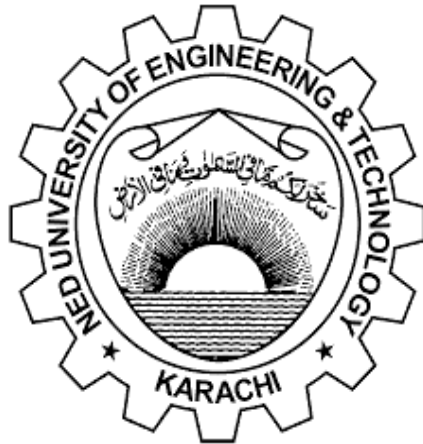


# **NED University of Engineering & Technology**



## **Database Management Systems CS-257**

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### **Members:**

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# Report

## **Introduction:**

Database systems are made to handle large collection of information. Management of data involves both redefining structures for storage of information and providing mechanisms that can do the manipulation of those stored information. Hence, the database system must ensure the safety of the information stored, despite sometimes system do crashes or attempts of unauthorized access are still possible.

Our team has scrapped some premade databases on github and similar sites, we found a bunch of database system similar to the one that we are going to make, the core idea of those are similar to the one we are going to make, the core idea being the management of the tutors/teacher but none of them are made on oracle, and we are sure that none of them include the functionality of students having the access of database.

## **Problem description:**

Presently there are a number of academies providing home and online tutors by communicating over phone. The current system where at first tutor gets himself registered and then he's passed on the varying information of the user which in this case is the student.

On the other hand, when a student looks for a tutor, what he does is that he too calls and likewise provides his information requiring time of employees to answer the phone, extra man-force and thus is more work consuming than necessary.

## **Aims and Objectives:**

The aim of this project is to create a database to centrally handle the information of all the students and teachers registered in the database, and to provide access to this information with an easy to use web-based interface that can be accessed by any device with basic html rendering capabilities

Moreover, this is going to become a bridge between the two ends of a problem. . Our management system is supposed to bridge this gap, the students are going to

enter their data (location, subject, class, budget) and with that data they are going to get matched with tutors of their choice.

### **Fact Finding:**

1. How to find a student using student's name?
2. How to find number of students in each class?
3. How to locate the town of teacher?
4. How can we find the number of teachers from each town?
5. How to find each teacher's class and their teaching subjects?
6. How to find the number of teachers available for each subject?
7. How to find student email and teacher email included in an invite?
8. How to find the number of invites received by each subject?
9. How to find the name of each user i.e. teacher and then students?
10. What are the total number of teachers in our system?
11. What are the total number of teachers in our system?
12. What classes our system covers?
13. What towns our system is covering?
14. How are we going to find the email of all users of the system?
15. What are the total number of invites in our system?

### **Scenario:**

The two possible users of our system are the students and teachers.

**Logging in as student:** When the student gets himself registered and logs in, a number of tasks could be performed by him. After adding his credentials (location, subject/s, class) he may search for the appropriate teachers and send invites to them.

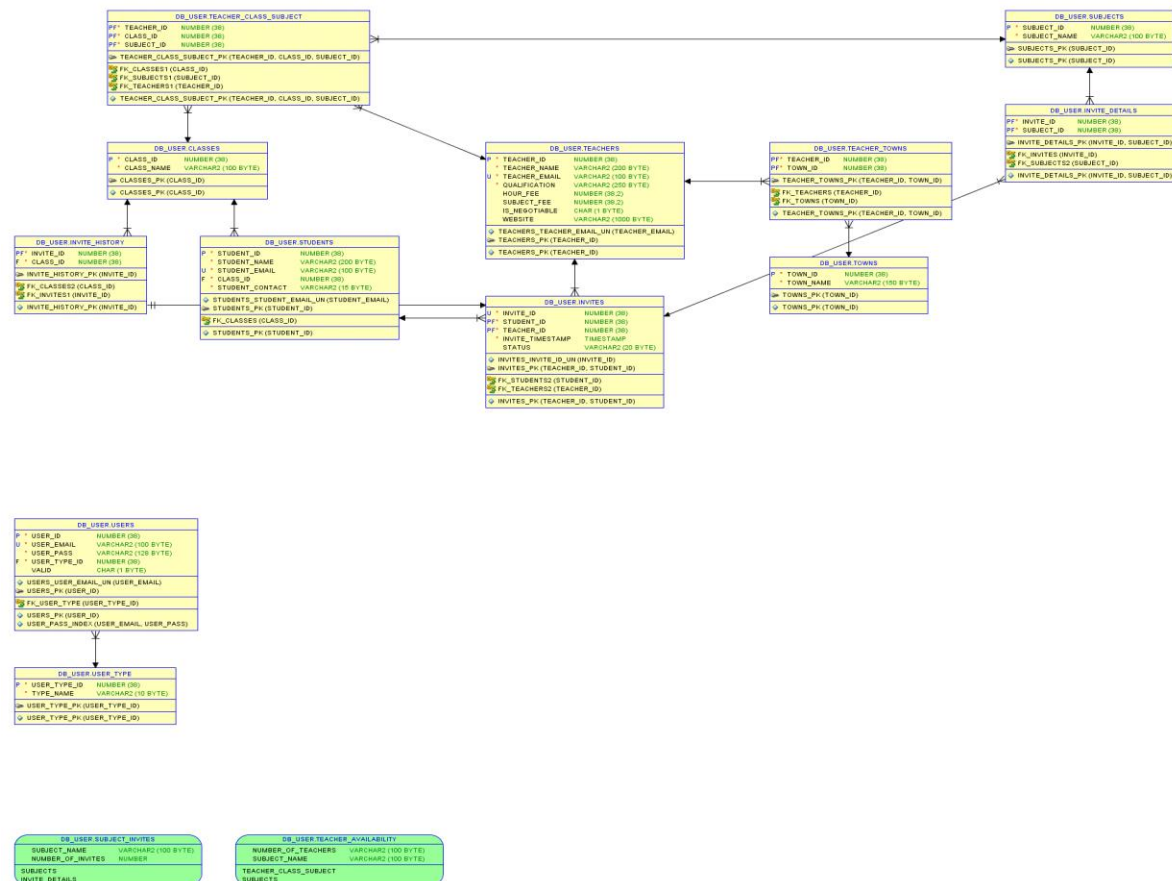
Logging in as teacher: Likewise, a teacher too needs to register in the system and add his respective credentials (CNIC, Full Name, Father's Name, Age, Email, Desired Salary/Rates, Subjects that tutor teaches, Teaching Experience). The teacher may receive invites sent to them by students. Upon reading them he has two options either to accept or decline the invite. Accepting the invite would direct him to contact the student.

Modifying invites: Invitations could be changed and deleted depending upon their status.

**Status: invite not read:** Invite once sent and is not read by the teacher could be modified (change in credentials) or even deleted without notifying the teacher.

**Status: invite read:** Invite read by the teacher could be changed only if prior changes are made in the student's credentials, having an option of renew invite. As soon as this option is selected automatically an updated invite is generated and the teacher is notified about the changes made.

# Entity relationship diagram – ERD



## Normalization:

As its understood that a teacher would be teaching in more than one town and to different subjects as a result it's difficult to handle all under one table of 'teacher' because of anomalies being created of insert, update and delete. To overcome this problem, we've created a join table of teacher\_towns and teacher\_class\_subject. Now we can independently update and insert in the teacher's table.

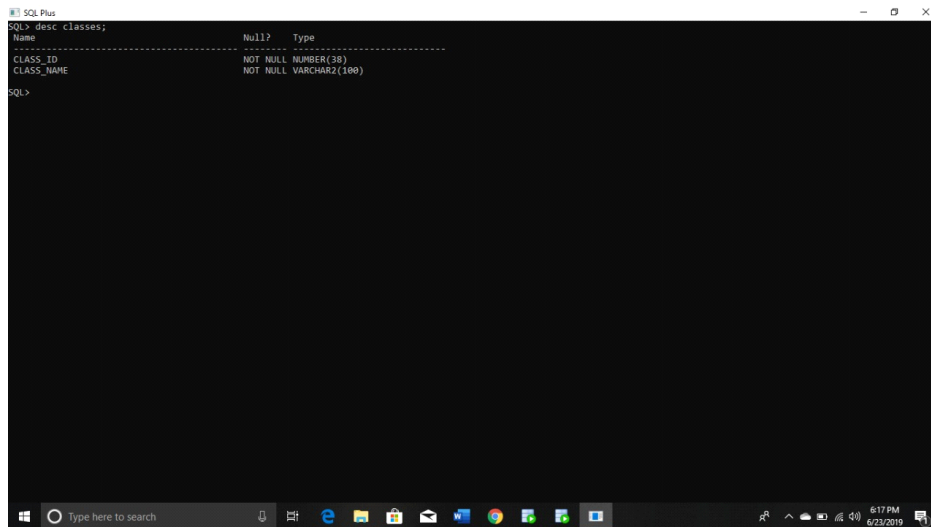
Likewise, by using class name from the students table would lead to deletion of class entirely when we delete student record from the table i.e. delete anomaly. So, we made another table of classes.

Same goes for invites sent by the students. We know that an invite may have more than one subjects, having all of them in a single table would mean repetition and

redundancy of data not to forget anomalies. Countering this problem by having a table of invite details that would refer to subjects selected.

## Physical Schema:

### 1. Classes:

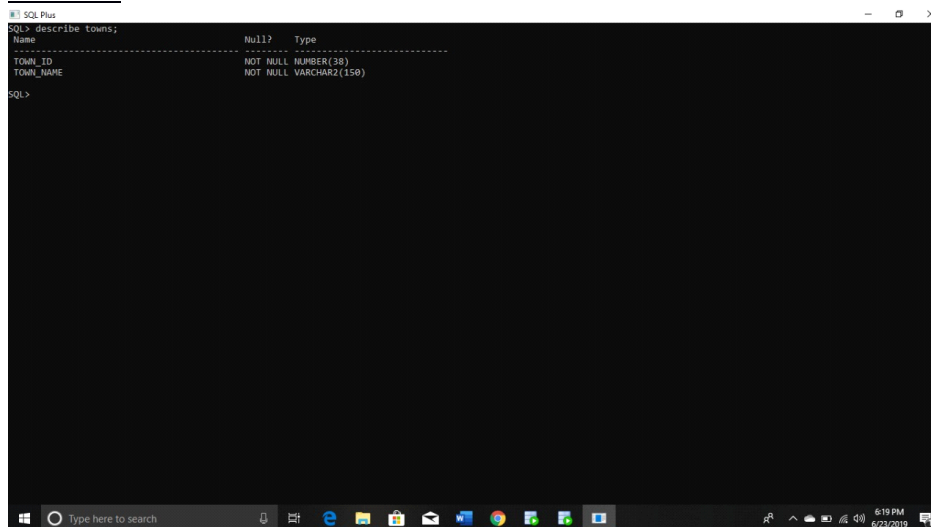


```
SQL> desc classes;
Name                               Null?   Type
-----
CLASS_ID                           NOT NULL NUMBER(38)
CLASS_NAME                         NOT NULL VARCHAR2(100)

SQL>
```

The screenshot shows a SQL Plus window with a black background. The command 'SQL> desc classes;' has been entered, and the output displays the table structure for 'classes'. The table has two columns: 'CLASS\_ID' of type 'NUMBER(38)' and 'CLASS\_NAME' of type 'VARCHAR2(100)'. Both columns are marked as 'NOT NULL'. The window title is 'SQL Plus' and the system tray at the bottom shows the time as 6:17 PM on 6/23/2019.

### 2. Towns:

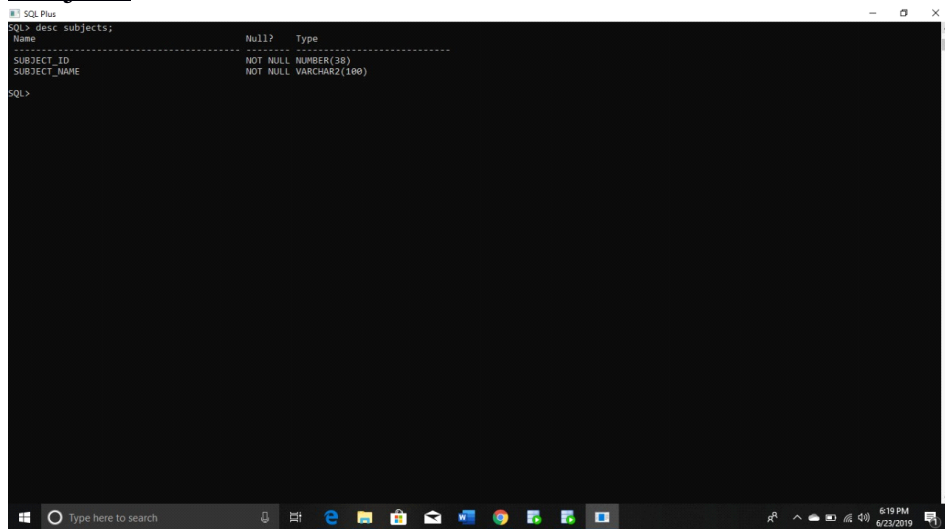


```
SQL> describe towns;
Name                               Null?   Type
-----
TOWN_ID                             NOT NULL NUMBER(38)
TOWN_NAME                           NOT NULL VARCHAR2(150)

SQL>
```

The screenshot shows a SQL Plus window with a black background. The command 'SQL> describe towns;' has been entered, and the output displays the table structure for 'towns'. The table has two columns: 'TOWN\_ID' of type 'NUMBER(38)' and 'TOWN\_NAME' of type 'VARCHAR2(150)'. Both columns are marked as 'NOT NULL'. The window title is 'SQL Plus' and the system tray at the bottom shows the time as 6:19 PM on 6/23/2019.

### 3. Subject:

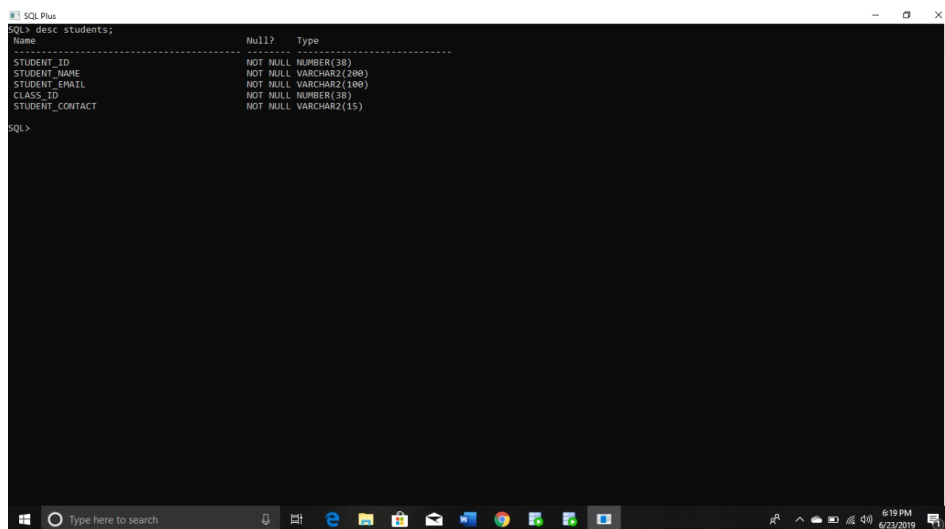


A screenshot of a SQL Plus window titled "SQL Plus". The command prompt shows the command "SQL> desc subjects;" followed by the output of the DESCRIBE command. The output is a table with three columns: "Name", "Null?", and "Type". The table lists two columns: "SUBJECT\_ID" and "SUBJECT\_NAME". The "SUBJECT\_ID" column is of type "NUMBER(38)" and is "NOT NULL". The "SUBJECT\_NAME" column is of type "VARCHAR2(100)" and is "NOT NULL". The window has a standard Windows taskbar at the bottom with various application icons and a system clock showing 6:19 PM on 6/23/2019.

```
SQL> desc subjects;
Name                                Null?    Type
-----
SUBJECT_ID                          NOT NULL NUMBER(38)
SUBJECT_NAME                         NOT NULL VARCHAR2(100)

SQL>
```

### 4. Students:



A screenshot of a SQL Plus window titled "SQL Plus". The command prompt shows the command "SQL> desc students;" followed by the output of the DESCRIBE command. The output is a table with three columns: "Name", "Null?", and "Type". The table lists five columns: "STUDENT\_ID", "STUDENT\_NAME", "STUDENT\_EMAIL", "CLASS\_ID", and "STUDENT\_CONTACT". The "STUDENT\_ID" column is of type "NUMBER(38)" and is "NOT NULL". The "STUDENT\_NAME" column is of type "VARCHAR2(200)" and is "NOT NULL". The "STUDENT\_EMAIL" column is of type "VARCHAR2(100)" and is "NOT NULL". The "CLASS\_ID" column is of type "NUMBER(38)" and is "NOT NULL". The "STUDENT\_CONTACT" column is of type "VARCHAR2(15)" and is "NOT NULL". The window has a standard Windows taskbar at the bottom with various application icons and a system clock showing 6:19 PM on 6/23/2019.

```
SQL> desc students;
Name                                Null?    Type
-----
STUDENT_ID                          NOT NULL NUMBER(38)
STUDENT_NAME                         NOT NULL VARCHAR2(200)
STUDENT_EMAIL                       NOT NULL VARCHAR2(100)
CLASS_ID                             NOT NULL NUMBER(38)
STUDENT_CONTACT                     NOT NULL VARCHAR2(15)

SQL>
```

## 5. Teachers:

```
SQL> desc teachers;
-----
Name      Null?    Type
-----
TEACHER_ID NOT NULL NUMBER(38)
TEACHER_NAME NOT NULL VARCHAR2(100)
TEACHER_EMAIL NOT NULL VARCHAR2(100)
QUALIFICATION NOT NULL VARCHAR2(250)
HOUR_FEE      NUMBER(9,2)
SUBJECT_FEE   NUMBER(38,2)
IS_NEGOTIABLE CHAR(1)
WEBSITE       VARCHAR2(1000)

SQL>
```

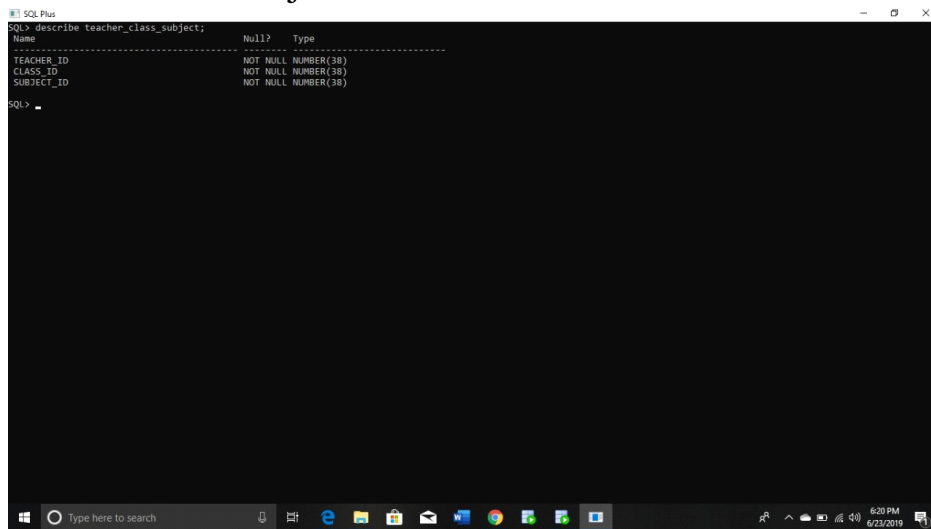
## 6. Teacher\_town:

```
SQL> describe teacher_towns;
-----
Name      Null?    Type
-----
TEACHER_ID NOT NULL NUMBER(38)
TOWN_ID    NOT NULL NUMBER(38)

SQL>
```



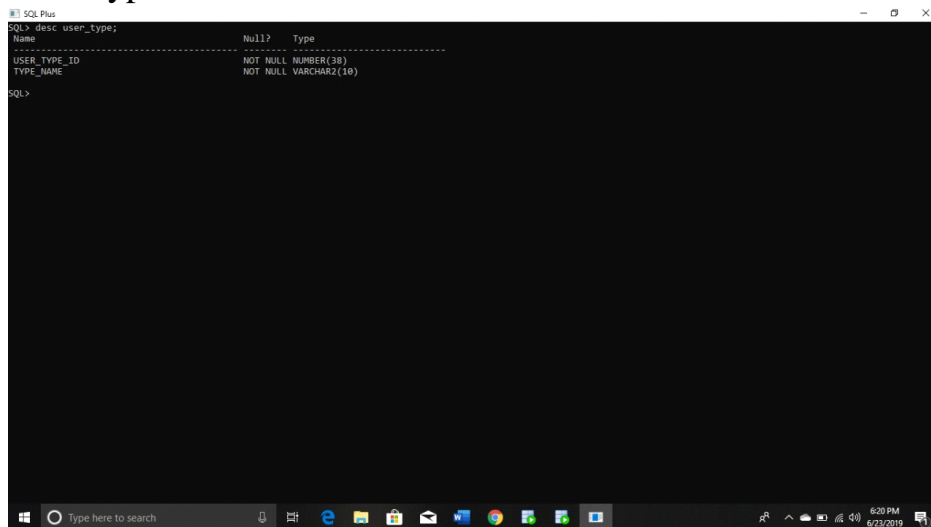
## 7. Teacher\_class\_subject:



The screenshot shows a SQL Plus window with the command `SQL> describe teacher_class_subject;` entered. The output displays the table's structure with columns: `TEACHER_ID`, `CLASS_ID`, and `SUBJECT_ID`. All columns are of type `NUMBER(38)` and are not nullable. The window also shows the Windows taskbar at the bottom with the date 6/23/2019 and time 6:20 PM.

```
SQL> describe teacher_class_subject;
Name Null? Type
-----
TEACHER_ID NOT NULL NUMBER(38)
CLASS_ID NOT NULL NUMBER(38)
SUBJECT_ID NOT NULL NUMBER(38)
SQL>
```

## 8. User\_type:

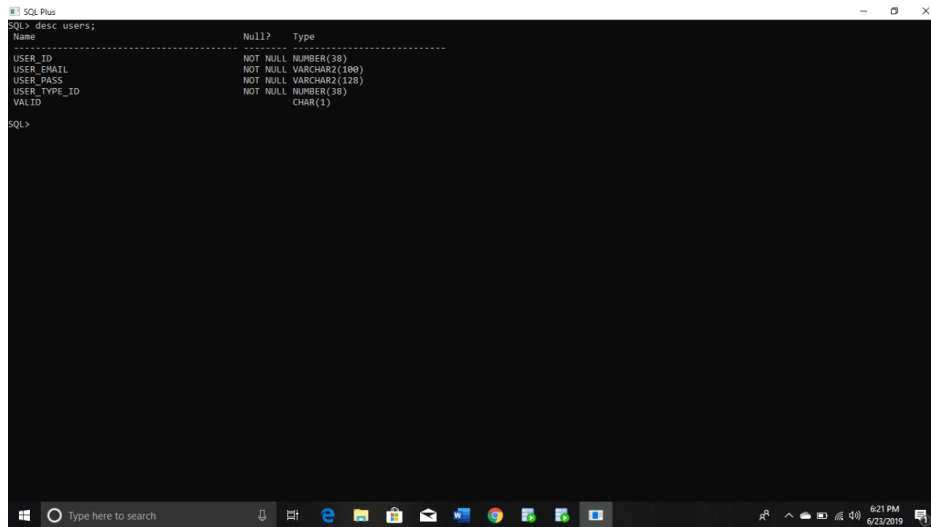


The screenshot shows a SQL Plus window with the command `SQL> desc user_type;` entered. The output displays the table's structure with columns: `USER_TYPE_ID` and `TYPE_NAME`. `USER_TYPE_ID` is of type `NUMBER(38)` and is not nullable. `TYPE_NAME` is of type `VARCHAR2(10)` and is not nullable. The window also shows the Windows taskbar at the bottom with the date 6/23/2019 and time 6:20 PM.

```
SQL> desc user_type;
Name Null? Type
-----
USER_TYPE_ID NOT NULL NUMBER(38)
TYPE_NAME NOT NULL VARCHAR2(10)
SQL>
```

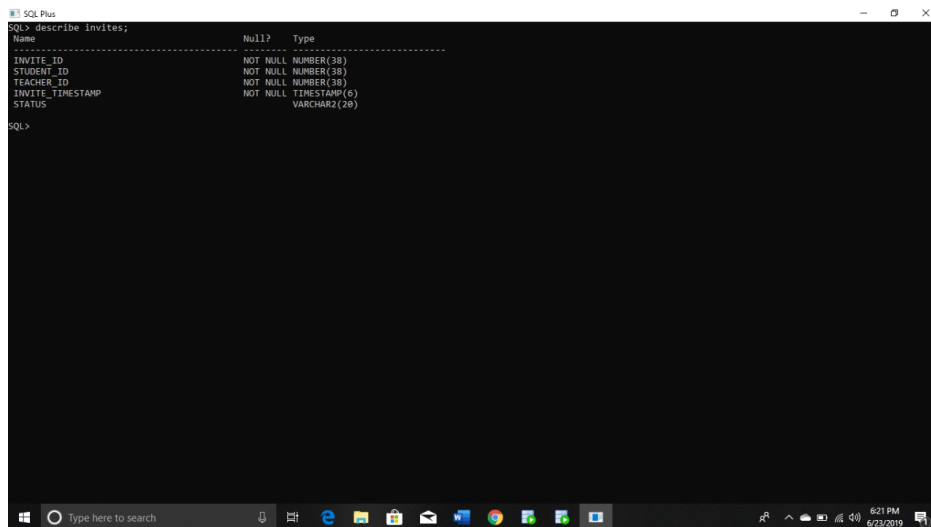
## 9. Users:

```
SQL> desc users;
-----
Name      Null?   Type
-----
USER_ID   NOT NULL NUMBER(38)
USER_EMAIL NOT NULL VARCHAR2(100)
USER_PASS NOT NULL VARCHAR2(128)
USER_TYPE_ID NOT NULL NUMBER(38)
VALID     CHAR(1)
```

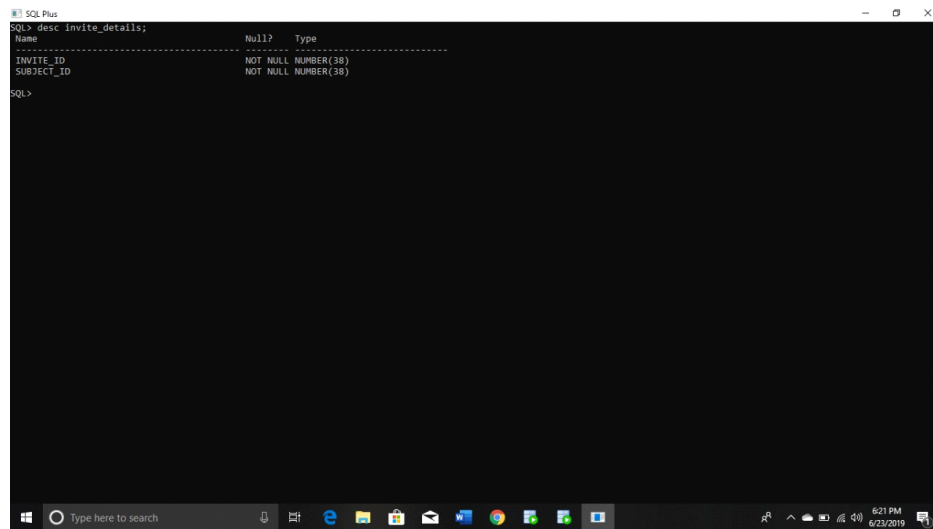


## 10. Invites:

```
SQL> describe invites;
-----
Name      Null?   Type
-----
INVITE_ID NOT NULL NUMBER(38)
STUDENT_ID NOT NULL NUMBER(38)
TEACHER_ID NOT NULL NUMBER(38)
INVITE_TIMESTAMP NOT NULL TIMESTAMP(6)
STATUS     VARCHAR2(20)
```



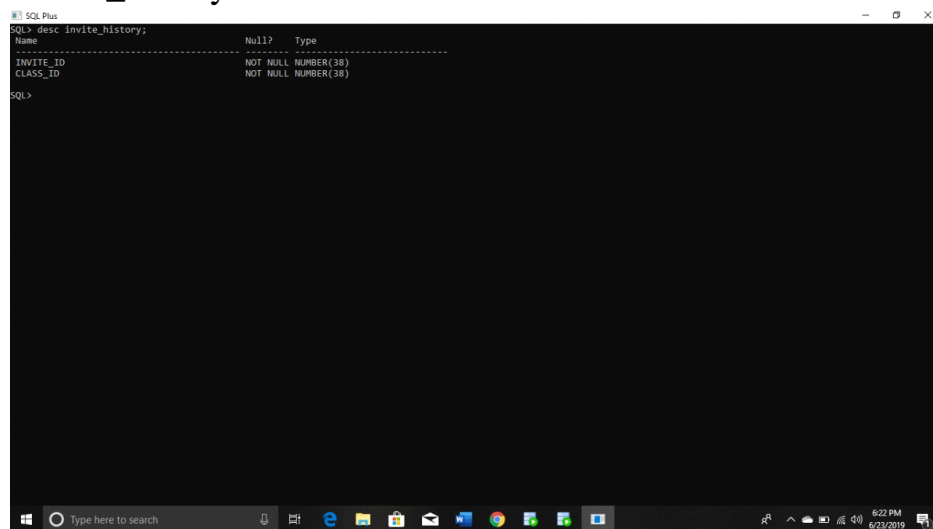
## 11. Invite\_details:



A screenshot of a SQL Plus window titled "SQL Plus". The command prompt shows the command `SQL> desc invite_details;`. The output displays the table structure for `invite_details` with two columns: `INVITE_ID` and `SUBJECT_ID`, both of type `NUMBER(38)` and `NOT NULL`. The window has a standard Windows taskbar at the bottom with the search bar and various application icons. The system clock shows 6:21 PM on 6/23/2019.

```
SQL> desc invite_details;
Name                                Null?    Type
-----
INVITE_ID                          NOT NULL NUMBER(38)
SUBJECT_ID                          NOT NULL NUMBER(38)
SQL>
```

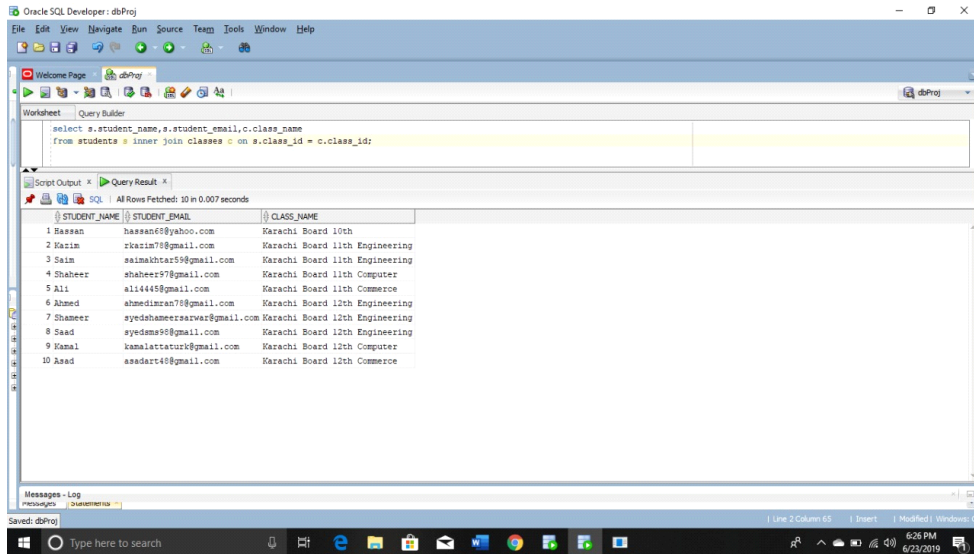
## 12. Invite\_history:



A screenshot of a SQL Plus window titled "SQL Plus". The command prompt shows the command `SQL> desc invite_history;`. The output displays the table structure for `invite_history` with two columns: `INVITE_ID` and `CLASS_ID`, both of type `NUMBER(38)` and `NOT NULL`. The window has a standard Windows taskbar at the bottom with the search bar and various application icons. The system clock shows 6:22 PM on 6/23/2019.

```
SQL> desc invite_history;
Name                                Null?    Type
-----
INVITE_ID                          NOT NULL NUMBER(38)
CLASS_ID                           NOT NULL NUMBER(38)
SQL>
```

## Screen shots of all fact-finding queries:



Oracle SQL Developer: dbProj

Query Builder

```
select s.student_name,s.student_email,c.class_name  
from students s inner join classes c on s.class_id = c.class_id;
```

Script Output

Query Result

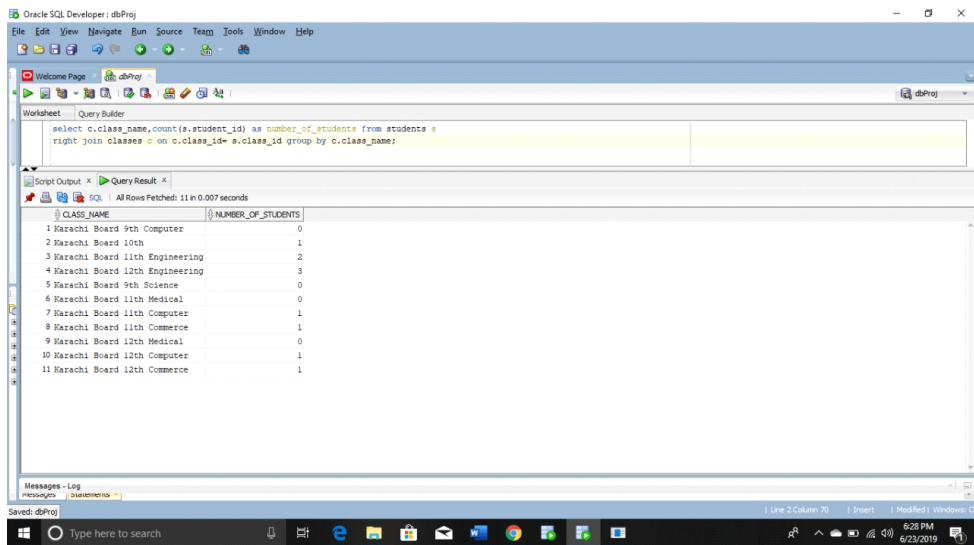
All Rows Fetched: 10 in 0.007 seconds

	STUDENT_NAME	STUDENT_EMAIL	CLASS_NAME
1	Hasan	hasan68@yahoo.com	Karachi Board 10th
2	Karim	rkazim78@gmail.com	Karachi Board 11th Engineering
3	Saim	saimakhtar59@gmail.com	Karachi Board 11th Engineering
4	Shabeer	shabeer97@gmail.com	Karachi Board 11th Computer
5	Ali	ali14445@gmail.com	Karachi Board 11th Commerce
6	Ahmed	ahmedimran78@gmail.com	Karachi Board 12th Engineering
7	Shameer	syedshameersarwar@gmail.com	Karachi Board 12th Engineering
8	Saad	syedms98@gmail.com	Karachi Board 12th Engineering
9	Kamal	kamalataturk@gmail.com	Karachi Board 12th Computer
10	Aasad	asadert4@gmail.com	Karachi Board 12th Commerce

Messages - Log

1. Type here to search

6:28 PM 6/23/2019



Oracle SQL Developer: dbProj

Query Builder

```
select c.class_name,count(s.student_id) as number_of_students from students s  
right join classes c on c.class_id= s.class_id group by c.class_name;
```

Script Output

Query Result

All Rows Fetched: 11 in 0.007 seconds

	CLASS_NAME	NUMBER_OF_STUDENTS
1	Karachi Board 9th Computer	0
2	Karachi Board 10th	1
3	Karachi Board 11th Engineering	2
4	Karachi Board 12th Engineering	3
5	Karachi Board 9th Science	0
6	Karachi Board 11th Medical	0
7	Karachi Board 11th Computer	1
8	Karachi Board 11th Commerce	1
9	Karachi Board 12th Medical	0
10	Karachi Board 12th Computer	1
11	Karachi Board 12th Commerce	1

Messages - Log

2. Type here to search

6:28 PM 6/23/2019

Oracle SQL Developer: dbProj

File Edit View Navigate Run Source Team Tools Window Help

Worksheet Query Builder

```
select t.teacher_name, t.teacher_email, tt.town_name from
teachers t right join teacher_towns tt on t.teacher_id = tt.teacher_id
inner join towns tt on tt.town_id = tt.town_id;
```

Script Output Query Result

All Rows Fetched: 10 in 0.033 seconds

TEACHER_NAME	TEACHER_EMAIL	TOWN_NAME
1	Agel	Gulistan-e-Johar
2	Adnan	Gulistan-e-Johar
3	Fahad	Gulshan-e-Iqbal
4	Faisal	Clifton
5	Behroz	Malir
6	Mohsin	Gulshan-e-Iqbal
7	Aziz	Lyeri
8	Munawar	Gulistan-e-Johar
9	Usman	Malir
10	Umar	Bahria Town

Messages - Log

Saved: dbProj

Type here to search

6:29 PM 6/23/2019

3.

Oracle SQL Developer: dbProj

File Edit View Navigate Run Source Team Tools Window Help

Worksheet Query Builder

```
select count(town.town_id), tt.town_name from
teachers t inner join teacher_towns tt on t.teacher_id = tt.teacher_id
right join towns tt on tt.town_id = tt.town_id group by tt.town_name;
```

Script Output Query Result

All Rows Fetched: 9 in 0.007 seconds

COUNT(TOWN.TOWN_ID)	TOWN_NAME
1	0 North Karachi
2	0 Hyderi
3	3 Gulistan-e-Johar
4	1 Clifton
5	2 Gulshan-e-Iqbal
6	2 Malir
7	1 Lyari
8	1 Bahria Town
9	0 North Nazimabad

Messages - Log

Saved: dbProj

Type here to search

6:30 PM 6/23/2019

4.

Oracle SQL Developer: dbProj

File Edit View Navigate Run Source Tools Window Help

Worksheet Query Builder

```

from teachers t inner join teacher_class_subject tcs on t.teacher_id = tcs.teacher_id
inner join classes c on c.class_id = tcs.class_id inner join subjects s on
s.subject_id = tcs.subject_id

```

Script Output x Query Result x

All Rows Fetched: 34 in 0.072 seconds

	TEACHER_NAME	TEACHER_EMAIL	CLASS_NAME	SUBJECT_NAME
1	Faisal	faisalnasim@gmail.com	Karachi Board 9th Computer	English
2	Aqeel	aqeelchemist@gmail.com	Karachi Board 9th Computer	Chemistry
3	Faisal	faisalnasim@gmail.com	Karachi Board 9th Computer	Chemistry
4	Umar	umar59@gmail.com	Karachi Board 9th Computer	Maths
5	Aqeel	aqeelchemist@gmail.com	Karachi Board 9th Science	Chemistry
6	Aqeel	aqeelchemist@gmail.com	Karachi Board 10th	Islamiat
7	Taman	usman48@gmail.com	Karachi Board 10th	Chemistry
8	Taman	usman48@gmail.com	Karachi Board 10th	Physics
9	Adnan	mathewithadnan@gmail.com	Karachi Board 10th	Maths
10	Taman	usman48@gmail.com	Karachi Board 10th	Maths
11	Aqeel	aqeelchemist@gmail.com	Karachi Board 11th Medical	Islamiat
12	Aqeel	aqeelchemist@gmail.com	Karachi Board 11th Medical	Chemistry
13	Aziz	azizislamia@gmail.com	Karachi Board 11th Medical	Chemistry
14	Mohsin	mohsinDj@gmail.com	Karachi Board 11th Medical	Physics
15	Aqeel	aqeelchemist@gmail.com	Karachi Board 11th Engineering	Islamiat
16	Aqeel	aqeelchemist@gmail.com	Karachi Board 11th Engineering	Chemistry
17	Aziz	azizislamia@gmail.com	Karachi Board 11th Engineering	Chemistry
18	Mohsin	mohsinDj@gmail.com	Karachi Board 11th Engineering	Physics

Messages - Log

Saved: dbProj

Type here to search

6:30 PM 6/23/2019

5.

Oracle SQL Developer: dbProj

File Edit View Navigate Run Source Tools Window Help

Worksheet Query Builder

```

from teachers t inner join teacher_class_subject tcs on t.teacher_id = tcs.teacher_id
inner join classes c on c.class_id = tcs.class_id inner join subjects s on
s.subject_id = tcs.subject_id

```

Script Output x Query Result x

All Rows Fetched: 34 in 0.072 seconds

	TEACHER_NAME	TEACHER_EMAIL	CLASS_NAME	SUBJECT_NAME
17	Aziz	azizislamia@gmail.com	Karachi Board 11th Engineering	Chemistry
18	Mohsin	mohsinDj@gmail.com	Karachi Board 11th Engineering	Physics
19	Adnan	mathewithadnan@gmail.com	Karachi Board 11th Engineering	Maths
20	Behroz	behroz99@gmail.com	Karachi Board 11th Engineering	Maths
21	Aqeel	aqeelchemist@gmail.com	Karachi Board 11th Computer	Islamiat
22	Umar	umar59@gmail.com	Karachi Board 11th Computer	Maths
23	Aqeel	aqeelchemist@gmail.com	Karachi Board 11th Commerce	Islamiat
24	Aqeel	aqeelchemist@gmail.com	Karachi Board 12th Medical	Chemistry
25	Aziz	azizislamia@gmail.com	Karachi Board 12th Medical	Chemistry
26	Mohsin	mohsinDj@gmail.com	Karachi Board 12th Medical	Physics
27	Aqeel	aqeelchemist@gmail.com	Karachi Board 12th Engineering	Chemistry
28	Aziz	azizislamia@gmail.com	Karachi Board 12th Engineering	Chemistry
29	Fahad	fahadeng@gmail.com	Karachi Board 12th Engineering	Physics
30	Mohsin	mohsinDj@gmail.com	Karachi Board 12th Engineering	Physics
31	Munawar	munwarfanug@gmail.com	Karachi Board 12th Engineering	Physics
32	Adnan	mathewithadnan@gmail.com	Karachi Board 12th Engineering	Maths
33	Behroz	behroz99@gmail.com	Karachi Board 12th Engineering	Maths
34	Umar	umar59@gmail.com	Karachi Board 12th Computer	Computer

Messages - Log

Saved: dbProj

Type here to search

6:30 PM 6/23/2019

6.

Oracle SQL Developer: dbProj

File Edit View Navigate Run Source Team Tools Window Help

Welcome Page dbProj

Worksheet Query Builder

```
select count(t.teacher_id), s.subject_name from teacher_class_subject t
right join subjects s on t.subject_id = s.subject_id group by s.subject_name;
```

Script Output Query Result All Rows Fetched: 10 in 0.016 seconds

COUNT(T.TEACHER_ID)	SUBJECT_NAME
7	Physics
0	Pakistant Studies
12	Chemistry
8	Maths
1	English
5	Islamiat
0	Urdu
0	Political Science
1	Computer
0	Sindhi

Messages - Log

Saved: dbProj

Type here to search

6:31 PM 6/23/2019

7.

Oracle SQL Developer: dbProj

File Edit View Navigate Run Source Team Tools Window Help

Welcome Page dbProj

Worksheet Query Builder

```
select i.invite_id, s.student_email, t.teacher_email, i.invite_timestamp from
invites i inner join students s on s.student_id = i.student_id inner join
teachers t on t.teacher_id = i.teacher_id;
```

Script Output Query Result All Rows Fetched: 10 in 0.024 seconds

INVITE_ID	STUDENT_EMAIL	TEACHER_EMAIL	DATE_TIMESTAMP
1	1ayedshameersarvar@gmail.com	ageelchenis@gmail.com	14-JUN-19 09:58:20.715000000 AM
2	8shaher97@gmail.com	ageelchenis@gmail.com	14-JUN-19 09:58:20.748000000 AM
3	2ayedshameersarvar@gmail.com	mathavithadas@gmail.com	14-JUN-19 09:58:20.720000000 AM
4	9shaher97@gmail.com	fehaden@gmail.com	14-JUN-19 09:58:20.751000000 AM
5	3ayedshameersarvar@gmail.com	faisalnazim@gmail.com	14-JUN-19 09:58:20.725000000 AM
6	6ayedshameersarvar@gmail.com	behroz98@gmail.com	14-JUN-19 09:58:20.739000000 AM
7	10shaher97@gmail.com	behroz98@gmail.com	14-JUN-19 09:58:20.755000000 AM
8	4rkasin78@gmail.com	mohsin07@gmail.com	14-JUN-19 09:58:20.729000000 AM
9	5rkasin78@gmail.com	azizIslamia@gmail.com	14-JUN-19 09:58:20.733000000 AM
10	7ayedshameersarvar@gmail.com	umar98@gmail.com	14-JUN-19 09:58:20.742000000 AM

Messages - Log

Saved: dbProj

Type here to search

6:32 PM 6/23/2019

8.

Oracle SQL Developer: dbProj

File Edit View Navigate Run Source Team Tools Window Help

Welcome Page

Worksheet Query Builder

```
select u.user_email,s.student_name,t.teacher_name from users u
left join students s on u.user_email = s.student_email left join
teachers t on t.teacher_email = u.user_email;
```

Script Output Query Result

SQL All Rows Fetched: 20 in 0.032 seconds

USER_EMAIL	STUDENT_NAME	TEACHER_NAME
1 aspeichen1st@gmail.com	(null)	Aqeel
2 nachawichadine@gmail.com	(null)	Adnan
3 fahadeng@gmail.com	(null)	Fahad
4 faisalnazim@gmail.com	(null)	Faisal
5 behroz9@gmail.com	(null)	Behroz
6 mohainDj@gmail.com	(null)	Mohain
7 azizislamia@gmail.com	(null)	Aziz
8 munwarKhan@gmail.com	(null)	Munawar
9 usman43@gmail.com	(null)	Usman
10 umar5@gmail.com	(null)	Umar
11 asadart4@gmail.com	(null)	Asad
12 shahmeer97@gmail.com	(null)	Shahmeer
13 ahmedimran78@gmail.com	(null)	Ahmed
14 kamalattatur@gmail.com	(null)	Kamal
15 ayedshameerzavar@gmail.com	(null)	Shameer
16 asimakhhtar5@gmail.com	(null)	Saim
17 hassan@yahoo.com	(null)	Hassan
18 ayedama9@gmail.com	(null)	Saad

Messages - Log

Click on an identifier with the Control key down to perform "Go to Declaration"

Type here to search

6:38 PM 6/23/2019

9.

SQL Plus

```
SQL> select count(*) as number_of_teachers from teachers;
```

NUMBER\_OF\_TEACHERS

10

SQL>

Type here to search

9:51 PM 6/23/2019

10.



11.

```
SQL Plus
SQL> select count(*) as number_of_students from students;
NUMBER_OF_STUDENTS
-----
10
SQL>
```

12.

```
SQL Plus
SQL> select class_name as classes from classes;
CLASSES
-----
Karachi Board 9th Computer
Karachi Board 9th Science
Karachi Board 10th
Karachi Board 11th Medical
Karachi Board 11th Engineering
Karachi Board 11th Computer
Karachi Board 11th Commerce
Karachi Board 12th Medical
Karachi Board 12th Engineering
Karachi Board 12th Computer
Karachi Board 12th Commerce
11 rows selected.
SQL>
```

```

SQL Plus
SQL> select town_name as towns from towns;

TOWNS
-----
Sulistane-Johar
Gulshan-e-Iqbal
Malir
Lyari
Hyderi
Clifton
Wahria Town
North Karachi
North Nazimabad
9 rows selected.

SQL>

```

13.

```

Oracle SQL Developer: dbProj
File Edit View Navigate Run Source Tools Window Help

Worksheet
select teacher_email as emails from teachers union select student_email from students;

Script Output
SQL All Rows Fetched: 20 in 0.004 seconds

EMAILS
-----
1 ahmedimran78@gmail.com
2 ali4445@gmail.com
3 ageelchenist@gmail.com
4 asadart4@gmail.com
5 azizfalema@gmail.com
6 betec9@gmail.com
7 fahadery@gmail.com
8 faisalnazim@gmail.com
9 hassan@yahoo.com
10 kamalattaturk@gmail.com
11 mathavithadnan@gmail.com
12 mohainDy@gmail.com
13 mumayyaz@gmail.com
14 utain7@gmail.com
15 sainahtar5@gmail.com
16 shabeer9@gmail.com
17 syedshameersarwar@gmail.com
18 syedma5@gmail.com

```

14.

```

SQL Plus
SQL> select count(*) number_of_invites from invites;

NUMBER_OF_INVITES
-----
10

SQL>

```

15.

### **Future work:**

The database is currently functional as a stand-alone web application with a Oracle back-end and can begin to be used. . It is anticipated that the following tasks will need to be accomplished in order to achieve the goals stated above:

- Gather feedback (both direct and observational) .
- Develop information architecture for needed forms, web pages, and database tables to support the form.
- Code web pages as such to interact with database tables.
- Conduct usability testing of the completed pages and develop punch list of improvements and fixes needed.
- Document and hand off the code base for production implementation

### **Conclusion:**

After reviewing our work, the conclusion is that after many adjustments the system works. As good as it is now, there can still be made many adjustments. However, in the time was given that three persons can work on this project, the overall results are satisfactory in our opinion. The report covers the entire course of the project and results are there were needed. The first weeks the work progressed slower than expected, in the last weeks the pace was increased to finish on time. The results of this report should be sufficient evidence that work was done properly