02/2020
4	50008	1725506	1008	150	475.85	09/01/2020
5	50013	121661	1013	1800.85	0	16/02/2020
6	50016	173601	1016	1800.85	0	22/02/2020
7	50018	173552	1018	600	25.85	02/02/2020
8	50019	1731662	1019	1700.85	100	10/02/2020
9	50020	1733601	1020	800	1000.85	21/01/2020
10	50021	113601	1021	700.85	1100	13/01/2020

```
create or replace function compound_rate(p_date payment.payment_date%TYPE) return date
IS

BEGIN
   IF p_date < to_date('01-mar-2020', 'dd-mon-yyyy') THEN
      IF (p_date >= to_date('20-feb-2020', 'dd-mon-yyyy')) AND (p_date <
to_date('01-mar-2020', 'dd-mon-yyyy')) THEN
         update payment
         set due_amount = due_amount + 100
         where payment_date = p_date AND due_amount != 0;
      ELSIF (p_date >= to_date('09-feb-2020', 'dd-mon-yyyy')) AND (p_date <=
to_date('19-feb-2020', 'dd-mon-yyyy')) THEN
         update payment
         set due_amount = due_amount + 150
         where payment_date = p_date AND due_amount != 0;
      ELSE
         update payment
         set due_amount = due_amount + 300
         where payment_date = p_date AND due_amount != 0;
```

```
        END IF;
    ELSE
        return(p_date);
    END IF;
    return(p_date);
END;
/

DECLARE
    v_date payment.payment_date%TYPE;
    CURSOR p_cursor IS
    SELECT DISTINCT(payment_date) FROM payment;

BEGIN
  OPEN p_cursor;
    LOOP
      FETCH p_cursor INTO v_date;
      v_date := compound_rate(v_date);
    EXIT WHEN p_cursor%notfound;
    END LOOP;
  CLOSE p_cursor;
END ;
/
```

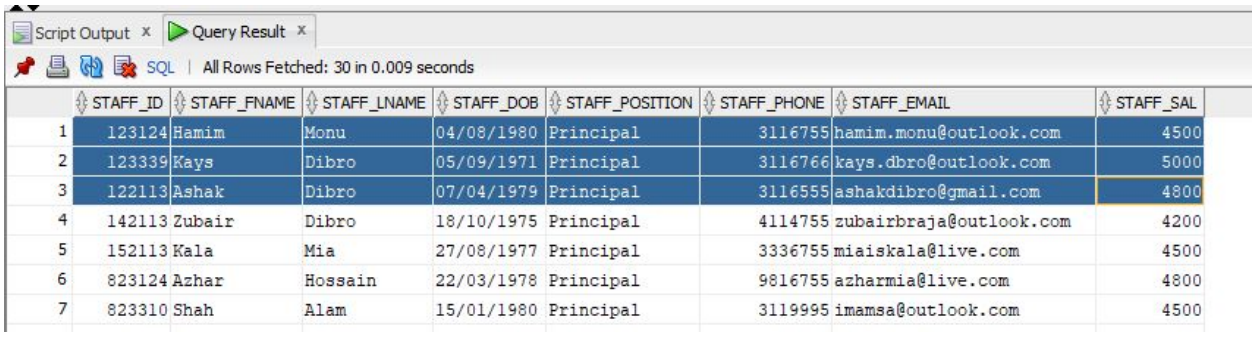
Script Output | Query Result

SQL | All Rows Fetched: 24 in 0.004 seconds

	INVOICE_NO	STUDENT_ID	REGISTRATION_ID	PAYMENT_AMOUNT	DUE_AMOUNT	PAYMENT_DATE
1	50001	1725413	1001	625.85	0	02/02/2020
2	50002	1725501	1002	525.85	250	15/02/2020
3	50007	1325505	1007	1600.85	500	02/02/2020
4	50008	1725506	1008	150	775.85	09/01/2020
5	50013	121661	1013	1800.85	0	16/02/2020
6	50016	173601	1016	1800.85	0	22/02/2020
7	50018	173552	1018	600	325.85	02/02/2020
8	50019	1731662	1019	1700.85	250	10/02/2020
9	50020	1733601	1020	800	1300.85	21/01/2020

8.3 Function : Add an increment of 5% to the salary for those who are between 40-50 years old and 10% to the salary for those who are more than 50 years old

```
        select * from staff;
```



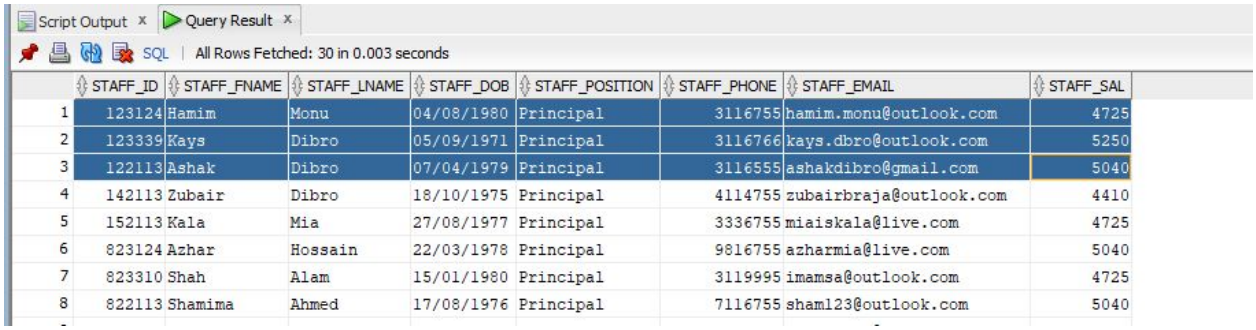
Script Output | Query Result

SQL | All Rows Fetched: 30 in 0.009 seconds

	STAFF_ID	STAFF_FNAME	STAFF_LNAME	STAFF_DOB	STAFF_POSITION	STAFF_PHONE	STAFF_EMAIL	STAFF_SAL
1	123124	Hamim	Monu	04/08/1980	Principal	3116755	hamim.monu@outlook.com	4500
2	123339	Kays	Dibro	05/09/1971	Principal	3116766	kays.dbro@outlook.com	5000
3	122113	Ashak	Dibro	07/04/1979	Principal	3116555	ashakdibro@gmail.com	4800
4	142113	Zubair	Dibro	18/10/1975	Principal	4114755	zubairbraja@outlook.com	4200
5	152113	Kala	Mia	27/08/1977	Principal	3336755	miaiskala@live.com	4500
6	823124	Azhar	Hossain	22/03/1978	Principal	9816755	azharmia@live.com	4800
7	823310	Shah	Alam	15/01/1980	Principal	3119995	imamsa@outlook.com	4500

```
create or replace function bonus(stf_id staff.staff_id%TYPE) return number
IS
v_dob staff.staff_dob%TYPE;
begin
   select staff_dob into v_dob from staff where staff_id = stf_id;

   IF ROUND((SYSDATE - v_dob)/365.25, 0) >= 40 AND ROUND((SYSDATE -
v_dob)/365.25, 0) <= 50 THEN
      update staff
      set staff_sal = staff_sal + (staff_sal*0.05)
      where staff_id = stf_id AND staff_dob = v_dob;
   ELSIF ROUND((SYSDATE - v_dob)/365.25, 0) >= 51 THEN
      update staff
      set staff_sal = staff_sal + (staff_sal*0.10)
      where staff_id = stf_id AND staff_dob = v_dob;
   END IF;

   return(stf_id);
end;
/

DECLARE
   v_id staff.staff_id%TYPE;
   CURSOR s_cursor IS
   SELECT staff_id FROM staff;

   v_counter number := 0;
BEGIN
  OPEN s_cursor;
   LOOP
      FETCH s_cursor INTO v_id;
      v_id := bonus(v_id);
      EXIT WHEN s_cursor%notfound;
```

```
   END LOOP;
  CLOSE s_cursor;
END ;
/
```



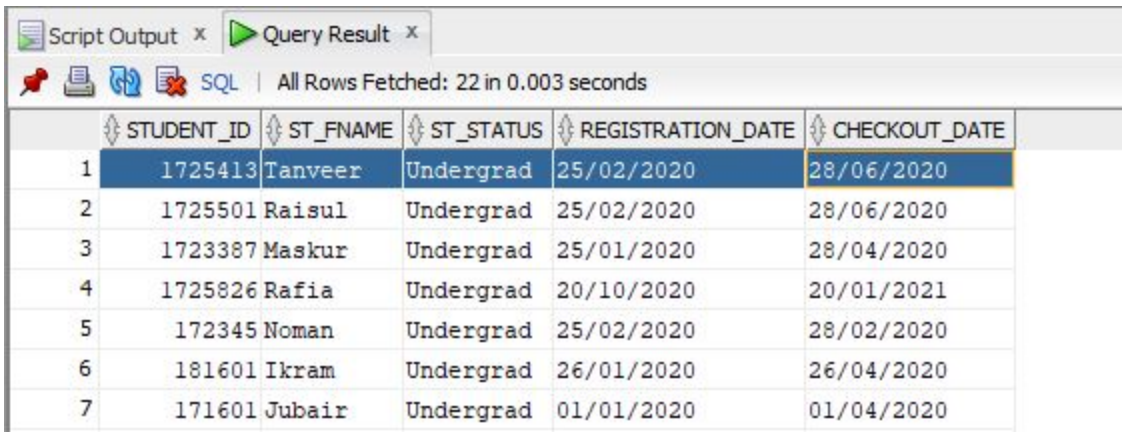
Script Output | Query Result

SQL | All Rows Fetched: 30 in 0.003 seconds

	STAFF_ID	STAFF_FNAME	STAFF_LNAME	STAFF_DOB	STAFF_POSITION	STAFF_PHONE	STAFF_EMAIL	STAFF_SAL
1	123124	Hamim	Monu	04/08/1980	Principal	3116755	hamim.monu@outlook.com	4725
2	123339	Kays	Dibro	05/09/1971	Principal	3116766	kays.dbro@outlook.com	5250
3	122113	Ashak	Dibro	07/04/1979	Principal	3116555	ashakdibro@gmail.com	5040
4	142113	Zubair	Dibro	18/10/1975	Principal	4114755	zubairbraja@outlook.com	4410
5	152113	Kala	Mia	27/08/1977	Principal	3336755	miaiskala@live.com	4725
6	823124	Azhar	Hossain	22/03/1978	Principal	9816755	azharmia@live.com	5040
7	823310	Shah	Alam	15/01/1980	Principal	3119995	imamsa@outlook.com	4725
8	822113	Shamima	Ahmed	17/08/1976	Principal	7116755	sham123@outlook.com	5040

8.4 Function : The university admin has decided to extend the undergraduate students' mahallah checkout date or booking date of a specific Mahallah, due to covid-19 issue. Change the mahallah reservation time of only undergraduate students of a specific Mahallah for a specific time using a function.

```
select s.student_id, s.st_fname, s.st_status,  r.registration_date, r.checkout_date
from student s,registration r
where s.st_status = 'Undergrad' and s.student_id = r.student_id;
```

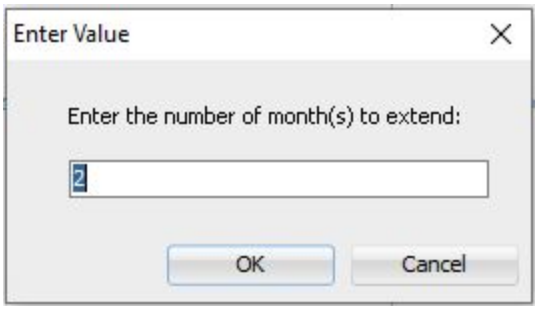


Script Output | Query Result

SQL | All Rows Fetched: 22 in 0.003 seconds

	STUDENT_ID	ST_FNAME	ST_STATUS	REGISTRATION_DATE	CHECKOUT_DATE
1	1725413	Tanveer	Undergrad	25/02/2020	28/06/2020
2	1725501	Raisul	Undergrad	25/02/2020	28/06/2020
3	1723387	Maskur	Undergrad	25/01/2020	28/04/2020
4	1725826	Rafia	Undergrad	20/10/2020	20/01/2021
5	172345	Noman	Undergrad	25/02/2020	28/02/2020
6	181601	Ikram	Undergrad	26/01/2020	26/04/2020
7	171601	Jubair	Undergrad	01/01/2020	01/04/2020

```
create or replace function extend_booking(m_name IN mahallah.mahallah_name%TYPE,
mon IN number) return number
IS
   v_count number;
begin
   select count(student_id) into v_count from student
   where student_id = ANY(select distinct(registration.student_id) from mahallah join
registration on registration.staff_id = mahallah.staff_id
   where mahallah_name = m_name) AND st_status = 'Undergrad';

   Update registration
   SET checkout_date = ADD_MONTHS(checkout_date, mon)
   where student_id = ANY(select student_id from student
   where student_id = ANY(select distinct(registration.student_id) from mahallah join
registration on registration.staff_id = mahallah.staff_id
   where mahallah_name = m_name) AND st_status = 'Undergrad');

   return(v_count);
end;
/

set serveroutput on
set verify off

accept p1 PROMPT 'Enter the Mahallah name for booking extension: '
accept p2 PROMPT 'Enter the number of month(s) to extend: '

DECLARE
   counter number;
   vm_name mahallah.mahallah_name%TYPE := '&p1';
   v_mon number := &p2;

BEGIN
   counter := extend_booking(vm_name,v_mon);
   dbms_output.put_line('Mahallah booking date has been extended for '||v_mon||' month(s) to
'||counter ||'undergraduate student(s) due to Covid-19 issue');
   dbms_output.put_line('You may check this on your checkout date info. Thank You!');
   dbms_output.put_line('From Mahallah ' ||vm_name);

END ;
/
```




```
Function EXTEND_BOOKING compiled

Mahallah booking date has been extended for 2 month(s) to 5undergraduate student(s) due to Covid-19 issue
You may check this on your checkout date info. Thank You!
From Mahallah Zubair
```

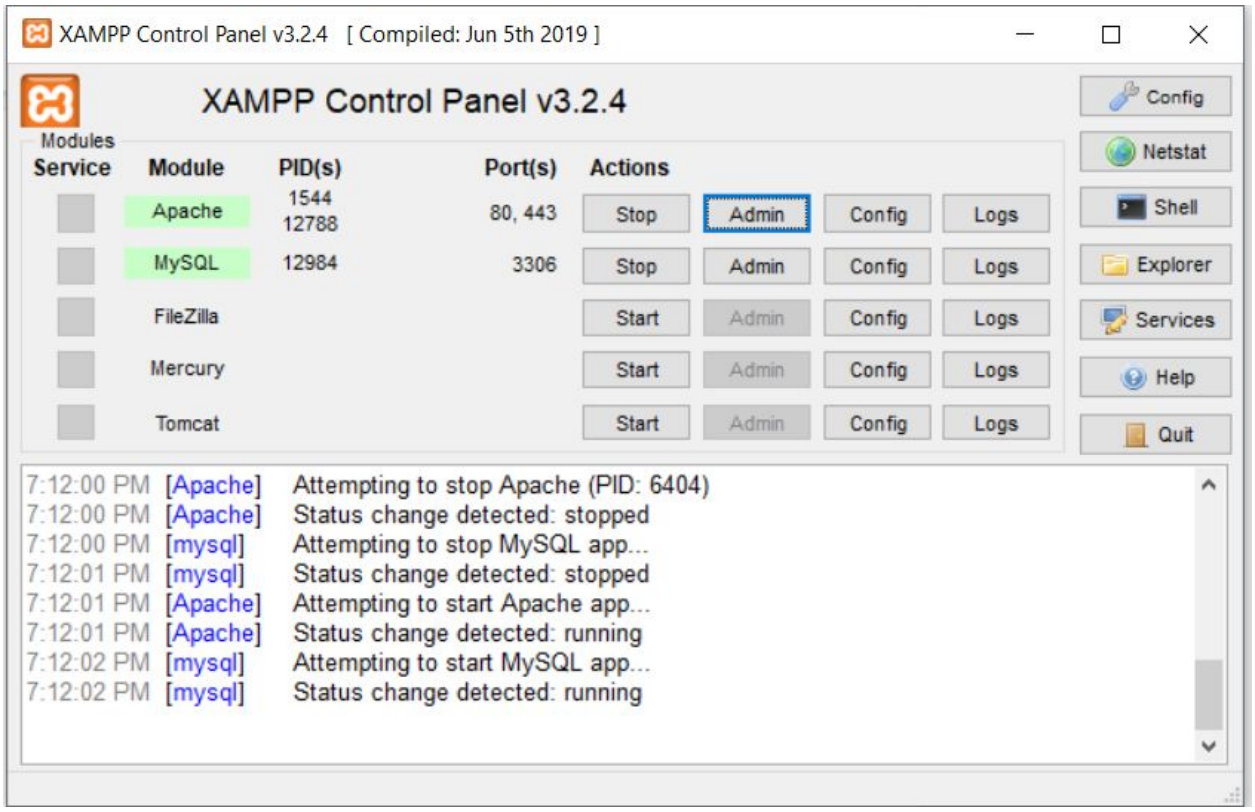
Script Output | Query Result

SQL | All Rows Fetched: 22 in 0.003 seconds

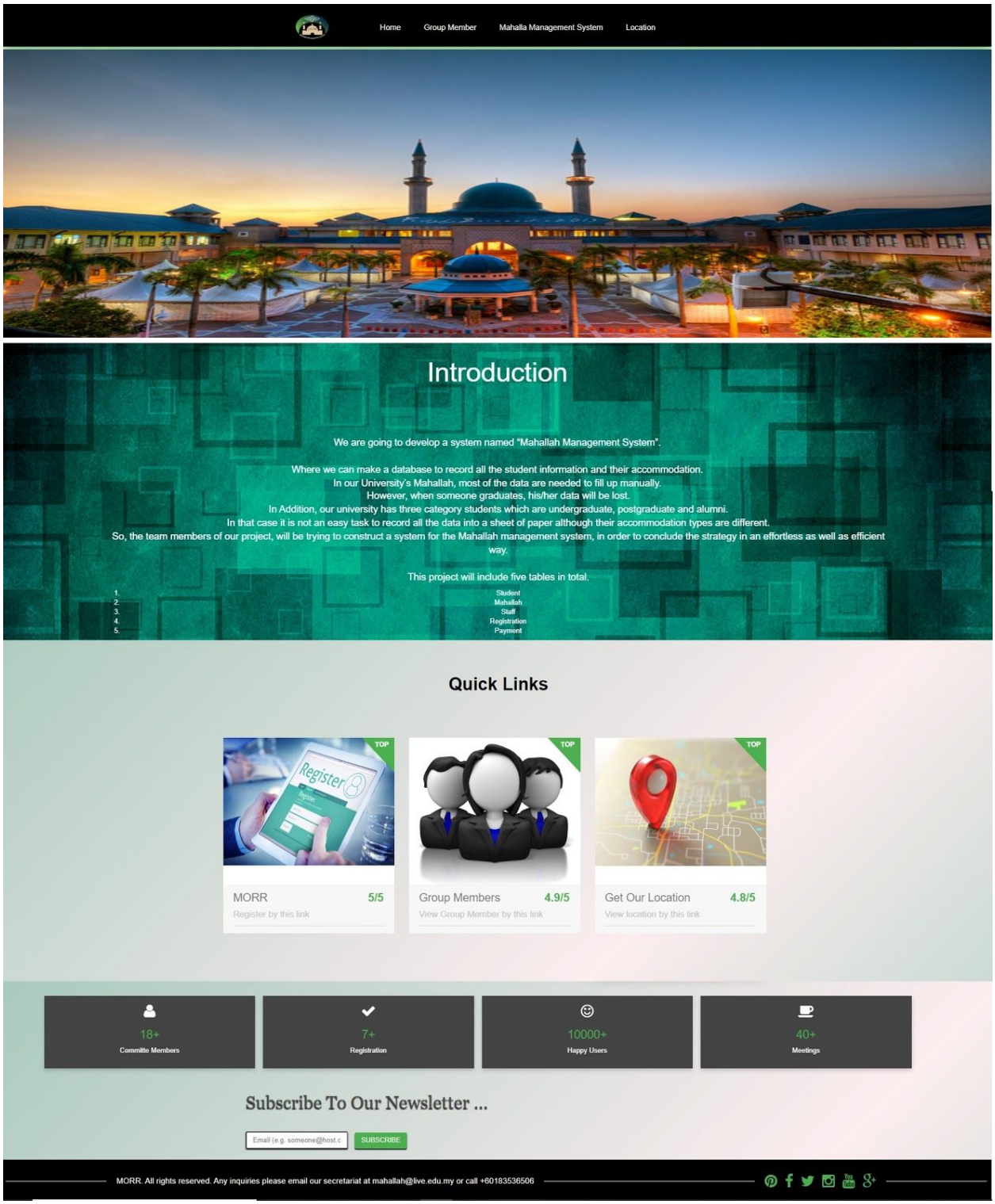
	STUDENT_ID	ST_FNAME	ST_STATUS	REGISTRATION_DATE	CHECKOUT_DATE
1	1725413	Tanveer	Undergrad	25/02/2020	28/08/2020
2	1725501	Raisul	Undergrad	25/02/2020	28/08/2020
3	1723387	Maskur	Undergrad	25/01/2020	28/06/2020
4	1725826	Rafia	Undergrad	20/10/2020	20/03/2021
5	172345	Noman	Undergrad	25/02/2020	28/04/2020
6	181601	Ikram	Undergrad	26/01/2020	26/04/2020
7	171601	Jubair	Undergrad	01/01/2020	01/04/2020

9. web application

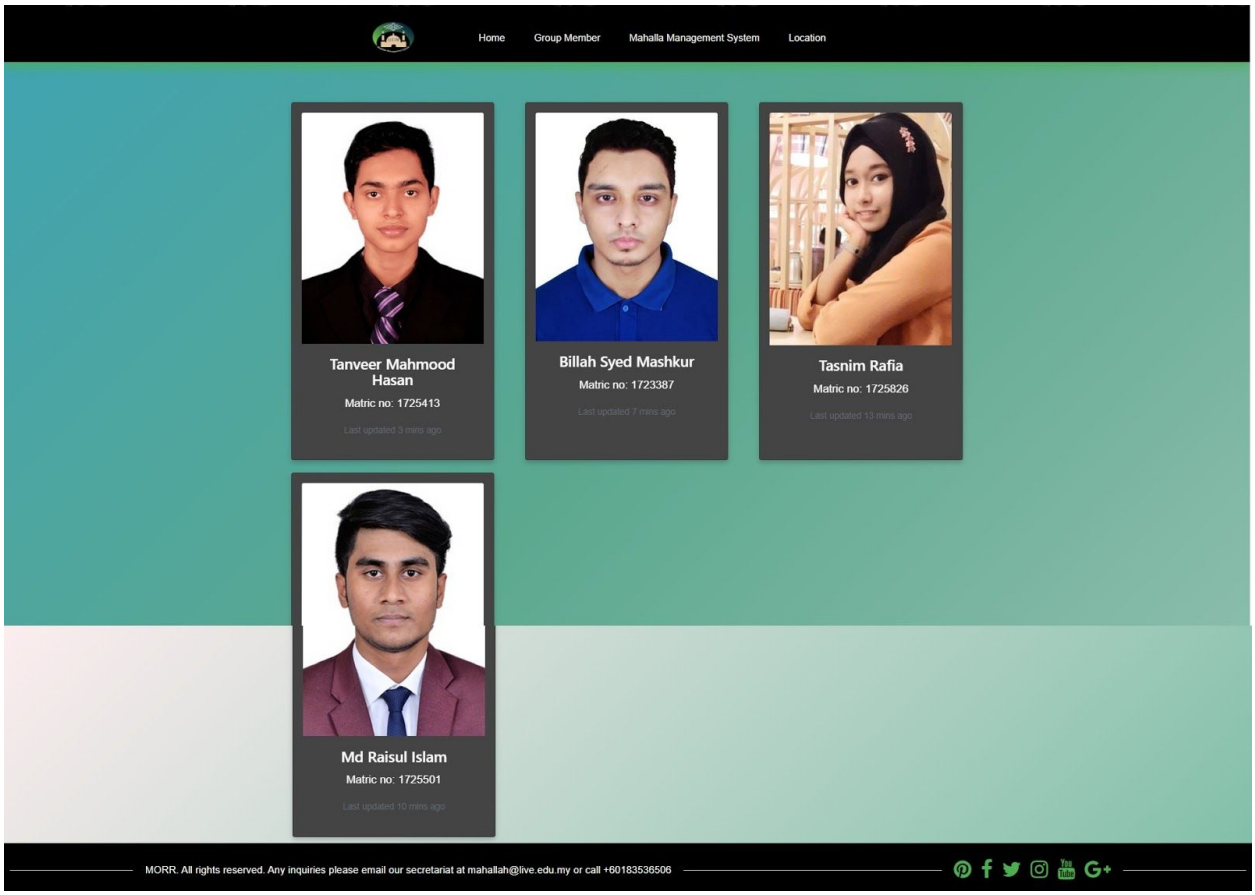
9.1 Connect to PHP using MySQL



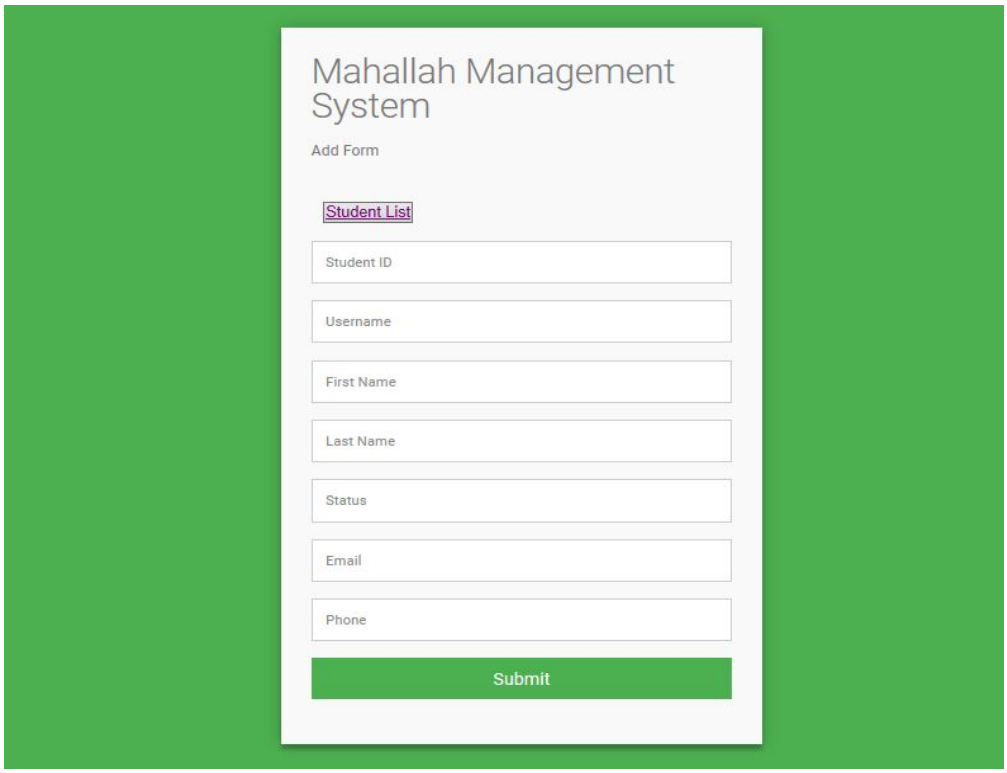
9.2 Home Page


Home
Group Member
Mahalla Management System
Location
Introduction
We are going to develop a system named "Mahallah Management System".
Where we can make a database to record all the student information and their accommodation.
In our University's Mahallah, most of the data are needed to fill up manually.
However, when someone graduates, his/her data will be lost.
In Addition, our university has three category students which are undergraduate, postgraduate and alumni.
In that case it is not an easy task to record all the data into a sheet of paper although their accommodation types are different.
So, the team members of our project, will be trying to construct a system for the Mahallah management system, in order to conclude the strategy in an effortless as well as efficient way.
This project will include five tables in total.
1. Student
2. Mahallah
3. Staff
4. Registration
5. Payment
Quick Links
TOP
MORR 5/5
Register by this link
Group Members 4.9/5
View Group Member by this link
Get Our Location 4.8/5
View location by this link
18+
Committe Members
7+
Registration
10000+
Happy Users
40+
Meetings
Subscribe To Our Newsletter ...
Email (e.g. someone@host.c
SUBSCRIBE
MORR. All rights reserved. Any inquiries please email our secretariat at mahallah@live.edu.my or call +60183536506

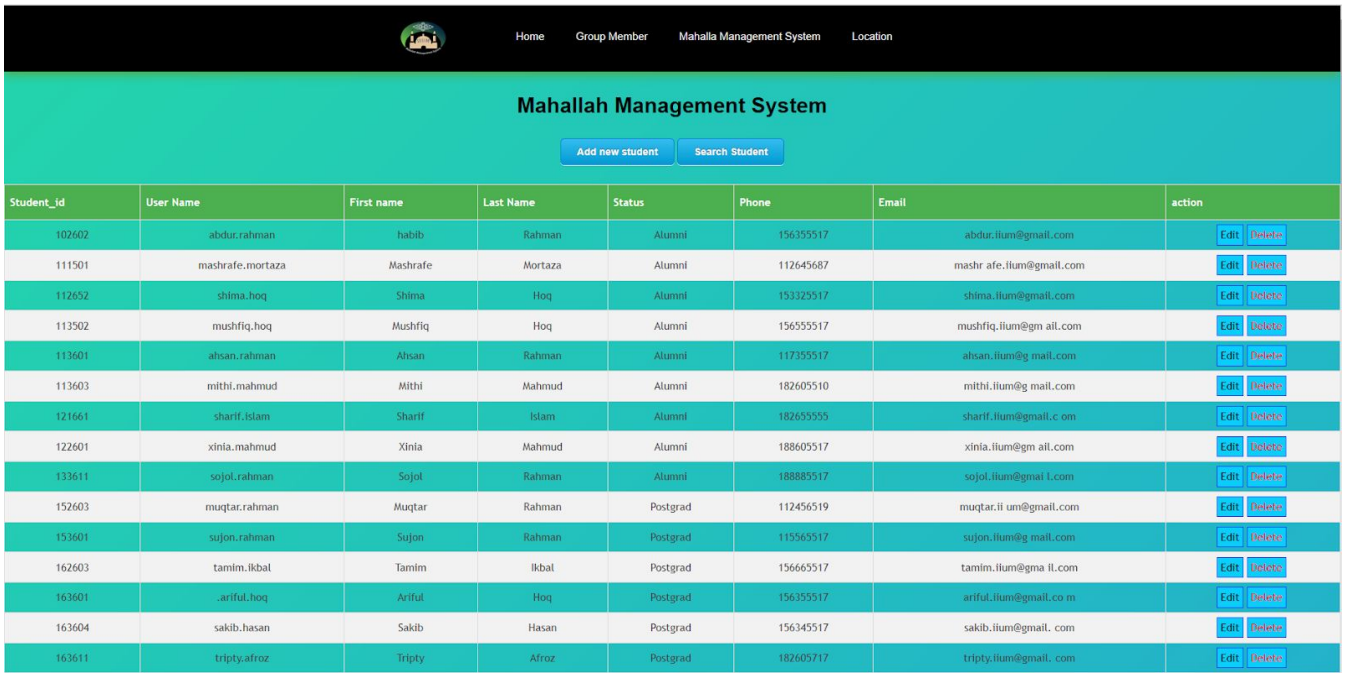
9.3 Group Members Page



9.4 Insert Data in Web Application



9.5 View Table Data



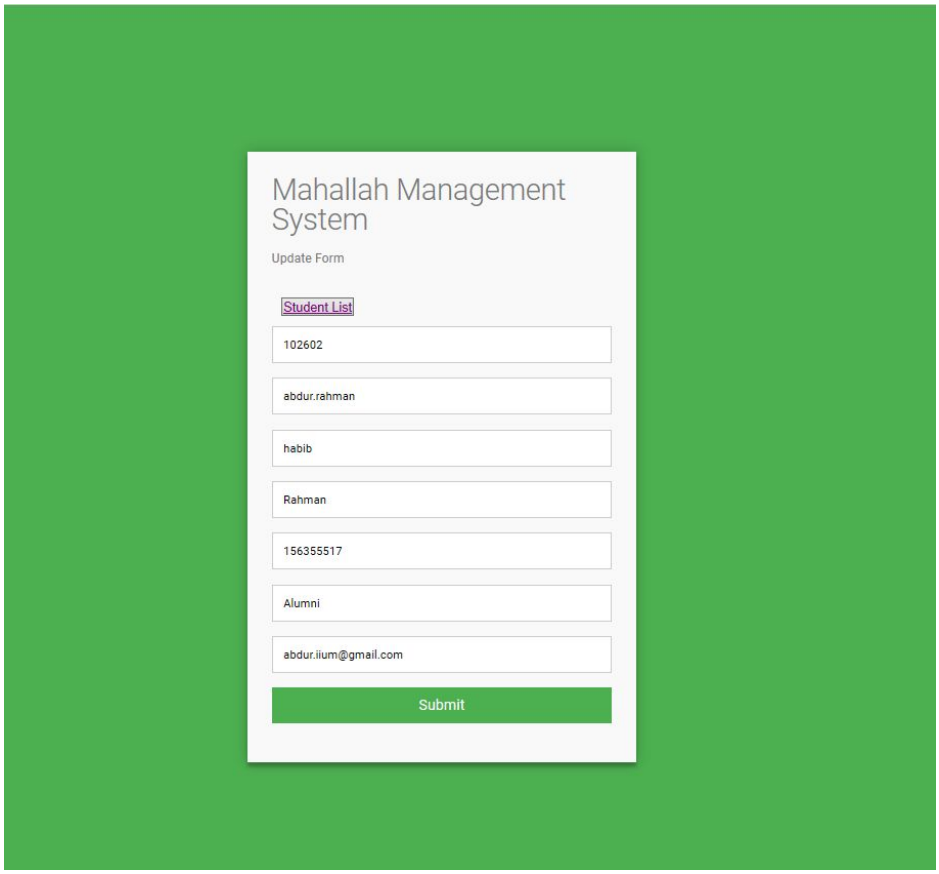
Home Group Member Mahalla Management System Location

Mahallah Management System

Add new student | Search Student

Student_id	User Name	First name	Last Name	Status	Phone	Email	action
102602	abdur.rahman	habib	Rahman	Alumni	156355517	abdur.iium@gmail.com	Edit Delete
111501	mashrafe.mortaza	Mashrafe	Mortaza	Alumni	112645687	mashr afe.ium@gmail.com	Edit Delete
112652	shima.hoq	Shima	Hoq	Alumni	153325517	shima.ium@gmail.com	Edit Delete
113502	mushfiq.hoq	Mushfiq	Hoq	Alumni	156555517	mushfiq.ium@gm ail.com	Edit Delete
113601	ahsan.rahman	Ahsan	Rahman	Alumni	117355517	ahsan.ium@g mail.com	Edit Delete
113603	mithi.mahmud	Mithi	Mahmud	Alumni	182605510	mithi.ium@g mail.com	Edit Delete
121661	sharif.islam	Sharif	Islam	Alumni	182655555	sharif.ium@gmail.c om	Edit Delete
122601	xinia.mahmud	Xinia	Mahmud	Alumni	188605517	xinia.ium@gm ail.com	Edit Delete
133611	sojol.rahman	Sojol	Rahman	Alumni	188885517	sojol.ium@gmai l.com	Edit Delete
152603	muqtar.rahman	Muqtar	Rahman	Postgrad	112456519	muqtar.ii um@gmail.com	Edit Delete
153601	sujon.rahman	Sujon	Rahman	Postgrad	115565517	sujon.ium@g mail.com	Edit Delete
162603	tamim.ikbal	Tamim	Ikbal	Postgrad	156665517	tamim.ium@gma il.com	Edit Delete
163601	.ariful.hoq	Ariful	Hoq	Postgrad	156355517	ariful.ium@gmail.co m	Edit Delete
163604	sakib.hasan	Sakib	Hasan	Postgrad	156345517	sakib.ium@gmail. com	Edit Delete
163611	tripty.afroz	Tripty	Afroz	Postgrad	182605717	tripty.ium@gmail. com	Edit Delete

9.6 Update Data in web Application



Mahallah Management System

Update Form

Student List

102602

abdur.rahman

habib

Rahman

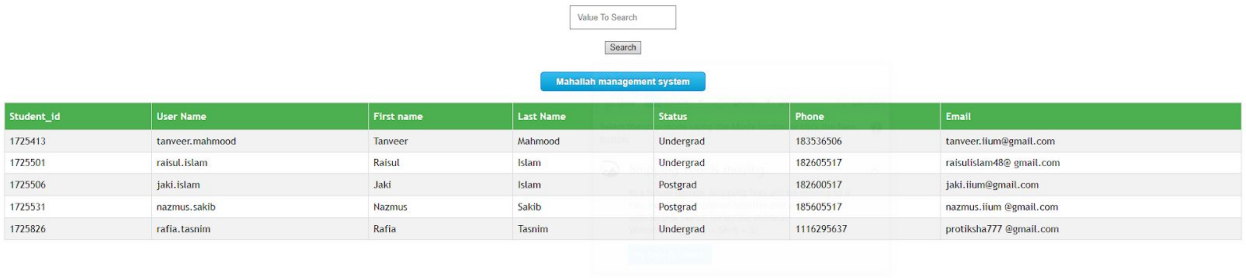
156355517

Alumni

abdur.ium@gmail.com

Submit

9.7 Search Data

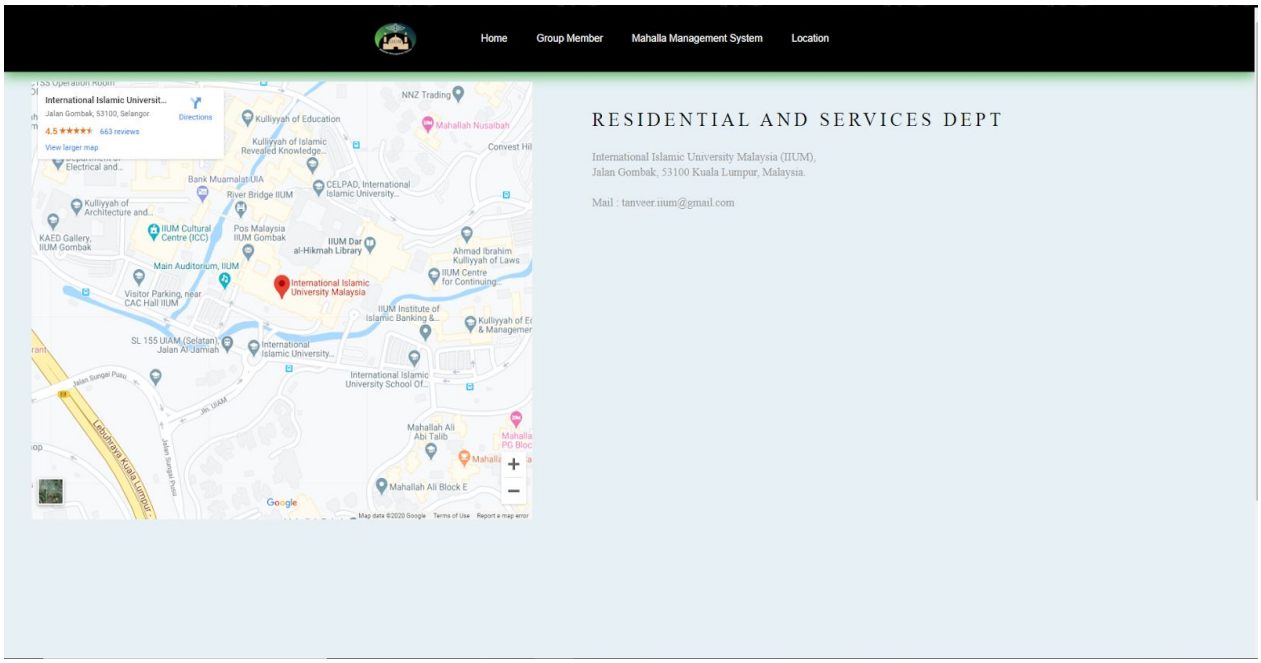


9.8 Delete Data

Before delete:

After delete:

9.9 Location Page



9.10 View Code: https://tanveermahmoodhasan.github.io/DatabaseFinal/

or Download Code: https://github.com/tanveermahmoodhasan/DatabaseFinal.git

10. Conclusion:

Our motto was to cut the effort down and make the total mahallah registration process easier. After finishing preparing the system, we have been determined to sort all the difficulties out that we faced while making the project. We hope to launch the system in the future in order to help people. So far we have been done with our goals that we set previously at the very beginning. Using our system, mahallah authority will be able to add a new student record, to delete the student passed the university, to find specific data in the earliest way online. Also they can find the direction through the map connected to the system. We are happy together to prepare the project until the great destination.

Reference:

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5. https://www.w3schools.com/html/html_editors.asp