

## Insert

Re-create the candidate table as such:

### Candidate

Candidate\_id (Primary key)  
First\_name (UK composite)  
Last\_Name (UK composite)  
DOB  
Salary (check constraint Salary > 10000 and less than 50000)  
Party\_id (FK)

Re-create the Party table as such:

### Party

Party\_id (Primary key)  
PartyDesc (Unique key)

**You may get an error message on some of these and it may be correct**

1) Create the above tables with all the proper constraints. Name all the constraints. All the constraints should be in the CREATE TABLE statement.

```
DROP TABLE Candidate_AEC;
DROP TABLE Party_AEC;

CREATE TABLE Candidate_AEC
(
  Candidate_id NUMBER CONSTRAINT candidate_aec_candidate_id_pk PRIMARY KEY,
  First_name VARCHAR2(20),
  Last_name VARCHAR2(20),
  DOB DATE,
  Salary NUMBER CONSTRAINT candidate_aec_salary_ck CHECK (salary>10000 AND salary<50000),
  Party_id NUMBER CONSTRAINT candidate_aec_party_id_fk REFERENCES party_aec,
  CONSTRAINT candidate_aec_fname_lname_uk UNIQUE (First_name, Last_name)
);

CREATE TABLE Party_AEC
(
  Party_id NUMBER CONSTRAINT party_aec_party_id_pk PRIMARY KEY,
  PartyDesc VARCHAR2(30) CONSTRAINT party_aec_partyDesc_uk UNIQUE
);
```

Script Output x

Task completed in 0.055 seconds

table PARTY\_AEC created.  
table CANDIDATE\_AEC created.

```
DESC Candidate_AEC;
SELECT table_name, constraint_name, constraint_type FROM user_constraints WHERE table_name='CANDIDATE_AEC';
```

```
DESC Candidate_AEC
Name          Null      Type
-----
CANDIDATE_ID NOT NULL  NUMBER
FIRST_NAME                VARCHAR2(20)
LAST_NAME                 VARCHAR2(20)
DOB                      DATE
SALARY                   NUMBER
PARTY_ID                 NUMBER
```

	TABLE_NAME	CONSTRAINT_NAME	CONSTRAINT_TYPE
1	CANDIDATE_AEC	CANDIDATE_AEC_SALARY_CK	C
2	CANDIDATE_AEC	CANDIDATE_AEC_CANDIDATE_ID_PK	P
3	CANDIDATE_AEC	CANDIDATE_AEC_FNAME_LNAME_UK	U
4	CANDIDATE_AEC	CANDIDATE_AEC_PARTY_ID_FK	R

```
DESC Party_AEC;
SELECT table_name, constraint_name, constraint_type FROM user_constraints WHERE table_name='PARTY_AEC';
```

```
DESC Party_AEC
Name          Null      Type
-----
PARTY_ID NOT NULL  NUMBER
PARTYDESC                VARCHAR2(30)
```

	TABLE_NAME	CONSTRAINT_NAME	CONSTRAINT_TYPE
1	PARTY_AEC	PARTY_AEC_PARTY_ID_PK	P
2	PARTY_AEC	PARTY_AEC_PARTYDESC_UK	U

2) Insert two rows into each of the above tables. You have to populate the tables in the proper order (You should not get an error for this)

**NOTE: Must insert rows into party table first before inserting rows into candidate.**

```
INSERT INTO Party_aec VALUES (100,'Democrat');  
INSERT INTO Party_aec VALUES (200,'Republican');  
SELECT * FROM party_aec;
```

Script Output x Query Result x  
Task completed in 0.03 seconds  
1 rows inserted.  
1 rows inserted.

Script Output x Query Result x  
SQL | All Rows Fetched: 2

	PARTY_ID	PARTYDESC
1	100	Democrat
2	200	Republican

```
INSERT INTO Candidate_aec VALUES (111,'Joe','Biden','01-FEB-1960',20000,100);  
INSERT INTO Candidate_aec VALUES (111,'Donald','Trump','13-FEB-1980',45000,200);  
SELECT * FROM candidate_aec;
```

Script Output x Query Result x  
Task completed in 0.03 seconds  
1 rows inserted.  
1 rows inserted.

Script Output x Query Result x  
SQL | All Rows Fetched: 2 in 0.047 seconds

	CANDIDATE_ID	FIRST_NAME	LAST_NAME	DOB	SALARY	PARTY_ID
1	111	Joe	Biden	01-FEB-60	20000	100
2	222	Donald	Trump	13-FEB-80	45000	200

3) Insert two rows into the Candidate table. Populate all the fields. In one row insert the date using the (mmddyy) format. In another one insert it using (ddyyymm) format.

```
INSERT INTO Candidate_aec VALUES (333,'Kamala','Harris',(TO_DATE('102064','MMDDYY')),30000,100);  
INSERT INTO Candidate_aec VALUES (444,'Mike','Pence',(TO_DATE('078506','DDYYMM')),48000,200);  
SELECT * FROM candidate_aec;
```

Script Output x Query Result x  
Task completed in 0.025 seconds

1 rows inserted.  
1 rows inserted.

Script Output x Query Result x  
All Rows Fetched: 4 in 0.032 seconds

	CANDIDATE_ID	FIRST_NAME	LAST_NAME	DOB	SALARY	PARTY_ID
1	111	Joe	Biden	01-FEB-60	20000	100
2	222	Donald	Trump	13-FEB-80	45000	200
3	333	Kamala	Harris	20-OCT-64	30000	100
4	444	Mike	Pence	07-JUN-85	48000	200

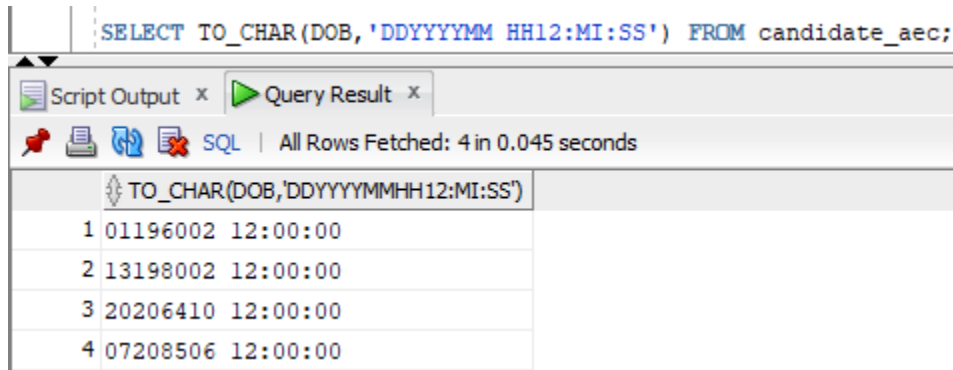
4) Display the DOB information from the candidate table in mmddyyyy format

```
SELECT TO_CHAR(DOB,'MMDDYYYY') FROM candidate_aec;
```

Script Output x Query Result x  
All Rows Fetched: 4 in 0.044 seconds

	TO_CHAR(DOB,'MMDDYYYY')
1	02011960
2	02131980
3	10202064
4	06072085

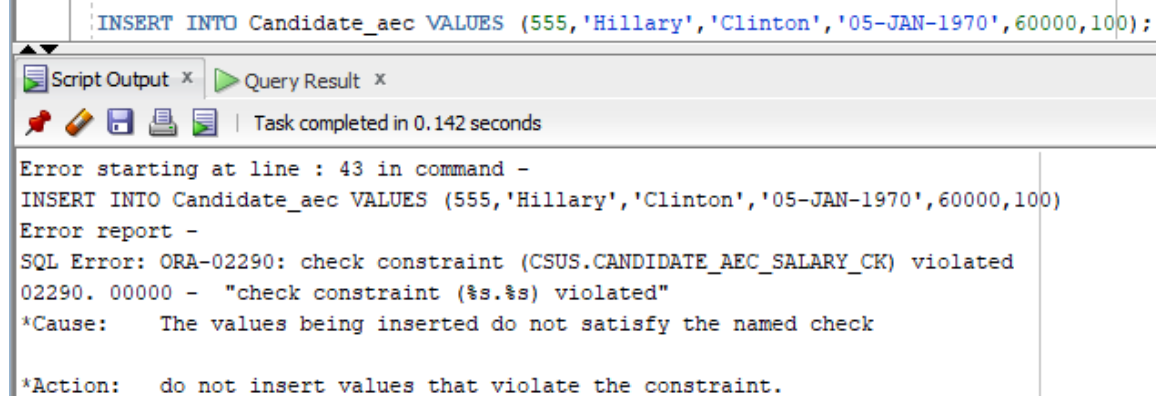
5) Display the DOB information from the candidate table in ddyyymm hh12:mi:ss format



The screenshot shows a SQL Developer window with a query executed: `SELECT TO_CHAR(DOB, 'DDYYYYMM HH12:MI:SS') FROM candidate_aec;`. The 'Query Result' tab is active, displaying 4 rows of data. The first column is the formatted date and time, and the second column is an implicit index for the rows.

TO_CHAR(DOB,'DDYYYYMMHH12:MI:SS')	
1 01196002 12:00:00	
2 13198002 12:00:00	
3 20206410 12:00:00	
4 07208506 12:00:00	

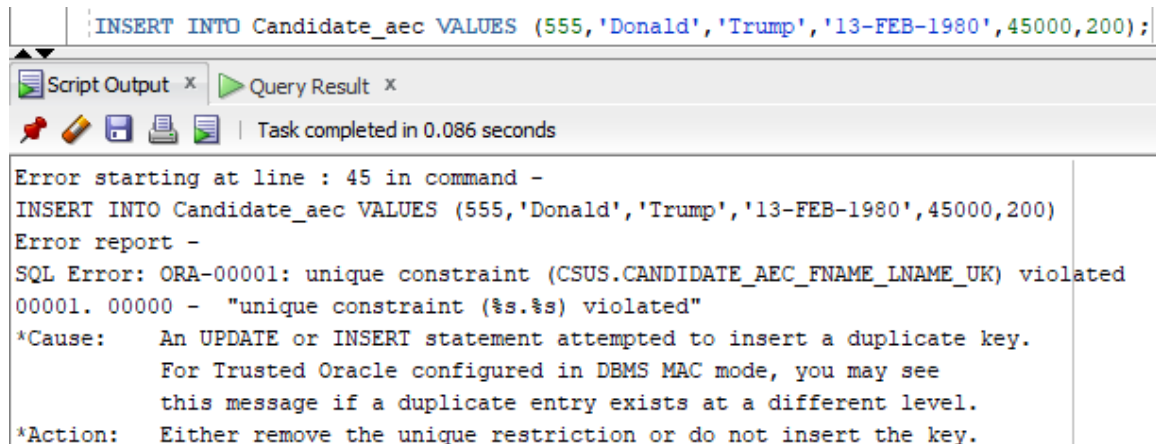
6) Insert another row into candidate table such that it violates the check constraint



The screenshot shows a SQL Developer window with an `INSERT` statement executed: `INSERT INTO Candidate_aec VALUES (555, 'Hillary', 'Clinton', '05-JAN-1970', 60000, 100);`. The 'Script Output' tab is active, displaying an error message indicating a check constraint violation.

```
Error starting at line : 43 in command -
INSERT INTO Candidate_aec VALUES (555, 'Hillary', 'Clinton', '05-JAN-1970', 60000, 100)
Error report -
SQL Error: ORA-02290: check constraint (CSUS.CANDIDATE_AEC_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.
```

7) Insert another row into party such that it violates the Unique constraint



The screenshot shows a SQL Developer window with an `INSERT` statement executed: `INSERT INTO Candidate_aec VALUES (555, 'Donald', 'Trump', '13-FEB-1980', 45000, 200);`. The 'Script Output' tab is active, displaying an error message indicating a unique constraint violation.

```
Error starting at line : 45 in command -
INSERT INTO Candidate_aec VALUES (555, 'Donald', 'Trump', '13-FEB-1980', 45000, 200)
Error report -
SQL Error: ORA-00001: unique constraint (CSUS.CANDIDATE_AEC_FNAME_LNAME_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.
```

8) Display the constraint information on both tables using the system table  
user\_constraints

```
SELECT table_name, constraint_name, constraint_type FROM user_constraints WHERE table_name='CANDIDATE_AEC';  
SELECT table_name, constraint_name, constraint_type FROM user_constraints WHERE table_name='PARTY_AEC';
```

Script Output x Query Result x

SQL | All Rows Fetched: 4 in 0.037 seconds

	TABLE_NAME	CONSTRAINT_NAME	CONSTRAINT_TYPE
1	CANDIDATE_AEC	CANDIDATE_AEC_SALARY_CK	C
2	CANDIDATE_AEC	CANDIDATE_AEC_CANDIDATE_ID_PK	P
3	CANDIDATE_AEC	CANDIDATE_AEC_FNAME_LNAME_UK	U
4	CANDIDATE_AEC	CANDIDATE_AEC_PARTY_ID_FK	R

Script Output x Query Result x

SQL | All Rows Fetched: 2 in 0.039 seconds

	TABLE_NAME	CONSTRAINT_NAME	CONSTRAINT_TYPE
1	PARTY_AEC	PARTY_AEC_PARTY_ID_PK	P
2	PARTY_AEC	PARTY_AEC_PARTYDESC_UK	U