

SQL> @ C:\Users\likhi\Desktop\assign1-104.sql

SP2-0158: unknown SET option ":"

SQL>

SQL> prompt DROPPING THE PREVIOUSLY CREATED TABLES

DROPPING THE PREVIOUSLY CREATED TABLES

SQL>

SQL> DROP TABLE sungby;

DROP TABLE sungby

*

ERROR at line 1:

ORA-00942: table or view does not exist

SQL> DROP TABLE song;

DROP TABLE song

*

ERROR at line 1:

ORA-00942: table or view does not exist

SQL> DROP TABLE artist;

DROP TABLE artist

*

ERROR at line 1:

ORA-00942: table or view does not exist

SQL> DROP TABLE album;

DROP TABLE album

*

ERROR at line 1:

ORA-00942: table or view does not exist

SQL> DROP TABLE studio;

DROP TABLE studio

*

ERROR at line 1:

ORA-00942: table or view does not exist

SQL> DROP TABLE musician;

DROP TABLE musician

*

ERROR at line 1:

ORA-00942: table or view does not exist

SQL>

SQL> prompt CREATING THE TABLES

CREATING THE TABLES

SQL>

```
SQL> CREATE TABLE musician(  
  2 mid VARCHAR(6) PRIMARY KEY,  
  3 mname VARCHAR(20),  
  4 birthplace VARCHAR(25));
```

Table created.

```
SQL>  
SQL> DESC musician;
```

| Name | Null? | Type |
|------------|----------|--------------|
| MID | NOT NULL | VARCHAR2(6) |
| MNAME | | VARCHAR2(20) |
| BIRTHPLACE | | VARCHAR2(25) |

```
SQL>  
SQL> CREATE TABLE studio(  
  2 stname VARCHAR(20) PRIMARY KEY,  
  3 staddr VARCHAR(25),  
  4 stdphn NUMBER(14));
```

Table created.

```
SQL>  
SQL> DESC studio;
```

| Name | Null? | Type |
|--------|----------|--------------|
| STNAME | NOT NULL | VARCHAR2(20) |
| STADDR | | VARCHAR2(25) |
| STDPHN | | NUMBER(14) |

```
SQL>  
SQL> CREATE TABLE album(  
  2 alname VARCHAR(20),  
  3 alid VARCHAR(6) PRIMARY KEY,  
  4 release_yr DATE CHECK(EXTRACT(year from release_yr) >= 1945),  
  5 no_of_tracks NUMBER(3) NOT NULL,  
  6 stname VARCHAR(20) REFERENCES studio(stname),  
  7 genre VARCHAR(4) CHECK(genre IN('CAR', 'DIV', 'MOV', 'POP')),  
  8 mid VARCHAR(6) REFERENCES musician(mid));
```

Table created.

```
SQL>  
SQL> DESC album;
```

| Name | Null? | Type |
|--------------|----------|--------------|
| ALNAME | | VARCHAR2(20) |
| ALID | NOT NULL | VARCHAR2(6) |
| RELEASE_YR | | DATE |
| NO_OF_TRACKS | NOT NULL | NUMBER(3) |
| STNAME | | VARCHAR2(20) |

| | |
|-------|-------------|
| GENRE | VARCHAR2(4) |
| MID | VARCHAR2(6) |

SQL>

```
SQL> CREATE TABLE artist(
  2 arid VARCHAR(6) PRIMARY KEY,
  3 arname VARCHAR(20),
  4 CONSTRAINT uniq_aname UNIQUE(arname));
```

Table created.

SQL>

SQL> DESC artist;

| Name | Null? | Type |
|--------|----------|--------------|
| ARID | NOT NULL | VARCHAR2(6) |
| ARNAME | | VARCHAR2(20) |

SQL>

```
SQL> CREATE TABLE song(
  2 alid VARCHAR(6),
  3 track_no VARCHAR(6),
  4 sname VARCHAR(20),
  5 length NUMBER(3),
  6 genre VARCHAR(4),
  7 PRIMARY KEY(alid, track_no),
  8 CONSTRAINT fk_alid FOREIGN KEY(alid) REFERENCES album(alid),
  9 CONSTRAINT chk_genre CHECK(genre IN('PHI', 'REL', 'LOV', 'DEV', 'PAT')),
  10 CONSTRAINT chk_len CHECK(length>7 OR genre<>'PAT'));
```

Table created.

SQL>

SQL> DESC song;

| Name | Null? | Type |
|----------|----------|--------------|
| ALID | NOT NULL | VARCHAR2(6) |
| TRACK_NO | NOT NULL | VARCHAR2(6) |
| SNAME | | VARCHAR2(20) |
| LENGTH | | NUMBER(3) |
| GENRE | | VARCHAR2(4) |

SQL>

```
SQL> CREATE TABLE sungby(
  2 alid VARCHAR(6),
  3 track_no VARCHAR(6),
  4 arid VARCHAR(6) REFERENCES artist(arid),
  5 recording_date DATE,
  6 PRIMARY KEY(alid, track_no, arid),
  7 CONSTRAINT fk_sungby FOREIGN KEY(alid, track_no) REFERENCES song(alid, track_no));
```

Table created.

SQL>

SQL> DESC sungby;

| Name | Null? | Type |
|----------------|----------|-------------|
| ALID | NOT NULL | VARCHAR2(6) |
| TRACK_NO | NOT NULL | VARCHAR2(6) |
| ARID | NOT NULL | VARCHAR2(6) |
| RECORDING_DATE | | DATE |

SQL>

SQL> prompt DESCRIBING THE TABLES

DESCRIBING THE TABLES

SQL>

SQL> DESC musician;

| Name | Null? | Type |
|------------|----------|--------------|
| MID | NOT NULL | VARCHAR2(6) |
| MNAME | | VARCHAR2(20) |
| BIRTHPLACE | | VARCHAR2(25) |

SQL> DESC studio;

| Name | Null? | Type |
|--------|----------|--------------|
| STNAME | NOT NULL | VARCHAR2(20) |
| STADDR | | VARCHAR2(25) |
| STDPHN | | NUMBER(14) |

SQL> DESC album;

| Name | Null? | Type |
|--------------|----------|--------------|
| ALNAME | | VARCHAR2(20) |
| ALID | NOT NULL | VARCHAR2(6) |
| RELEASE_YR | | DATE |
| NO_OF_TRACKS | NOT NULL | NUMBER(3) |
| STNAME | | VARCHAR2(20) |
| GENRE | | VARCHAR2(4) |
| MID | | VARCHAR2(6) |

SQL> DESC artist;

| Name | Null? | Type |
|--------|----------|--------------|
| ARID | NOT NULL | VARCHAR2(6) |
| ARNAME | | VARCHAR2(20) |

SQL> DESC song;

| Name | Null? | Type |
|----------|----------|--------------|
| ALID | NOT NULL | VARCHAR2(6) |
| TRACK_NO | NOT NULL | VARCHAR2(6) |
| SNAME | | VARCHAR2(20) |
| LENGTH | | NUMBER(3) |

GENRE VARCHAR2(4)

SQL> DESC sungby;

| Name | Null? | Type |
|----------------|----------|-------------|
| ALID | NOT NULL | VARCHAR2(6) |
| TRACK_NO | NOT NULL | VARCHAR2(6) |
| ARID | NOT NULL | VARCHAR2(6) |
| RECORDING_DATE | | DATE |

SQL>

SQL> prompt INSERTING VALUES INTO THE TABLES

INSERTING VALUES INTO THE TABLES

SQL>

SQL> INSERT INTO musician VALUES('m03', 'calvin', 'usa');

1 row created.

SQL> INSERT INTO musician VALUES('m01', 'miguel', 'mexico');

1 row created.

SQL> INSERT INTO musician VALUES('m02', 'elaine', 'france');

1 row created.

SQL>

SQL> INSERT INTO studio VALUES('big machine', '122 pinwheel road, texas', 7445578787);

1 row created.

SQL> INSERT INTO studio VALUES('yg', 'seoul circle, s.korea', 4445578787);

1 row created.

SQL> INSERT INTO studio VALUES('sm', 'shibuya, tokyo, japan', 3445578787);

1 row created.

SQL>

SQL> INSERT INTO album VALUES('square up', 'al01', '27-jun-2019', 4, 'yg', 'POP', 'm03');

1 row created.

SQL> INSERT INTO album VALUES('lionheart', 'al11', '23-may-2017', 10, 'sm', 'POP', 'm02');

1 row created.

SQL> INSERT INTO album VALUES('red', 'al04', '12-nov-2012', 13, 'big machine', 'MOV', 'm03');

1 row created.

SQL> INSERT INTO album VALUES('1989', 'al05', '2-oct-2015', 13, 'big machine', 'POP', 'm01');

1 row created.

SQL>

SQL> INSERT INTO artist VALUES('a01', 'taylor');

1 row created.

SQL> INSERT INTO artist VALUES('a099', 'jennie');

1 row created.

SQL> INSERT INTO artist VALUES('a07', 'yuri');

1 row created.

SQL>

SQL> INSERT INTO song VALUES('al04', 't01', '22', 212, 'PHI');

1 row created.

SQL> INSERT INTO song VALUES('al05', 't01', 'blank space', 221, 'LOV');

1 row created.

SQL> INSERT INTO song VALUES('al04', 't04', 'safe', 271, 'PAT');

1 row created.

SQL>

SQL> INSERT INTO sungby VALUES('al05', 't01', 'a01', '27-sep-2014');

1 row created.

SQL> INSERT INTO sungby VALUES('al04', 't04', 'a01', '23-aug-2013');

1 row created.

SQL> INSERT INTO sungby VALUES('al04', 't01', 'a01', '9-may-2009');

1 row created.

SQL>

SQL> prompt DISPLAYING THE TABLE CONTENTS

DISPLAYING THE TABLE CONTENTS

SQL>

SQL> SELECT * FROM musician;

| MID | MNAME | BIRTHPLACE |
|-----|--------|------------|
| m03 | calvin | usa |

| | | |
|-----|--------|--------|
| m01 | miguel | mexico |
| m02 | elaine | france |

SQL> SELECT * FROM studio;

| STNAME | STADDR | STDPHN |
|-------------|--------------------------|------------|
| ----- | | |
| big machine | 122 pinwheel road, texas | 7445578787 |
| yg | seoul circle, s.korea | 4445578787 |
| sm | shibuya, tokyo, japan | 3445578787 |

SQL> SELECT * FROM album;

| ALNAME | ALID | RELEASE_Y | NO_OF_TRACKS | STNAME | GENR |
|------------------|------|-----------|----------------|--------|------|
| ----- | | | | | |
| MID | | | | | |
| ----- | | | | | |
| square up m03 | al01 | 27-JUN-19 | 4 yg | POP | |
| lionheart m02 | al11 | 23-MAY-17 | 10 sm | POP | |
| red m03 | al04 | 12-NOV-12 | 13 big machine | MOV | |

| ALNAME | ALID | RELEASE_Y | NO_OF_TRACKS | STNAME | GENR |
|-------------|------|-----------|----------------|--------|------|
| ----- | | | | | |
| MID | | | | | |
| ----- | | | | | |
| 1989 m01 | al05 | 02-OCT-15 | 13 big machine | POP | |

SQL> SELECT * FROM artist;

| ARID | ARNAME |
|-------|--------|
| ----- | |
| a01 | taylor |
| a099 | jennie |
| a07 | yuri |

SQL> SELECT * FROM song;

| ALID | TRACK_ | SNAME | LENGTH | GENR |
|-------|--------|-------------|--------|------|
| ----- | | | | |
| al04 | t01 | 22 | 212 | PHI |
| al05 | t01 | blank space | 221 | LOV |
| al04 | t04 | safe | 271 | PAT |

SQL> SELECT * FROM sungby;

ALID TRACK_ARID RECORDING

```
-----
al05 t01 a01 27-SEP-14
al04 t04 a01 23-AUG-13
al04 t01 a01 09-MAY-09
```

```
SQL>
SQL> prompt 1)The genre for Album can be generally categorized as CAR for Carnatic, DIV for Divine, MOV for
Movies, POP for Pop songs.
1)The genre for Album can be generally categorized as CAR for Carnatic, DIV for Divine, MOV for Movies, POP f
or Pop songs.
SQL>
SQL> SELECT * FROM album;
```

| ALNAME | ALID | RELEASE_Y | NO_OF_TRACKS | STNAME | GENR |
|------------------|------|-----------|----------------|--------|------|
| ----- | | | | | |
| MID | | | | | |
| ----- | | | | | |
| square up m03 | al01 | 27-JUN-19 | 4 yg | POP | |
| lionheart m02 | al11 | 23-MAY-17 | 10 sm | POP | |
| red m03 | al04 | 12-NOV-12 | 13 big machine | MOV | |

| ALNAME | ALID | RELEASE_Y | NO_OF_TRACKS | STNAME | GENR |
|-------------|------|-----------|----------------|--------|------|
| ----- | | | | | |
| MID | | | | | |
| ----- | | | | | |
| 1989 m01 | al05 | 02-OCT-15 | 13 big machine | POP | |

```
SQL> INSERT INTO album VALUES('square up', 'al01', '01-dec-2019', 4, 'yg', 'RAP', 'm03');
INSERT INTO album VALUES('square up', 'al01', '01-dec-2019', 4, 'yg', 'RAP', 'm03')
*
ERROR at line 1:
ORA-02290: check constraint (SYSTEM.SYS_C0014020) violated
```

```
SQL>
SQL> prompt 2)The genre for Song can be PHI for philosophical, REL for relationship, LOV for duet, DEV for dev
otional, PAT for patriotic type of songs.
2)The genre for Song can be PHI for philosophical, REL for relationship, LOV for duet, DEV for devotional, PAT f
or patriotic type of songs.
SQL>
SQL> SELECT * FROM song;
```


| ALID | TRACK_ | SNAME | LENGTH | GENR |
|------|--------|-------------|--------|------|
| al04 | t01 | 22 | 212 | PHI |
| al05 | t01 | blank space | 221 | LOV |
| al04 | t04 | safe | 271 | PAT |

```
SQL> INSERT INTO song VALUES('al01', 't04', 'solo', 233, 'JAZZ');
INSERT INTO song VALUES('al01', 't04', 'solo', 233, 'JAZZ')
```

*

ERROR at line 1:

ORA-02290: check constraint (SYSTEM.CHK_GENRE) violated

SQL>

SQL> prompt 3)The artist ID, album ID, musician ID, and track number, studio name are used to retrieve tuple(s) individually from respective relations.

3)The artist ID, album ID, musician ID, and track number, studio name are used to retrieve tuple(s) individually from respective relations.

SQL>

SQL> SELECT * FROM artist;

| ARID | ARNAME |
|------|--------|
| a01 | taylor |
| a099 | jennie |
| a07 | yuri |

```
SQL> INSERT INTO artist VALUES('a01', 'mark');
INSERT INTO artist VALUES('a01', 'mark')
```

*

ERROR at line 1:

ORA-00001: unique constraint (SYSTEM.SYS_C0014024) violated

SQL> SELECT * FROM album;

| ALNAME | ALID | RELEASE_Y | NO_OF_TRACKS | STNAME | GENR |
|-----------|------|-----------|----------------|--------|------|
| square up | al01 | 27-JUN-19 | 4 yg | POP | |
| m03 | | | | | |
| lionheart | al11 | 23-MAY-17 | 10 sm | POP | |
| m02 | | | | | |
| red | al04 | 12-NOV-12 | 13 big machine | MOV | |
| m03 | | | | | |

MID

| | | | | |
|------|------|-----------|----------------|-----|
| 1989 | al05 | 02-OCT-15 | 13 big machine | POP |
|------|------|-----------|----------------|-----|

m01

```
SQL> INSERT INTO album VALUES('bigbang', 'al01', 2019, 4, 'yg', 'POP', 'm03');
INSERT INTO album VALUES('bigbang', 'al01', 2019, 4, 'yg', 'POP', 'm03')
*
```

ERROR at line 1:
ORA-00932: inconsistent datatypes: expected DATE got NUMBER

```
SQL> SELECT * FROM musician;
```

| MID | MNAME | BIRTHPLACE |
|-------|--------|------------|
| ----- | | |
| m03 | calvin | usa |
| m01 | miguel | mexico |
| m02 | elaine | france |

```
SQL> INSERT INTO musician VALUES('m03', 'canary', 'usa');
INSERT INTO musician VALUES('m03', 'canary', 'usa')
*
```

ERROR at line 1:
ORA-00001: unique constraint (SYSTEM.SYS_C0014016) violated

```
SQL> SELECT * FROM sungby;
```

| ALID | TRACK_ | ARID | RECORDING |
|-------|--------|------|-----------|
| ----- | | | |
| al05 | t01 | a01 | 27-SEP-14 |
| al04 | t04 | a01 | 23-AUG-13 |
| al04 | t01 | a01 | 09-MAY-09 |

```
SQL> INSERT INTO sungby VALUES('al04', 't04', 'a01', '2-dec-2018');
INSERT INTO sungby VALUES('al04', 't04', 'a01', '2-dec-2018')
*
```

ERROR at line 1:
ORA-00001: unique constraint (SYSTEM.SYS_C0014030) violated

```
SQL> SELECT * FROM studio;
```

| STNAME | STADDR | STDPHN |
|-------------|--------------------------|------------|
| ----- | | |
| big machine | 122 pinwheel road, texas | 7445578787 |
| yg | seoul circle, s.korea | 4445578787 |
| sm | shibuya, tokyo, japan | 3445578787 |

```
SQL> INSERT INTO studio VALUES('sm', 'big ben, london, uk', 3445578787);
```

```
INSERT INTO studio VALUES('sm', 'big ben, london, uk', 3445578787)
```

```
*
```

```
ERROR at line 1:
```

```
ORA-00001: unique constraint (SYSTEM.SYS_C0014017) violated
```

```
SQL>
```

```
SQL> prompt 6)It was learnt that the artists do not have the same name.
```

```
6)It was learnt that the artists do not have the same name.
```

```
SQL>
```

```
SQL> SELECT * FROM artist;
```

```
ARID  ARNAME
```

```
-----
```

```
a01  taylor
```

```
a099 jennie
```

```
a07  yuri
```

```
SQL> INSERT INTO artist VALUES('a23', 'taylor');
```

```
INSERT INTO artist VALUES('a23', 'taylor')
```

```
*
```

```
ERROR at line 1:
```

```
ORA-00001: unique constraint (SYSTEM.UNIQ_ANAME) violated
```

```
SQL>
```

```
SQL> prompt 7)The number of tracks in an album must always be recorded.
```

```
7)The number of tracks in an album must always be recorded.
```

```
SQL>
```

```
SQL> SELECT * FROM album;
```

```
ALNAME          ALID  RELEASE_Y NO_OF_TRACKS STNAME          GENR
```

```
-----
```

```
MID
```

```
-----
```

```
square up      al01  27-JUN-19      4 yg          POP
```

```
m03
```

```
lionheart      al11  23-MAY-17      10 sm         POP
```

```
m02
```

```
red            al04  12-NOV-12      13 big machine MOV
```

```
m03
```

```
ALNAME          ALID  RELEASE_Y NO_OF_TRACKS STNAME          GENR
```

```
-----
```

```
MID
```

```
-----
```

```
1989           al05  02-OCT-15      13 big machine POP
```

```
m01
```

```
SQL> INSERT INTO album VALUES('square up', 'al01', '01-dec-2019', NULL, 'yg', 'POP', 'm03');
INSERT INTO album VALUES('square up', 'al01', '01-dec-2019', NULL, 'yg', 'POP', 'm03')
```

```

*

```

```
ERROR at line 1:
ORA-01400: cannot insert NULL into ("SYSTEM"."ALBUM"."NO_OF_TRACKS")
```

```
SQL>
SQL> prompt 8)The length of each song must be greater than 7 for PAT songs.
8)The length of each song must be greater than 7 for PAT songs.
SQL>
SQL> SELECT * FROM song;
```

| ALID | TRACK_ | SNAME | LENGTH | GENR |
|------|--------|-------------|--------|------|
| al04 | t01 | 22 | 212 | PHI |
| al05 | t01 | blank space | 221 | LOV |
| al04 | t04 | safe | 271 | PAT |

```
SQL> INSERT INTO song VALUES('al04', 't04', 'safe', 5, 'PAT');
INSERT INTO song VALUES('al04', 't04', 'safe', 5, 'PAT')
*
```

```
ERROR at line 1:
ORA-02290: check constraint (SYSTEM.CHK_LEN) violated
```

```
SQL>
SQL> prompt 9)The year of release of an album can not be earlier than 1945.
9)The year of release of an album can not be earlier than 1945.
SQL>
SQL> SELECT * FROM album;
```

| ALNAME | ALID | RELEASE_Y | NO_OF_TRACKS | STNAME | GENR |
|------------------|------|-----------|----------------|--------|------|
| ----- | | | | | |
| MID | | | | | |
| ----- | | | | | |
| square up m03 | al01 | 27-JUN-19 | 4 yg | POP | |
| lionheart m02 | al11 | 23-MAY-17 | 10 sm | POP | |
| red m03 | al04 | 12-NOV-12 | 13 big machine | MOV | |

| ALNAME | ALID | RELEASE_Y | NO_OF_TRACKS | STNAME | GENR |
|--------|------|-----------|----------------|--------|------|
| ----- | | | | | |
| MID | | | | | |
| ----- | | | | | |
| 1989 | al05 | 02-OCT-15 | 13 big machine | POP | |

m01

```
SQL> INSERT INTO album VALUES('green', 'al05', '8-feb-1922', 13, 'big machine', 'POP', 'm01');
INSERT INTO album VALUES('green', 'al05', '8-feb-1922', 13, 'big machine', 'POP', 'm01')
*
```

ERROR at line 1:

ORA-02290: check constraint (SYSTEM.SYS_C0014019) violated

SQL>

SQL> prompt 10)It is necessary to represent the gender of an artist in the table.

10)It is necessary to represent the gender of an artist in the table.

SQL>

SQL> DESC artist;

| Name | Null? | Type |
|--------|----------|--------------|
| ARID | NOT NULL | VARCHAR2(6) |
| ARNAME | | VARCHAR2(20) |

SQL> ALTER TABLE artist ADD gender VARCHAR(20);

Table altered.

SQL> DESC artist;

| Name | Null? | Type |
|--------|----------|--------------|
| ARID | NOT NULL | VARCHAR2(6) |
| ARNAME | | VARCHAR2(20) |
| GENDER | | VARCHAR2(20) |

SQL>

SQL> prompt 12)The phone number of each studio should be different.

12)The phone number of each studio should be different.

SQL>

SQL> ALTER TABLE studio ADD CONSTRAINT uniq_phn UNIQUE(stdphn);

Table altered.

SQL> DESC studio;

| Name | Null? | Type |
|--------|----------|--------------|
| STNAME | NOT NULL | VARCHAR2(20) |
| STADDR | | VARCHAR2(25) |
| STDPHN | | NUMBER(14) |

SQL> SELECT * FROM studio;

| STNAME | STADDR | STDPHN |
|-------------|--------------------------|------------|
| big machine | 122 pinwheel road, texas | 7445578787 |
| yg | seoul circle, s.korea | 4445578787 |

sm shibuya, tokyo, japan 3445578787

```
SQL> INSERT INTO studio VALUES('sm', 'shibuya, tokyo, japan', 4445578787);
INSERT INTO studio VALUES('sm', 'shibuya, tokyo, japan', 4445578787)
*
```

ERROR at line 1:
ORA-00001: unique constraint (SYSTEM.SYS_C0014017) violated

```
SQL>
SQL> prompt 13)An artist who sings a song for a particular track of an album can not be recorded without the record_date.
13)An artist who sings a song for a particular track of an album can not be recorded without the record_date.
SQL>
SQL> ALTER TABLE sungby MODIFY recording_date DATE NOT NULL;
```

Table altered.

```
SQL> DESC sungby;
Name                               Null?  Type
-----
ALID                               NOT NULL VARCHAR2(6)
TRACK_NO                           NOT NULL VARCHAR2(6)
ARID                               NOT NULL VARCHAR2(6)
RECORDING_DATE                     NOT NULL DATE
```

```
SQL> SELECT * FROM sungby;
```

```
ALID TRACK_ ARID RECORDING
-----
al05 t01 a01 27-SEP-14
al04 t04 a01 23-AUG-13
al04 t01 a01 09-MAY-09
```

```
SQL> INSERT INTO sungby VALUES('al04', 't01', 'a01', NULL);
INSERT INTO sungby VALUES('al04', 't01', 'a01', NULL)
*
ERROR at line 1:
ORA-01400: cannot insert NULL into ("SYSTEM"."SUNGBY"."RECORDING_DATE")
```

```
SQL>
SQL> prompt 14)It was decided to include the genre NAT for nature songs.
14)It was decided to include the genre NAT for nature songs.
SQL>
SQL> SELECT * FROM song;
```

```
ALID TRACK_ SNAME          LENGTH GENR
-----
al04 t01 22              212 PHI
al05 t01 blank space      221 LOV
al04 t04 safe            271 PAT
```

```
SQL> ALTER TABLE song DROP CONSTRAINT chk_genre;
```

Table altered.

```
SQL> ALTER TABLE song ADD CONSTRAINT chk_genre CHECK(genre IN('PHI', 'REL', 'LOV', 'DEV', 'PAT', 'NAT'));
```

Table altered.

```
SQL> INSERT INTO song VALUES('al01', 't04', 'solo', 233, 'NAT');
```

1 row created.

```
SQL> SELECT * FROM song;
```

| ALID | TRACK_ | SNAME | LENGTH | GENR |
|------|--------|-------------|--------|------|
| al04 | t01 | 22 | 212 | PHI |
| al05 | t01 | blank space | 221 | LOV |
| al04 | t04 | safe | 271 | PAT |
| al01 | t04 | solo | 233 | NAT |

```
SQL>
```

```
SQL> prompt 15)Due to typo error, there may be a possibility of false information.
```

```
15)Due to typo error, there may be a possibility of false information.
```

```
SQL> REM:Hence while deleting the song information, make sure that all the corresponding information are also deleted.
```

```
SQL>
```

```
SQL> ALTER TABLE sungby DROP CONSTRAINT fk_sungby;
```

Table altered.

```
SQL> ALTER TABLE sungby ADD CONSTRAINT fk_sungby FOREIGN KEY(alid, track_no) REFERENCES song(alid, track_no) ON DELETE CASCADE;
```

Table altered.

```
SQL>
```

```
SQL> SELECT * FROM song;
```

| ALID | TRACK_ | SNAME | LENGTH | GENR |
|------|--------|-------------|--------|------|
| al04 | t01 | 22 | 212 | PHI |
| al05 | t01 | blank space | 221 | LOV |
| al04 | t04 | safe | 271 | PAT |
| al01 | t04 | solo | 233 | NAT |

```
SQL> SELECT * FROM sungby;
```

| ALID | TRACK_ | ARID | RECORDING |
|------|--------|------|-----------|
|------|--------|------|-----------|

```
al05 t01 a01 27-SEP-14
al04 t04 a01 23-AUG-13
al04 t01 a01 09-MAY-09
```

```
SQL> DELETE FROM song WHERE sname='safe';
```

```
1 row deleted.
```

```
SQL> SELECT * FROM song;
```

| ALID | TRACK_ | SNAME | LENGTH | GENR |
|------|--------|-------------|--------|------|
| al04 | t01 | 22 | 212 | PHI |
| al05 | t01 | blank space | 221 | LOV |
| al01 | t04 | solo | 233 | NAT |

```
SQL> SELECT * FROM sungby;
```

| ALID | TRACK_ | ARID | RECORDING |
|------|--------|------|-----------|
| al05 | t01 | a01 | 27-SEP-14 |
| al04 | t01 | a01 | 09-MAY-09 |

```
SQL>
```

```
SQL> SELECT * FROM musician;
```

| MID | MNAME | BIRTHPLACE |
|-----|--------|------------|
| m03 | calvin | usa |
| m01 | miguel | mexico |
| m02 | elaine | france |

```
SQL> SELECT * FROM studio;
```

| STNAME | STADDR | STDPHN |
|-------------|--------------------------|------------|
| big machine | 122 pinwheel road, texas | 7445578787 |
| yg | seoul circle, s.korea | 4445578787 |
| sm | shibuya, tokyo, japan | 3445578787 |

```
SQL> SELECT * FROM album;
```

| ALNAME | ALID | RELEASE_Y | NO_OF_TRACKS | STNAME | GENR |
|-----------|------|-----------|--------------|--------|------|
| square up | al01 | 27-JUN-19 | 4 yg | | POP |
| lionheart | al11 | 23-MAY-17 | 10 sm | | POP |

red al04 12-NOV-12 13 big machine MOV
m03

| ALNAME | ALID | RELEASE_Y | NO_OF_TRACKS | STNAME | GENR |
|--------|------|-----------|--------------|--------|------|
|--------|------|-----------|--------------|--------|------|

MID

1989 al05 02-OCT-15 13 big machine POP
m01

SQL> SELECT * FROM artist;

| ARID | ARNAME | GENDER |
|------|--------|--------|
|------|--------|--------|

a01 taylor
a099 jennie
a07 yuri

SQL> SELECT * FROM song;

| ALID | TRACK_SNAME | LENGTH | GENR |
|------|-------------|--------|------|
|------|-------------|--------|------|

al04 t01 22 212 PHI
al05 t01 blank space 221 LOV
al01 t04 solo 233 NAT

SQL> SELECT * FROM sungby;

| ALID | TRACK_ARID | RECORDING |
|------|------------|-----------|
|------|------------|-----------|

al05 t01 a01 27-SEP-14
al04 t01 a01 09-MAY-09

SQL> spool off