**ITEC314 MULTIPLATFORM PROGRAMMING**

**Student Grading Systems Designing Report**

1. Classes Definitions and Object relations

Diagram

Description automatically generated

1. Methods of the classes:
2. class Student:
   1. set\_std\_id(int id)
   2. set\_name(String name)
   3. set\_surname(String surname)
   4. set\_gender(Char gender)
   5. set\_nationality(String nationality)
   6. set\_birthday(date birthdate)
   7. get\_std\_id()
   8. get\_name()
   9. get\_surname()
   10. get\_gender()
   11. get\_nationality()
   12. get\_birthday()
   13. add\_student(int id, String name, String surname, Char gender, String nationality, date birthdate)
   14. edit\_student(int id, String name, String surname, Char gender, String nationality, date birthdate)
   15. delete\_student(int id)
   16. list\_student(int id)
   17. list\_all\_students()
   18. delete\_all\_students()
   19. backup\_students()
   20. restore\_students()
3. class Course:
   1. set\_crs\_id(int id)
   2. set\_dept\_id(int dept\_id)
   3. set\_crs\_code(String crs\_code)
   4. set\_crs\_name(String crs\_name)
   5. get\_crs\_id()
   6. get\_dept\_id()
   7. get\_crs\_code()
   8. get\_crs\_name()
   9. add\_course(int id, int dept\_id, String crs\_code, String crs\_name)
   10. edit\_course(int id, int dept\_id, String crs\_code, String crs\_name)
   11. delete\_course(int id)
   12. list\_course(int id)
   13. list\_all\_courses ()
   14. delete\_all\_courses()
   15. backup\_courses()
   16. restore\_courses()
4. class Department:
   1. set\_dept\_id(int id)
   2. set\_dept\_name(String dept\_name)
   3. get\_dept\_id()
   4. get\_name()
   5. add\_department(int id, String dept\_name)
   6. edit\_course(int id, String dept\_name)
   7. delete\_department (int id)
   8. list\_department(int id)
   9. list\_all\_departments ()
   10. delete\_all\_departments()
   11. backup\_departments()
   12. restore\_departments()
5. class Grades:
   1. set\_grd\_id(int id)
   2. set\_std\_id(int std\_id)
   3. set\_crs\_id(int crs\_id)
   4. set\_grd\_mt(float grd\_mt)
   5. set\_grd\_hw(float grd\_hw)
   6. set\_grd\_final(float grd\_final)
   7. set\_grd\_lgrade(String grd\_lgrade)
   8. get\_grd\_id()
   9. get\_std\_id()
   10. get\_crs\_id()
   11. get\_grd\_mt()
   12. get\_grd\_hw()
   13. get\_grd\_final()
   14. get\_grd\_lgrade()
   15. add\_grade(int id, int std\_id, int crs\_id, float grd\_mt, float grd\_hw, float grd\_final, String grd\_lgrade)
   16. edit\_grade(int id, int std\_id, int crs\_id, float grd\_mt, float grd\_hw, float grd\_final, String grd\_lgrade)
   17. delete\_grade(int id)
   18. list\_grade(int id)
   19. list\_all\_grades ()
   20. delete\_all\_grades()
   21. backup\_grades()
   22. restore\_grades()
6. class Attendance:
   1. set\_att\_id(int id)
   2. set\_std\_id(int std\_id)
   3. set\_crs\_id(int crs\_id)
   4. set\_att\_date(date att\_date)
   5. get\_att\_id()
   6. get\_std\_id()
   7. get\_crs\_id()
   8. get\_att\_date()
   9. add\_attendance(int id, int std\_id, int crs\_id, date att\_date)
   10. edit\_attendace(int id, int std\_id, int crs\_id, date att\_date)
   11. delete\_attendance(int id)
   12. list\_attendance(int id)
   13. list\_all\_attendances ()
   14. delete\_all\_attendances()
   15. backup\_attendances()
   16. restore\_attendances()
7. Test data for each class:
8. test\_Student()

1,“Ayse”,”Cengiz”,”F”,”Turkey”,”28/03/2002”.

2,”Philip”,”Udoye”,”M”,”Nigeri”, “16/09/2003”.

3,”Kemal”,”Salih”,”M”,”TRNC”,”17/05/2002”.

4,”Fathima”,”Mohammad”,”F”,”Syria”,”22/11/2001”.

5,”Jasmin”,”Faruq”,”F”,”Egypt”,”19/02/2002”.

1. 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”.

1. test\_Department()

1,”Information Technologies”.

2,”Economics”.

3,”Business”.

1. 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-”.

1. 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”.

1. **Testing Strategy (Steps):**
2. Add all data
3. List all
4. Edit the 2nd object
5. List all
6. Backup
7. Delete 3rd object
8. List all
9. Restore
10. List all