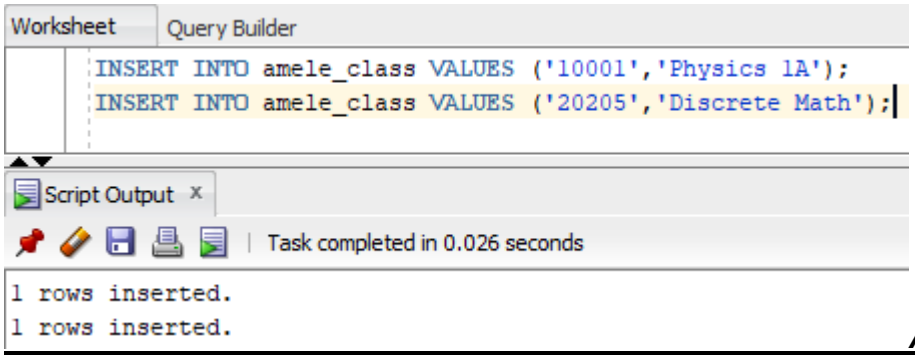


ASSIGNMENT 6

Insert/Delete/Truncate/Drop

In this lab you will use SQL statements that fall in both the DDL and DML category. In this lab you will be storing new information in the database. You will be using the tables from your previous assignment as such: (Make sure that your tables contain the following columns along with the appropriate constraints

Student

SSN primary key
lname
fname
dob
salary check>10000
(lname and fname are a composite candidate key)

Class

Class code primary key
Class description (Create an index on this column using the create index command)

Student_class

SSN Foreign key
Class Code Foreign key
(SSN and class code are a composite primary key)

You must execute the statements in the order in which the questions are being asked.

Suggestions:

1) Do not create a spool file. This lab will probably take several days. Since you cannot guarantee that the work that you did on my home computer or the lab computers on campus will be there the next time you open up the SQLPlus session, I would make the following suggestion: Store all your SQL statements in a text file. Then you can just copy and paste your SQL statements into the SQLPlus session and get back to where you left off.

2) I would also suggest that you drop all your tables in the beginning of the text file just in case the tables are still there so that you don't get any error messages

All the tables that you create should be prefixed with the first five letters of your lastname such as **sabze_patient**

What to turn in:

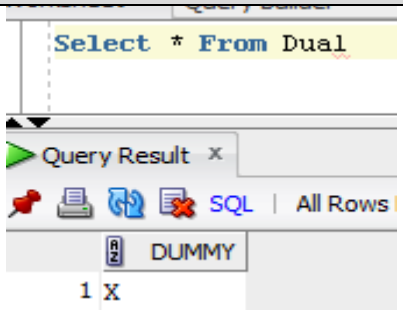
1) You will turn in this word document only. I do not want any other files
2) Paste a printscreen of either the **SQLPlus session** or **SQL Developer** showing only the SQL command and the results from the database engine. Some of the SQL statements that you issue may cause an error and may actually be the expected result. Do not assume that just because you are not getting an error message, everything is okay.

3) When typing in your SQL statements, make sure that the keywords are all in uppercase. The identifiers that you come up with such as table names, column names or constraint names should all be in lower case.
4) Make sure that you prefix your table names with the first five letters of your last name.
5) Make sure that you only provide a printscreen of the snippet that pertains to the question (NOTHING MORE).

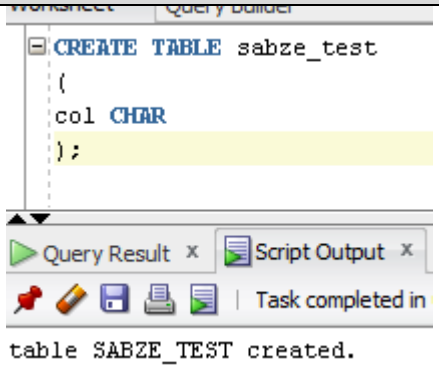
Suggestion: you can use the snipping tool in windows 7 or you can download this open source program http://getgreenshot.org/ for printscreens. Provide only the printscreen that pertains to the question. **I do not want to see your trial and errors or things that pertain to other questions.**

SQLPlus or SQLDeveloper (Your choice)

Example	Display the contents of the dual table

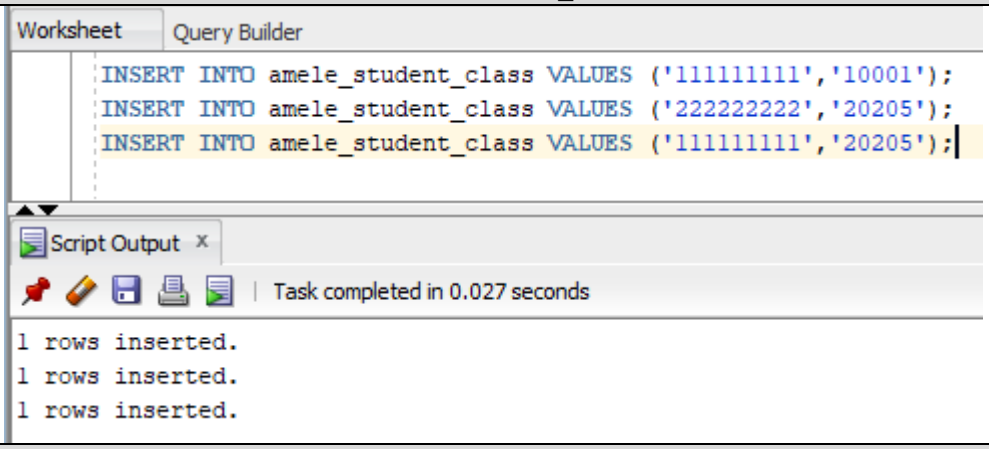
	`SQL> SELECT * FROM dual;`
	`D`
	`-`
	`X`
	`1 row selected.`
	OR
	 

Next Example	Create a table called test

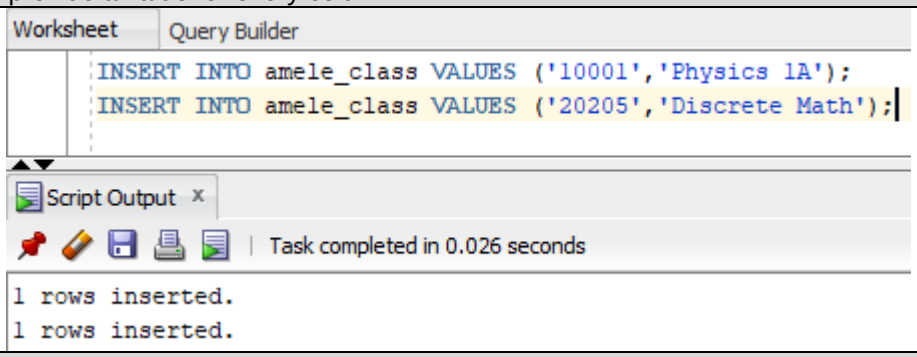
	`SQL> CREATE TABLE sabze_test`
	`  2  (`
	`  3  col   CHAR`
	`  4  );`
	`Table created.`
	OR
	 

All the tables that you create must be prefixed with the first five letters of your last name such as sabze_student.

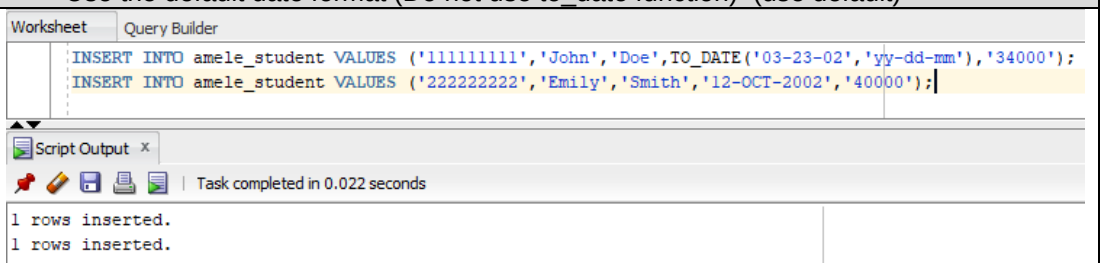
The order in which you insert data into your tables is different from the order in which the questions have been asked. **Questions 1a, 1b and 1c should not give you any error messages**

1A	**Insert** three rows of valid data into the **student_class** table
	
1B	**Insert** two rows of valid data into the **class** table according to the following. Make sure that

	you provide a value for every column.

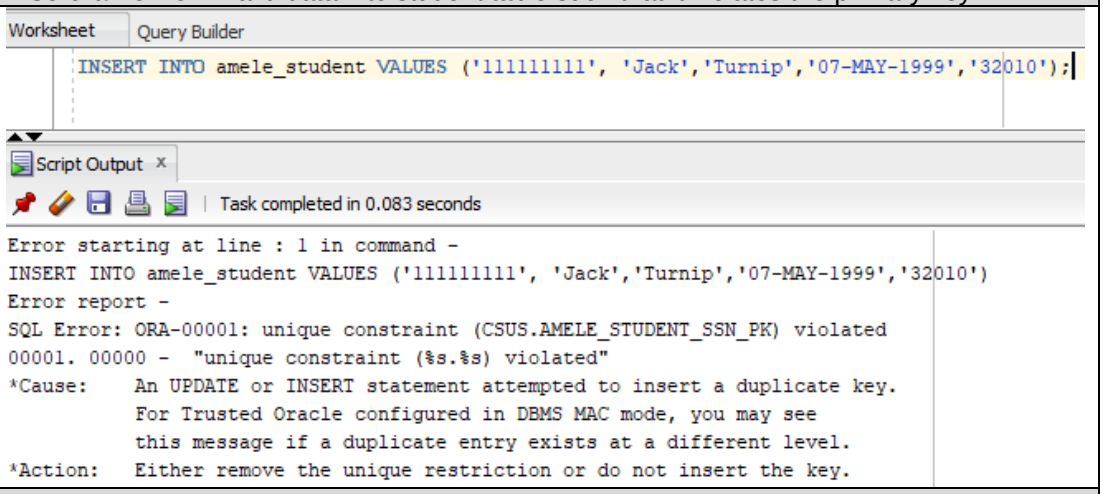


1C	**Insert** two rows of valid data into the **student** table according to the following. Provide a value for every column. For the 1st row: Use the to_date function to insert into the DOB column in the format (yyddmm) For the 2nd row Use the default date format (Do not use to_date function) (use default)



Do the questions in the order in which they appear. You may get error messages which of course is valid

2A	**Insert a** row of invalid data into student table such that it violates the primary key



2B	**Insert a** row of invalid data into student table such that it violates the candidate key

Worksheet | Query Builder

```
INSERT INTO amele_student VALUES ('333333333','John','Doe','04-JUL-2001','12000');
```

Script Output | Task completed in 0.082 seconds

```
Error starting at line : 1 in command -
INSERT INTO amele_student VALUES ('333333333','John','Doe','04-JUL-2001','12000')
Error report -
SQL Error: ORA-00001: unique constraint (CSUS.AMELE_STUDENT_NAME_UK) violated
00001. 00000 -  "unique constraint (%s.%s) violated"
*Cause:    An UPDATE or INSERT statement attempted to insert a duplicate key.
           For Trusted Oracle configured in DBMS MAC mode, you may see
           this message if a duplicate entry exists at a different level.
*Action:   Either remove the unique restriction or do not insert the key.
```

2C **Insert a** row of invalid data into student table such that it violates a check constraint

Worksheet | Query Builder

```
INSERT INTO amele_student VALUES ('444444444','Michael','Tyson','13-JAN-1980','7000');
```

Script Output | Task completed in 0.085 seconds

```
Error starting at line : 1 in command -
INSERT INTO amele_student VALUES ('444444444','Michael','Tyson','13-JAN-1980','7000')
Error report -
SQL Error: ORA-02290: check constraint (CSUS.AMELE_STUDENT_SALARY_CK) violated
02290. 00000 -  "check constraint (%s.%s) violated"
*Cause:    The values being inserted do not satisfy the named check

*Action:   do not insert values that violate the constraint.
```

2D **Insert a** row of invalid data into the **student_class** table such that it violates the foreign key to the class table

Worksheet | Query Builder

```
INSERT INTO amele_student_class VALUES ('111111111','30000');
```

Script Output | Task completed in 0.077 seconds

```
Error starting at line : 1 in command -
INSERT INTO amele_student_class VALUES ('111111111','30000')
Error report -
SQL Error: ORA-02291: integrity constraint (CSUS.AMELE_STDCLASS_CLCODE_FK) violated - parent key not found
02291. 00000 - "integrity constraint (%s.%s) violated - parent key not found"
*Cause:    A foreign key value has no matching primary key value.
*Action:   Delete the foreign key or add a matching primary key.
```

2E **Insert a** row of invalid data into the **student_class** table such that it violates the foreign key to the student table

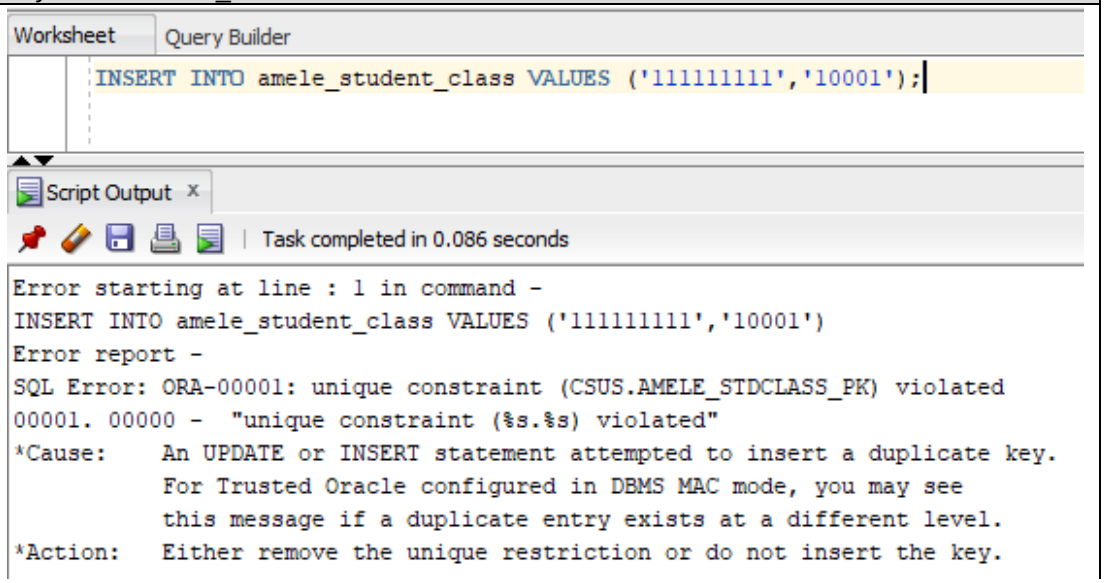
Worksheet | Query Builder

```
INSERT INTO amele_student_class VALUES ('777777777','20205');
```

Script Output | Task completed in 0.078 seconds

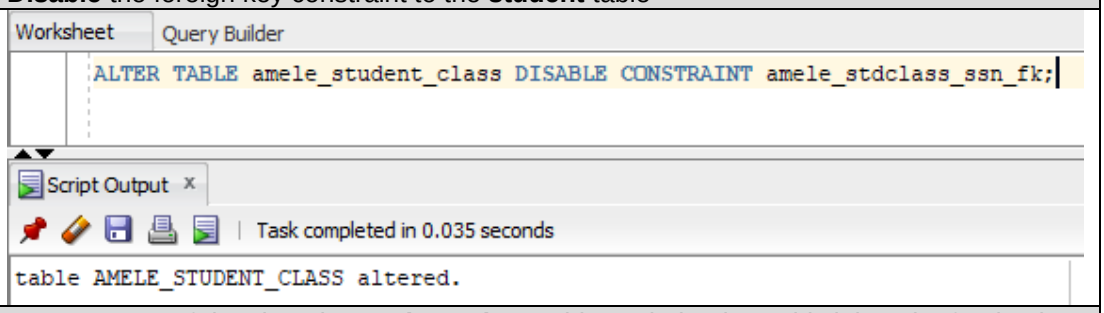
```
Error starting at line : 1 in command -
INSERT INTO amele_student_class VALUES ('777777777','20205')
Error report -
SQL Error: ORA-02291: integrity constraint (CSUS.AMELE_STDCLASS_SSN_FK) violated - parent key not found
02291. 00000 - "integrity constraint (%s.%s) violated - parent key not found"
*Cause:    A foreign key value has no matching primary key value.
*Action:   Delete the foreign key or add a matching primary key.
```

2F	**Insert a** row of invalid data into the **student_class** table such that it violates the primary key in the student_class table.

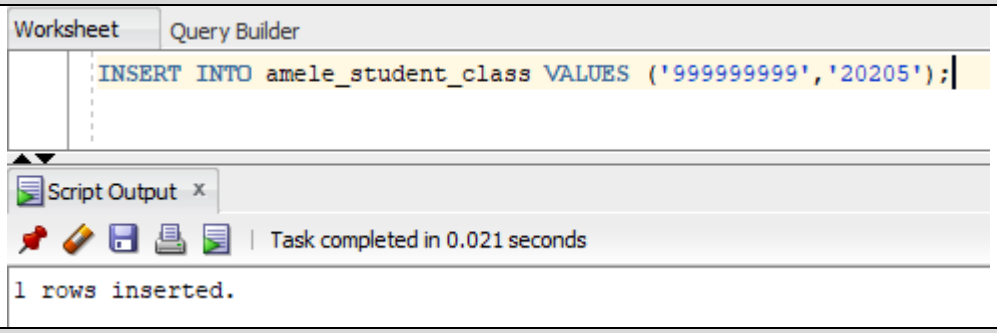


Do the questions in the order in which they appear.You may get error messages which of course is valid

3A	**Disable** the foreign key constraint to the **student** table



3B	**Insert** a rows of data into the **student_class** table such that it would violate the foreign key constraint if the above constraint to the student table was enabled



3C	**Enable** the foreign key constraint

Worksheet | Query Builder

```
ALTER TABLE amele_student_class ENABLE CONSTRAINT amele_stdclass_ssn_fk;
```

Script Output | Task completed in 0.066 seconds

```
Error starting at line : 1 in command -
ALTER TABLE amele_student_class ENABLE CONSTRAINT amele_stdclass_ssn_fk
Error report -
SQL Error: ORA-02298: cannot validate (CSUS.AMELE_STDCLASS_SSN_FK) - parent keys not found
02298. 00000 - "cannot validate (%s.%s) - parent keys not found"
*Cause:    an alter table validating constraint failed because the table has
           child records.
*Action:   Obvious
```

Do the questions in the order in which they appear. You may get error messages which of course is valid

4A	**Delete** the data from the student_class table

Worksheet | Query Builder

```
DELETE FROM amele_student_class;
```

Script Output | Task completed in 0.029 seconds

```
4 rows deleted.
```

4B	**Truncate** the student table

Worksheet | Query Builder

```
TRUNCATE TABLE amele_student;
```

Script Output | Task completed in 0.05 secc

```
table AMELE_STUDENT truncated.
```

4C	**drop** the index that you created on the student table

Worksheet | Query Builder

```
DROP INDEX amele_class_idx;
```

Script Output | Task completed in 0.046 seconds

```
index AMELE_CLASS_IDX dropped.
```

4D	**Drop** the foreign key constraints

Worksheet | Query Builder

```
ALTER TABLE amele_student_class DROP CONSTRAINT amele_stdclass_ssn_fk;
ALTER TABLE amele_student_class DROP CONSTRAINT amele_stdclass_clcode_fk;
```

Script Output | Task completed in 0.029 seconds

```
table AMELE_STUDENT_CLASS altered.
table AMELE_STUDENT_CLASS altered.
```

4E **Drop** the student table.

Worksheet | Query Builder

```
DROP TABLE amele_student;
```

Script Output | Task completed in 0.106 seconds

```
table AMELE_STUDENT dropped.
```