Github -

```
[coolo@coolo asn1]$ python final.py

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : s

Student : (U)Update (L)List (S)Search (E)Exit to Main Menu : l

List : (U)Unordered (O)Ordered (R)Reversed (E)Exit to Main Menu : r

2,lamine, Jane, 4374567812,j_smith@gmail.com

1,fast, Anna, 4376902123,a_smith@gmail.com

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : s

Student : (U)Update (L)List (S)Search (E)Exit to Main Menu : s

Search : (L)Last Name (P)Phone number (E) Exit to Main Menu : l
Enter last name : fast
1,fast, Anna, 4376902123,a_smith@gmail.com

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : c

Course : (L)List (S)Search (E)Exit to Main Menu : l

List : (U)Unordered (O)Ordered (R)Reversed (E)Exit to Main Menu : o
1,CS2020, winter
2,CS2020, fall
3,CS2040, fall
4,CS2910, winter

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : c

Course : (L)List (S)Search (E)Exit to Main Menu : s

Search : (N)Name (C)Code (S)Semester (E) Exit to Main Menu : cs2040

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : e
[coolo@coolo asn1]$ []
```

- List students, search last name, list courses

```
[coolo@coolo asn1]$ python final.py

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : c

Course : (L)List (S)Search (E)Exit to Main Menu : s

Search : (N)Name (C)Code (S)Semester (E) Exit to Main Menu : s

Enter semester : fall
2,CS2020, fall
3,CS2040, fall

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : c

Course : (L)List (S)Search (E)Exit to Main Menu : s

Search : (N)Name (C)Code (S)Semester (E) Exit to Main Menu : n

Enter course name : cs2020

1,CS2020, winter

2,CS2020, fall

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : c

Course : (L)List (S)Search (E)Exit to Main Menu : s

Search : (N)Name (C)Code (S)Semester (E) Exit to Main Menu : c

Enter course code : 2

2,CS2020, fall

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : e
[coolo@coolo asn1]$
```

- Search semester courses, search course name, search course code


```
                                                coolo@coolo:~/cs2910/asn1                                    ∨ ◇ ×
[coolo@coolo asn1]$ python final.py

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : g

Grades : (O)Stu Course & Grades (C)Stu Avg (CA)C+Term (AC)Avg Course Grades : o

Enter last name : fast
Anna,Smith, []
Jane,fast, [('CS2040', 90), ('CS2910', 85)]

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : g

Grades : (O)Stu Course & Grades (C)Stu Avg (CA)C+Term (AC)Avg Course Grades : c

Enter last name : fast
Jane,fast average = 87.5

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : g

Grades : (O)Stu Course & Grades (C)Stu Avg (CA)C+Term (AC)Avg Course Grades : ca

Enter student's last Name : fast
Enter course term : fall

Jane,fast fall average = 85.0

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : g

Grades : (O)Stu Course & Grades (C)Stu Avg (CA)C+Term (AC)Avg Course Grades : ac

Enter the course name : cs2020

the average grade for cs2020 is 75.0

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : []
```
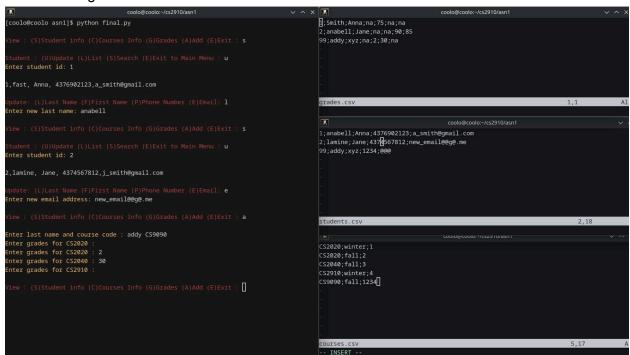
- Student courses and grades, student total average, student term average, course average


```
                        coolo@coolo:~/cs2910/asn1              ∨ ∧ ×     █;Smith;Anna;na;75;na;na
[coolo@coolo asn1]$ python final.py                                     2;anabell;Jane;na;na;90;85
                                                                        99;addy;xyz;na;2;30;na
View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : s

Student : (U)Update (L)List (S)Search (E)Exit to Main Menu : u
Enter student id: 1

1,fast, Anna, 4376902123,a_smith@gmail.com                              grades.csv                            1,1        Al

Update: (L)Last Name (F)First Name (P)Phone Number (E)Email: l                           coolo@coolo:~/cs2910/asn1               ∨
Enter new last name: anabell                                            1;anabell;Anna;4376902123;a_smith@gmail.com
                                                                        2;lamine;Jane;4374567812;new_email@@g@.me
View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : s      99;addy;xyz;1234;@@@

Student : (U)Update (L)List (S)Search (E)Exit to Main Menu : u
Enter student id: 2

2,lamine, Jane, 4374567812,j_smith@gmail.com

Update: (L)Last Name (F)First Name (P)Phone Number (E)Email: e          students.csv                          2,18
Enter new email address: new_email@@g@.me                                               coolo@coolo:~/cs2910/asn1

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : a      CS2020;winter;1
                                                                        CS2020;fall;2
Enter last name and course code : addy CS9090                           CS2040;fall;3
Enter grades for CS2020 :                                               CS2910;winter;4
Enter grades for CS2020 : 2                                             CS9090;fall;1234[]
Enter grades for CS2040 : 30
Enter grades for CS2910 :

View : (S)Student info (C)Courses Info (G)Grades (A)Add (E)Exit : []

                                                                        courses.csv                           5,17       A
                                                                        -- INSERT --
```

- Student info updated (name and email) shows changes in grades too, add new student , course and grades,, grades can be empty auto filled other parameters