CREATE TABLE students (

student\_id NUMBER(11,0) NOT NULL,

contact\_number NUMBER(11,0) NOT NULL,

student\_fname VARCHAR2(20) NOT NULL,

student\_lname VARCHAR2(20) NOT NULL,

dob DATE NOT NULL,

cumulative\_gpa NUMBER(3,2) NOT NULL,

no\_of\_credits\_earned NUMBER(3,0) NOT NULL,

PRIMARY KEY ( STUDENT\_ID, CONTACT\_NUMBER)

);

CREATE TABLE courses (

course\_id VARCHAR2(20) NOT NULL,

course\_name VARCHAR2(20) NOT NULL,

no\_of\_credits NUMBER(1,0) NOT NULL,

lecturer\_name VARCHAR2(20) NOT NULL,

ta\_name VARCHAR2(20) NOT NULL,

prerequisite VARCHAR2(20),

semester\_offered VARCHAR2(20) NOT NULL,

PRIMARY KEY ( course\_id, course\_name)

);

CREATE TABLE registeredcourses (

studentid NUMBER(11,0) NOT NULL,

courseid VARCHAR(20) NOT NULL

);

INSERT INTO students

VALUES (20191702017, 01154539784, 'Habiba', 'Ahmed Elbadawy', '18 AUG 2000', 2.5, 46);

INSERT INTO students

VALUES (20191702074, 01056595742, 'Mina', 'Maged Maurice', '1 MARCH 2000', 2.7, 46);

INSERT INTO students

VALUES (20191702051, 01155536134, 'Amr', 'Akram', '2 FEB 2002', 3.0, 46);

INSERT INTO students

VALUES (20191702048, 01055583987, 'Omar', 'Amgad', '3 JUNE 2001', 3.3, 46);

INSERT INTO students

VALUES (20191702037, 01235559007, 'Saif', 'Abdel-Elah', '20 FEB 2002', 3.6, 46);

INSERT INTO students

VALUES (20181702017, 01526209715, 'Mazen', 'Mohamed', '2 DEC 2000', 3, 60);

INSERT INTO students

VALUES (20181702019, 01263736411, 'Omar', 'Tanbouly', '14 JULY 2001', 3.4, 60);

INSERT INTO students

VALUES (20201702000, 01579049096, 'Mahmoud', 'Khaled', '3 MAR 2002', 4, 0);

INSERT INTO courses

VALUES ('CIS260', 'Logic Design', 3, 'Dr.Manal Tantawy', 'Hadeer Hossin', 'BSC121', 'Spring');

INSERT INTO courses (COURSE\_ID, COURSE\_NAME, NO\_OF\_CREDITS, LECTURER\_NAME, TA\_NAME, SEMESTER\_OFFERED)

VALUES ('BSC221', 'Discrete Mathematics', 3, 'Dr.Salsabil Amin', 'Assem Abd Elnaby', 'Fall');

INSERT INTO courses

VALUES ('CIS270', 'Data Structures', 3, 'Dr.Wedad Hussein', 'Ghada Ahmed', 'CIS150', 'Spring');

INSERT INTO courses

VALUES ('CIS250', 'OOP', 3, 'Dr.Mohammed Mabrouk', 'Ramy Gamal', 'CIS150', 'Fall');

INSERT INTO courses (COURSE\_ID, COURSE\_NAME, NO\_OF\_CREDITS, LECTURER\_NAME, TA\_NAME, SEMESTER\_OFFERED)

VALUES ('BSC225', 'Math 4', 3, 'Dr.Safaa Amin', 'Diaa Mohammmed', 'Spring');

INSERT INTO courses

VALUES ('CIS280', 'Database MS', 3, 'Dr.Huda Amin', 'MennaTallah Maged', 'CIS 150', 'Fall');

INSERT INTO courses

VALUES ('INF311', 'Data Mining', 3, 'Dr.Walaa Khaled', 'Fatma Jamal', 'CIS280', 'Spring');

INSERT INTO courses (COURSE\_ID, COURSE\_NAME, NO\_OF\_CREDITS, LECTURER\_NAME, TA\_NAME, SEMESTER\_OFFERED)

VALUES ('BSC123', 'Probability', 3, 'Dr.Hassan Ramadan', 'Soad M. Bakry','Fall');

INSERT INTO courses

VALUES ('CIS380', 'Software Engineering', 3, 'Dr.Huda Amin', 'Eman Amin', 'CIS 150', 'Spring');

INSERT INTO registeredcourses VALUES (20191702017, 'CIS260');

INSERT INTO registeredcourses VALUES (20191702017, 'CIS270');

INSERT INTO registeredcourses VALUES (20191702017, 'BSC225');

INSERT INTO registeredcourses VALUES (20191702017, 'INF331');

INSERT INTO registeredcourses VALUES (20191702017, 'CIS380');

INSERT INTO registeredcourses VALUES (20191702074, 'CIS270');

INSERT INTO registeredcourses VALUES (20191702074, 'BSC123');

INSERT INTO registeredcourses VALUES (20191702074, 'BSC221');

INSERT INTO registeredcourses VALUES (20191702051, 'BSC221');

INSERT INTO registeredcourses VALUES (20191702051, 'BSC123');

INSERT INTO registeredcourses VALUES (20191702051, 'CIS250');

INSERT INTO registeredcourses VALUES (20191702051, 'CIS280');

INSERT INTO registeredcourses VALUES (20191702048, 'BSC123');

INSERT INTO registeredcourses VALUES (20191702037, 'BSC221');

INSERT INTO registeredcourses VALUES (20191702037, 'CIS270');

INSERT INTO registeredcourses VALUES (20191702037, 'CIS250');

INSERT INTO registeredcourses VALUES (20181702017, 'BSC221');

INSERT INTO registeredcourses VALUES (20181702017, 'INF311');

INSERT INTO registeredcourses VALUES (20181702017, 'CIS260');

INSERT INTO registeredcourses VALUES (20181702019, 'CIS380');

INSERT INTO registeredcourses VALUES (20181702019, 'BSC123');

create or replace

PROCEDURE showcoursestaken

(studID IN NUMBER, courses OUT SYS\_REFCURSOR)

AS

BEGIN

OPEN courses FOR

SELECT registeredcourses.courseid, courses.course\_name, no\_of\_credits

FROM registeredcourses

INNER JOIN courses ON registeredcourses.courseid=courses.course\_id

WHERE studentid=studID;

END showcoursestaken;

CREATE OR REPLACE PROCEDURE showGPA

(studID IN NUMBER, gpa OUT NUMBER)

AS

BEGIN

SELECT cumulative\_gpa INTO gpa

FROM students

WHERE student\_id= studid;

END showGPA;