```
SQL> @ C:\Users\gayu\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:
```

SQL> SQL> prompt CREATING THE TABLES CREATING THE TABLES SQL>

ORA-00942: table or view does not exist

# SQL> CREATE TABLE musician( 2 mid VARCHAR(6) PRIMARY KEY, 3 mname VARCHAR(20), 4 birthplace VARCHAR(25)); Table created. SOL> SQL> DESC musician; Name Null? Type BIRTHPLACE VARCHAR2(20) NOT NULL VARCHAR2(6) VARCHAR2(25) SOL> SQL> CREATE TABLE studio( 2 stname VARCHAR(20) PRIMARY KEY, 3 staddr VARCHAR(25), 4 stdphn NUMBER(14)); Table created. SOL> SOL> DESC studio: Name Null? Type STNAME NOT NULL VARCHAR2(20) STADDR VARCHAR2(25) NUMBER(14) STDPHN 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; Null? Type Name ALNAME VARCHAR2(20) ALID RELEASE\_YR NO. OF TEXT 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) SOL> 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 NOT NULL VARCHAR2(6)
NOT NULL VARCHAR2(6)
VARCHAR2(20) ALID TRACK\_NO SNAME LENGTH VARCHAR2(4) **GENRE** SOL> 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;

Null? Type Name

ALID NOT NULL VARCHAR2(6) TRACK\_NO NOT NULL VARCHAR2(6)
ARID NOT NULL VARCHAR2(6)
RECORDING\_DATE DATE

SOL>

SQL> prompt DESCRIBING THE TABLES

DESCRIBING THE TABLES

SQL>

SQL> DESC musician;

Null? Type Name

NOT NULL VARCHAR2(6) MID MNAME VARCHAR2(20) BIRTHPLACE VARCHAR2(25)

SQL> DESC studio;

Name Null? Type

NOT NULL VARCHAR2(20) STNAME

STADDR VARCHAR2(25) **STDPHN** NUMBER(14)

SQL> DESC album;

Null? Type Name

ALNAME VARCHAR2(20)

NOT NULL VARCHAR2(6) ALID

RELEASE\_YR
NO\_OF\_TRACKS

NOT NULL NUMBER(3)

STNAME VARCHAR2(20) **GENRE** VARCHAR2(4) VARCHAR2(6) **MID** 

SQL> DESC artist;

Null? Type Name

NOT NULL VARCHAR2(6) ARID ARNAME VARCHAR2(20)

SQL> DESC song;

Null? Type Name

ALID NOT NULL VARCHAR2(6) NOT NULL VARCHAR2(6) TRACK NO

**SNAME** VARCHAR2(20) LENGTH NUMBER(3)

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.

SOL>

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.

SOL>

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.
SOL>
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.
SOL>
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
SOL>
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				
MIDsquare 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> 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

SOL>

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	
MIDsquare 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

SOL>

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.

SOL>

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 toretrieve tuple(s) in dividually from respective relations.

3)The artist ID, album ID, musician ID, and track number, studio name are used toretrieve 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	
MID  square up m03	al01 27-JUN-19	4 yg	РОР	
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

m01

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

POP

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

seoul circle, s.korea 4445578787 shibuya, tokyo, japan 344557878 yg shibuya, tokyo, japan 3445578787 sm

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;
                ALID RELEASE_Y NO_OF_TRACKS STNAME
                                                                   GENR
ALNAME
MID
----
square up al01 27-JUN-19
                                  4 yg
                                                POP
m03
lionheart
                                  10 sm
             al11 23-MAY-17
                                                 POP
m02
                                13 big machine
red
            al04 12-NOV-12
                                                  MOV
m03
ALNAME ALID RELEASE_Y NO_OF_TRACKS STNAME
                                                                   GENR
MID
            al05 02-OCT-15 13 big machine
1989
                                                   POP
m01
```

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.

SOL>

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-OC

al05 02-OCT-15 13 big machine

POP

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

SOL>

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.

SOL> DESC artist:

Name Null? Type

-----

ARID NOT NULL VARCHAR2(6)
ARNAME VARCHAR2(20)
GENDER VARCHAR2(20)

SOL>

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

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

SOL>

SQL> ALTER TABLE studio ADD CONSTRAINT uniq\_phn UNIQUE(stdphn);

Table altered.

SOL> DESC studio:

Name Null? Type

\_\_\_\_\_\_

STNAME NOT NULL VARCHAR2(20) STADDR VARCHAR2(25)

STDPHN VARCHAR2(23)
NUMBER(14)

SQL> SELECT \* FROM studio;

STNAME STADDR STDPHN

-----

big machine 122 pinwheel road, texas 7445578787

yg seoul circle, s.korea 4445578787

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 recor

13)An artist who sings a song for a particular track of an album can not be recorded without the record date.

SOL>

SQL> ALTER TABLE sungby MODIFY recording date DATE NOT NULL;

Table altered.

SQL> DESC sungby;

Name Null? Type

ALID NOT NULL VARCHAR2(6)

NOT NULL VARCHAR NOT NULL VARCHAR2(6) TRACK\_NO NOT NULL VARCHAR2(6)

ARID NOT NULL DATE RECORDING 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.

SOL>

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	) TR	ACK_ SNAME	LENGTH GENR
al04	t01	22	212 PHI
al05	t01	blank space	221 LOV
al04	t04	safe	271 PAT
al01	t04	solo	233 NAT

SOL>

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 de leted.

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 so ng(alid, track\_no) ON DELETE CASCADE;

Table altered.

SQL>

SQL> SELECT \* FROM song;

ALID TRACK_SNA	AME LENGTH GENR
al04 t01 22	212 PHI
al05 t01 blank space	se 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
SOL>
SQL> SELECT * FROM musician;
MID MNAME BIRTHPLACE
m03calvinusam01miguelmexicom02elainefrance
SQL> SELECT * FROM studio;
STNAME STADDR STDPHN
-----
big machine 122 pinwheel road, texas 7445578787
yg seoul circle, s.korea 4445578787
sm shibuya, tokyo, japan 344557878
          shibuya, tokyo, japan 3445578787
SQL> SELECT * FROM album;
ALNAME ALID RELEASE_Y NO_OF_TRACKS STNAME GENR
MID
square up al01 27-JUN-19 4 yg
                                           POP
m03
```

POP

lionheart all 1 23-MAY-17 10 sm

m02

al04 12-NOV-12 13 big machine MOV red 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