E6.Adaptați cerința exercițiului 10 pentru diagrama proiectului prezentată la materia Baze de Date din anul I. Rezolvați subpunctul (a) al acestui exercițiu în PL/SQL, folosind baza de date proprie.

10. Pentru fiecare dintre facultățile 1, 2, 3 obțineți numele precum și lista numelor studentilor care studiaza în cadrul acestora. Rezolvați problema folosind:

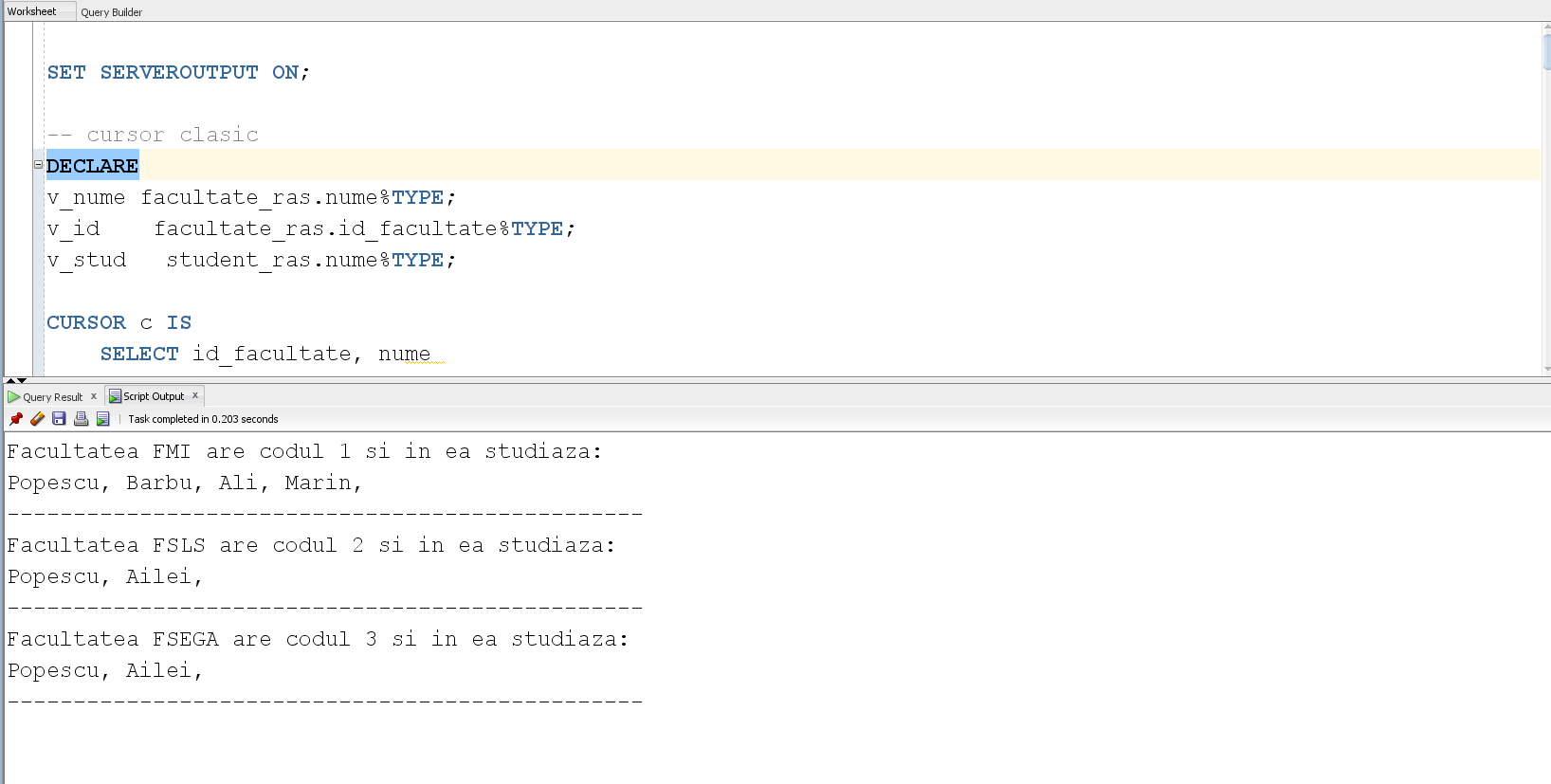
a. cele trei tipuri de cursoare studiate;

b. expresii cursor

Întrucât nu am avut proiect la materia Baze de Date, am creat o structură simplificată pentru a rezolva cerințele.

| CREATE TABLE facultate\_ras  ( id\_facultate NUMBER(4) CONSTRAINT id\_facultate\_ras NOT NULL,  an\_infiintare NUMBER(4),  nume VARCHAR2(50),  profil VARCHAR2(20),  CONSTRAINT pk\_facultate\_ras PRIMARY KEY (id\_facultate)  );    CREATE TABLE student\_ras  ( id\_student NUMBER(4) CONSTRAINT id\_student\_ras NOT NULL,  nume VARCHAR2(30),  prenume VARCHAR2(30),  email VARCHAR2(60),  CONSTRAINT pk\_student\_ras PRIMARY KEY (id\_student)  );  CREATE TABLE studiaza\_ras  (  id\_facultate NUMBER(4) CONSTRAINT id\_fac\_ras NOT NULL,  id\_student NUMBER(4) CONSTRAINT id\_stud\_ras NOT NULL,  an NUMBER(1),  ciclu VARCHAR2(30),  forma\_finantare VARCHAR2(30),  CONSTRAINT pk\_studiaza\_ras PRIMARY KEY (id\_facultate, id\_student),  CONSTRAINT fk\_id\_facultate FOREIGN KEY(id\_facultate) REFERENCES facultate\_ras(id\_facultate) ON DELETE CASCADE,  CONSTRAINT fk\_id\_student FOREIGN KEY(id\_student) REFERENCES student\_ras(id\_student) ON DELETE CASCADE  );  INSERT INTO student\_ras  VALUES ('300', 'Popescu', 'Marian', 'popescu.m@gmail.com');  INSERT INTO student\_ras  VALUES ('200', 'Ailei', 'Costel', 'ailenei.c@gmail.com');  INSERT INTO student\_ras  VALUES ('400', 'Barbu', 'Miruna', 'barbu.m@gmail.com');  INSERT INTO student\_ras  VALUES ('512', 'Ali', 'Bogdan', 'ali.b@gmail.com');  INSERT INTO student\_ras  VALUES ('150', 'Marin', 'Mario', 'marin.m@gmail.com');  INSERT INTO facultate\_ras  VALUES ('1', '1990', 'FMI', 'teoretic');  INSERT INTO facultate\_ras  VALUES ('2', '1990', 'FSLS', 'teoretic');  INSERT INTO facultate\_ras  VALUES ('3', '1980', 'FSEGA', 'teoretic');  INSERT INTO facultate\_ras  VALUES ('4', '1985', 'FAA', 'teoretic');  INSERT INTO facultate\_ras  VALUES ('5', '1988', 'FASV', 'practic');  INSERT INTO studiaza\_ras  VALUES ('1', '300', '2', 'licenta', 'buget');  INSERT INTO studiaza\_ras  VALUES ('3', '300', '3', 'licenta', 'buget');  INSERT INTO studiaza\_ras  VALUES ('2', '300', '1', 'licenta', 'taxa');  INSERT INTO studiaza\_ras  VALUES ('3', '200', '1', 'master', 'taxa');  INSERT INTO studiaza\_ras  VALUES ('2', '200', '1', 'licenta', 'taxa');  INSERT INTO studiaza\_ras  VALUES ('1', '150', '2', 'licenta', 'taxa');  INSERT INTO studiaza\_ras  VALUES ('1', '400', '3', 'licenta', 'buget');  INSERT INTO studiaza\_ras  VALUES ('1', '512', '1', 'master', 'buget');  INSERT INTO studiaza\_ras  VALUES ('4', '512', '2', 'master', 'taxa');  INSERT INTO studiaza\_ras  VALUES ('5', '400', '1', 'licenta', 'taxa'); |
| --- |

| SET SERVEROUTPUT ON;  -- cursor clasic  DECLARE  v\_nume facultate\_ras.nume%TYPE;  v\_id facultate\_ras.id\_facultate%TYPE;  v\_stud student\_ras.nume%TYPE;  CURSOR c IS  SELECT id\_facultate, nume  FROM facultate\_ras  WHERE id\_facultate IN (1, 2, 3);  CURSOR studenti (parametru NUMBER) IS  SELECT nume  FROM studiaza\_ras a JOIN student\_ras b ON (a.id\_student = b.id\_student)  WHERE id\_facultate = parametru;  BEGIN  OPEN c;  LOOP  FETCH c INTO v\_id, v\_nume;  EXIT WHEN c%NOTFOUND;  OPEN studenti(v\_id);  FETCH studenti INTO v\_stud;  DBMS\_OUTPUT.PUT\_LINE('Facultatea ' || v\_nume || ' are codul ' || v\_id || ' si in ea studiaza: ');  WHILE studenti%FOUND LOOP  FETCH studenti INTO v\_stud;  DBMS\_OUTPUT.PUT(v\_stud || ', ');  END LOOP;  CLOSE studenti;  DBMS\_OUTPUT.PUT\_LINE('');  DBMS\_OUTPUT.PUT\_LINE('------------------------------------------------');  END LOOP;  CLOSE c;  END;  / |
| --- |



| -- ciclu cursor  DECLARE  v\_nume facultate\_ras.nume%TYPE;  v\_id facultate\_ras.id\_facultate%TYPE;  v\_stud student\_ras.nume%TYPE;  CURSOR c IS  SELECT id\_facultate, nume  FROM facultate\_ras  WHERE id\_facultate IN (1, 2, 3);  CURSOR studenti (parametru NUMBER) IS  SELECT nume  FROM studiaza\_ras a JOIN student\_ras b ON (a.id\_student = b.id\_student)  WHERE id\_facultate = parametru;  BEGIN  FOR fac IN c LOOP  v\_nume := fac.nume;  v\_id := fac.id\_facultate;  DBMS\_OUTPUT.PUT\_LINE('Facultatea ' || v\_nume || ' are codul ' || v\_id || ' si in ea studiaza: ');  FOR stud IN studenti(v\_id) LOOP  v\_stud := stud.nume;  DBMS\_OUTPUT.PUT(v\_stud || ', ');  END LOOP;  DBMS\_OUTPUT.PUT\_LINE('');  DBMS\_OUTPUT.PUT\_LINE('------------------------------------------------');  END LOOP;    END;  / |
| --- |



| -- ciclu cursor cu subcereri  DECLARE  v\_nume facultate\_ras.nume%TYPE;  v\_id facultate\_ras.id\_facultate%TYPE;  v\_stud student\_ras.nume%TYPE;  BEGIN  FOR fac IN (SELECT id\_facultate, nume  FROM facultate\_ras  WHERE id\_facultate IN (1, 2, 3)) LOOP  v\_nume := fac.nume;  v\_id := fac.id\_facultate;  DBMS\_OUTPUT.PUT\_LINE('Facultatea ' || v\_nume || ' are codul ' || v\_id || ' si in ea studiaza: ');  FOR stud IN (SELECT nume  FROM studiaza\_ras a JOIN student\_ras b ON (a.id\_student = b.id\_student)  WHERE id\_facultate = v\_id) LOOP  v\_stud := stud.nume;  DBMS\_OUTPUT.PUT(v\_stud || ', ');  END LOOP;  DBMS\_OUTPUT.PUT\_LINE('');  DBMS\_OUTPUT.PUT\_LINE('------------------------------------------------');  END LOOP;    END;  / |
| --- |

