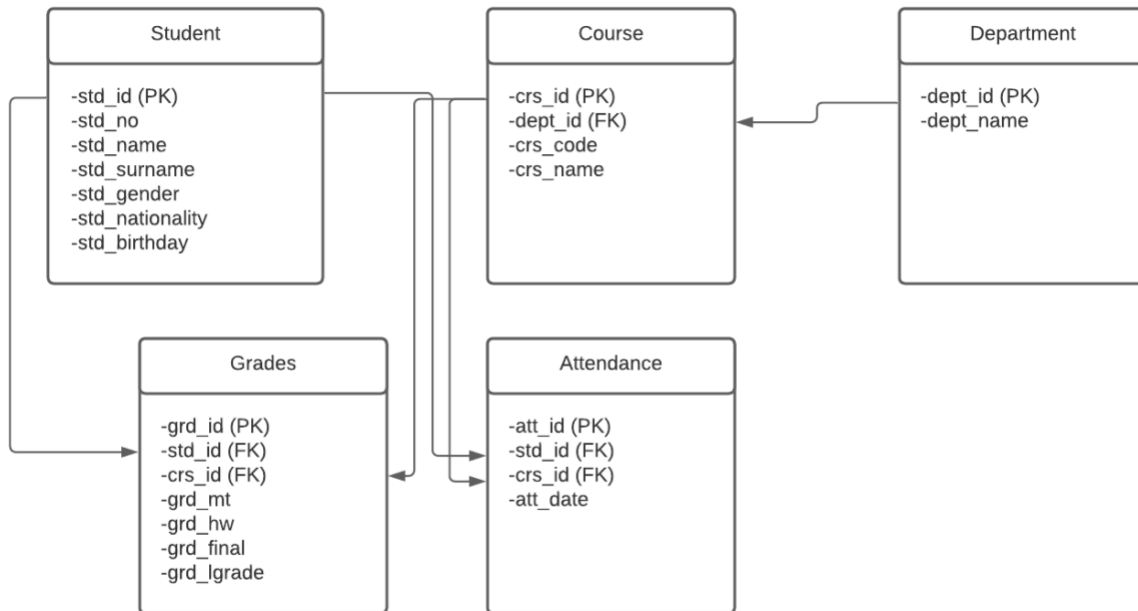


## Student Grading Systems Designing Report

### A- Classes Definitions and Object relations



### B- Methods of the classes:

#### 1. class Student:

- a. set\_std\_id(int sid)
- b. set\_std\_no(String std\_no)
- c. set\_name(String name)
- d. set\_surname(String surname)
- e. set\_gender(Char gender)
- f. set\_nationality(String nationality)
- g. set\_birthday(date birthdate)
- h. get\_std\_id()
- i. get\_std\_no()
- j. get\_name()
- k. get\_surname()
- l. get\_gender()
- m. get\_nationality()
- n. get\_birthday()
- o. add\_student(int id, String name, String surname, Char gender, String nationality, date birthdate)
- p. edit\_student(int id, String name, String surname, Char gender, String nationality, date birthdate)
- q. delete\_student(int id)
- r. list\_student(int id)

- s. list\_all\_students()
- t. delete\_all\_students()
- u. backup\_students()
- v. restore\_students()

2. class Course:

- a. set\_crs\_id(int id)
- b. set\_dept\_id(int dept\_id)
- c. set\_crs\_code(String crs\_code)
- d. set\_crs\_name(String crs\_name)
- e. get\_crs\_id()
- f. get\_dept\_id()
- g. get\_crs\_code()
- h. get\_crs\_name()
- i. add\_course(int id, int dept\_id, String crs\_code, String crs\_name)
- j. edit\_course(int id, int dept\_id, String crs\_code, String crs\_name)
- k. delete\_course(int id)
- l. list\_course(int id)
- m. list\_all\_courses ()
- n. delete\_all\_courses()
- o. backup\_courses()
- p. restore\_courses()

3. class Department:

- a. set\_dept\_id(int id)
- b. set\_dept\_name(String dept\_name)
- c. get\_dept\_id()
- d. get\_name()
- e. add\_department(int id, String dept\_name)
- f. edit\_course(int id, String dept\_name)
- g. delete\_department (int id)
- h. list\_department(int id)
- i. list\_all\_departments ()
- j. delete\_all\_departments()
- k. backup\_departments()
- l. restore\_departments()

4. class Grades:

- a. set\_grd\_id(int id)
- b. set\_std\_id(int std\_id)
- c. set\_crs\_id(int crs\_id)
- d. set\_grd\_mt(float grd\_mt)
- e. set\_grd\_hw(float grd\_hw)
- f. set\_grd\_final(float grd\_final)

- g. set\_grd\_lgrade(String grd\_lgrade)
- h. get\_grd\_id()
- i. get\_std\_id()
- j. get\_crs\_id()
- k. get\_grd\_mt()
- l. get\_grd\_hw()
- m. get\_grd\_final()
- n. get\_grd\_lgrade()
- o. add\_grade(int id, int std\_id, int crs\_id, float grd\_mt, float grd\_hw, float  
grd\_final, String grd\_lgrade)
- p. edit\_grade(int id, int std\_id, int crs\_id, float grd\_mt, float grd\_hw, float  
grd\_final, String grd\_lgrade)
- q. delete\_grade(int id)
- r. list\_grade(int id)
- s. list\_all\_grades ()
- t. delete\_all\_grades()
- u. backup\_grades()
- v. restore\_grades()

5. class Attendance:

- a. set\_att\_id(int id)
- b. set\_std\_id(int std\_id)
- c. set\_crs\_id(int crs\_id)
- d. set\_att\_date(date att\_date)
- e. get\_att\_id()
- f. get\_std\_id()
- g. get\_crs\_id()
- h. get\_att\_date()
- i. add\_attendance(int id, int std\_id, int crs\_id, date att\_date)
- j. edit\_attendace(int id, int std\_id, int crs\_id, date att\_date)
- k. delete\_attendance(int id)
- l. list\_attendance(int id)
- m. list\_all\_attendances ()
- n. delete\_all\_attendances()
- o. backup\_attendances()
- p. restore\_attendances()

**C- Test data for each class:**

- 1. test\_Student()
  - 1,"189222","Ayse","Cengiz","F","Turkey","28/03/2002".
  - 2,"193342","Philip","Udoye","M","Nigeri", "16/09/2003".
  - 3,"189931","Kemal","Salih","M","TRNC","17/05/2002".
  - 4,"188883","Fathima","Mohammad","F","Syria","22/11/2001".
  - 5,"189447","Jasmin","Faruq","F","Egypt","19/02/2002".

2. test\_Course()
  - 1,1,"ITEC314","Multi Platform Programming".
  - 2,1,"ITEC413","Information Systems Security"
  - 3,2,"ECON101","Introduction to Economics".
  - 4,3,"BUSS103","Fundamentals of Business Administration".
  
3. test\_Department()
  - 1,"Information Technologies".
  - 2,"Economics".
  - 3,"Business".
  
4. test\_Grades()
  - 1,1,1,90f,88f,96f,"A".
  - 2,2,1,80f,85f,82f,"B+".
  - 3,3,2,75f,80f,77f,"B-".
  - 4,4,2,69f,75f,66f,"C+".
  - 5,5,1,88f,80f,82f,"A-".
  
5. test\_Attendance()
  - 1,1,1, "09/04/2021".
  - 2,2,1, "09/04/2021".
  - 3,3,2, "09/04/2021".
  - 4,4,2, "09/04/2021".
  - 5,5,1, "09/04/2021".
  - 6,1,1, "12/04/2021".
  - 7,2,1, "12/04/2021".
  - 5,5,1, "12/04/2021".

**D- Testing Strategy (Steps):**

- 1- Add all data
- 2- List all
- 3- Edit the 2<sup>nd</sup> object
- 4- List all
- 5- Backup
- 6- Delete 3<sup>rd</sup> object
- 7- List all
- 8- Restore
- 9- List all