```
Terminal    Local  ✕    Ubuntu  ✕   +   ⌄

+-------------+
|  Main Menu  |
+-------------+
1. Search
2. Change
3. Admin
4. Print to File
5. [Exit]
Enter your choice:
```

$ make
$ ./run

SEARCHES

```
+----------------+
|  Search Menu   |
+----------------+
1. Schedules (student/class)
2. Students Information
3. Occupation of ALL (classes/UCs/years)
4. Occupation of the (classes of a UC/UCs of a year)
5. List of students registered in a (class/UC/year)
6. List of students registered in at least N UCs
7. [Back]
Enter your choice:
```

SCHEDULES

```
Student Code: 202046227
Student Name: Caetano
------------------------------------------
Monday
------------------------------------------

    L.EIC015, 2LEIC08
  Start Hour: 14:00
    End Hour: 16:00
   Duration: 2h
        Type: T


    L.EIC024, 3LEIC12
  Start Hour: 14:00
    End Hour: 16:00
   Duration: 2h
        Type: TP


    L.EIC021, 3LEIC14
  Start Hour: 16:00
    End Hour: 17:00
   Duration: 1h
        Type: T


------------------------------------------
Tuesday
------------------------------------------

    L.EIC011, 2LEIC02
  Start Hour: 08:30
    End Hour: 10:30
   Duration: 2h
        Type: TP


    L.EIC024, 3LEIC12
  Start Hour: 08:30
    End Hour: 10:30
   Duration: 2h
        Type: T
```

```
Terminal    Local  ×   Ubuntu  ×  +  ⌄

+-------------------------+
|   Search Schedule Menu  |
+-------------------------+
1. Student Schedule
2. Class Schedule
3. [Back]
Enter your choice:
```

```
CONSULT A CLASS SCHEDULE
Enter the class code for the schedule you want search for: 1LEIC01
------------------------------------------
Monday
------------------------------------------

    L.EIC002, 1LEIC01
  Start Hour: 08:30
    End Hour: 10:30
   Duration: 2h
        Type: T


    L.EIC001, 1LEIC01
  Start Hour: 10:30
    End Hour: 12:00
   Duration: 1.5h
        Type: TP


------------------------------------------
Tuesday
------------------------------------------

    L.EIC002, 1LEIC01
  Start Hour: 08:30
    End Hour: 10:30
   Duration: 2h
        Type: TP


    L.EIC001, 1LEIC01
  Start Hour: 10:30
    End Hour: 12:00
   Duration: 1.5h
        Type: T


------------------------------------------
Wednesday
------------------------------------------

    L.EIC003, 1LEIC01
  Start Hour: 09:30
    End Hour: 10:30
   Duration: 1h
        Type: T
```

STUDENT INFORMATION

```
Search criteria: (Code: 202024807)

Selected student information:
Student Code: 202024807
Student Name: Bruna
UCs and Classes:
UcCode: L.EIC002, ClassCode: 1LEIC08
UcCode: L.EIC003, ClassCode: 1LEIC08
UcCode: L.EIC011, ClassCode: 2LEIC10
UcCode: L.EIC012, ClassCode: 2LEIC14
UcCode: L.EIC013, ClassCode: 2LEIC13
UcCode: L.EIC014, ClassCode: 2LEIC16
UcCode: L.EIC015, ClassCode: 2LEIC09


Press ENTER to continue...
```

```
Terminal    Local  ×    Ubuntu  ×   +  ∨
+----------------+
|  Student Menu  |
+----------------+
1. Search by student code
2. Search by student name
3. [Back]
Enter your choice: █
```

```
Search criteria: (Name: mar)

Results of the search:
1.  Student Code: 202079972    Name: Jose Martinho
2.  Student Code: 202060847    Name: Manuel Marcelino
3.  Student Code: 202079887    Name: Manuel Martinho
4.  Student Code: 202021577    Name: Mara
5.  Student Code: 202060337    Name: Marcelino
6.  Student Code: 202058977    Name: Marcelo
7.  Student Code: 202043592    Name: Marcio
8.  Student Code: 202051582    Name: Marcio Jose
9.  Student Code: 202051497    Name: Marcio Manuel
10. Student Code: 202039172    Name: Marco
11. Student Code: 202044102    Name: Marcos
12. Student Code: 202020812    Name: Margarida
13. Student Code: 202020047    Name: Maria
14. Student Code: 202020472    Name: Mariana
15. Student Code: 202039342    Name: Mario
16. Student Code: 202031862    Name: Marisa
17. Student Code: 202023532    Name: Marta
18. Student Code: 202033987    Name: Martim
19. Student Code: 202043677    Name: Martinho
20. Student Code: 202058212    Name: Osmar
21. Student Code: 202079802    Name: Valdemar

Enter the number of the student you want to view: 19

Selected student information:
Student Code: 202043677
Student Name: Martinho
UCs and Classes:
UcCode: L.EIC011, ClassCode: 2LEIC07
UcCode: L.EIC012, ClassCode: 2LEIC07
UcCode: L.EIC013, ClassCode: 2LEIC07
UcCode: L.EIC014, ClassCode: 2LEIC07
UcCode: L.EIC015, ClassCode: 2LEIC07


Press ENTER to continue...
```
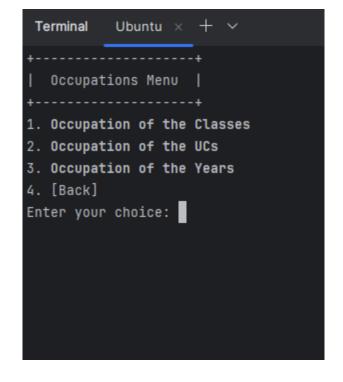
OCCUPATIONS IN ALL CLASSES/UCS/YEARS

```
+-------------------+
|  Occupations Menu |
+-------------------+
1. Occupation of the Classes
2. Occupation of the UCs
3. Occupation of the Years
4. [Back]
Enter your choice: █
```

```
Choose a sorting option:
1. by class code ascending order
2. by class code descending order
3. by class occupation ascending order
4. by class occupation descending order
█
```

```
1
[ code ascending order ]:
1LEIC01: 7 students
1LEIC02: 11 students
1LEIC03: 8 students
1LEIC04: 10 students
1LEIC05: 11 students
1LEIC06: 5 students
1LEIC07: 28 students
1LEIC08: 26 students
1LEIC09: 6 students
1LEIC10: 8 students
1LEIC11: 7 students
1LEIC12: 7 students
1LEIC13: 30 students
1LEIC14: 27 students
1LEIC15: 16 students
1LEIC16: 19 students
2LEIC01: 47 students
2LEIC02: 46 students
2LEIC03: 52 students
2LEIC04: 60 students
2LEIC05: 50 students
2LEIC06: 46 students
2LEIC07: 34 students
2LEIC08: 54 students
2LEIC09: 82 students
2LEIC10: 83 students
2LEIC11: 76 students
2LEIC12: 81 students
2LEIC13: 87 students
2LEIC14: 79 students
2LEIC15: 75 students
2LEIC16: 42 students
3LEIC01: 39 students
3LEIC02: 48 students
3LEIC03: 58 students
3LEIC04: 63 students
```

```
2
[ code descending order ]:
UP001: 0 students
L.EIC025: 273 students
L.EIC024: 209 students
L.EIC023: 281 students
L.EIC022: 223 students
L.EIC021: 262 students
L.EIC015: 357 students
L.EIC014: 352 students
L.EIC013: 400 students
L.EIC012: 342 students
L.EIC011: 329 students
L.EIC005: 50 students
L.EIC004: 71 students
L.EIC003: 74 students
L.EIC002: 85 students
L.EIC001: 32 students
Press ENTER to continue...█
```

```
3
[ occupation ascending order ]:
Year 1: 140 students
Year 3: 333 students
Year 2: 496 students
Press ENTER to continue...
```

```
4
[ occupation descending order ]:
Year 2: 496 students
Year 3: 333 students
Year 1: 140 students
Press ENTER to continue...
```

OCCUPATIONS IN CLASSES
FOR A SPECIFIC UC
or
OCCUPATIONS IN UCS FOR
A SPECIFIC YEAR

```
+--------------------+
|  Occupations Menu  |
+--------------------+
1. Occupation of the Classes of a UC
2. Occupation of the UCs of a Year
3. [Back]
Enter your choice: []
```

```
Enter the UC code (L.EIC001-L.EIC005, L.EIC011-L.EIC015, L.EIC021-L.EIC025, UP001): L.EIC012
Choose a sorting option:
1. by class code ascending order
2. by class code descending order
3. by class occupation ascending order
4. by class occupation descending order
1
Classes and Student Counts for L.EIC012 [ code ascending order ]:
2LEIC01: 22 students
2LEIC02: 22 students
2LEIC03: 23 students
2LEIC04: 24 students
2LEIC05: 23 students
2LEIC06: 23 students
2LEIC07: 23 students
2LEIC08: 22 students
2LEIC09: 23 students
2LEIC10: 23 students
2LEIC11: 22 students
2LEIC12: 23 students
2LEIC13: 23 students
2LEIC14: 23 students
2LEIC15: 23 students
Press ENTER to continue...
```

```
Enter the year (1-3) you want to consult: 2
Choose a sorting option:
1. by UC code ascending order
2. by UC code descending order
3. by UC occupation ascending order
4. by UC occupation descending order
2
UCs and Student Counts for year 2 [ code descending order ]:
L.EIC015: 357 students
L.EIC014: 352 students
L.EIC013: 400 students
L.EIC012: 342 students
L.EIC011: 329 students
Press ENTER to continue...
```
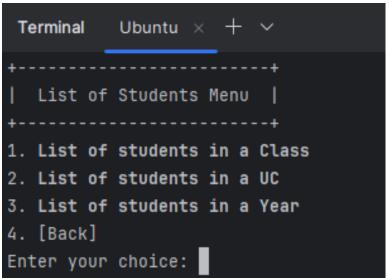
LIST STUDENTS

```
CONSULT THE LIST OF STUDENTS IN CLASS
Enter the class code you want search for: 3LEIC13
34 students in class 3LEIC13

1. Ascending order
2. Descending order

Choose the order: 1
 [Ascending order]:


1.  202040617 Abilio
2.  202024977 Angelina
3.  202043252 Bento
4.  202066117 Gastao
5.  202072917 Germano
6.  202058127 Hernani
7.  202062717 Inacio
8.  202061867 Isaias
9.  202056852 Jardel
10. 202063737 Joao Fernando
11. 202062037 Joao Rodrigo
12. 202075892 Jose Alcino
13. 202057787 Jose Duarte
14. 202055492 Jose Eduardo
15. 202064332 Jose Filipe
16. 202065182 Jose Francisco
17. 202044272 Jose Gil
18. 202065947 Jose Inacio
19. 202078952 Jose Jaime
```

```
Terminal    Ubuntu  ×  +  ∨

+------------------------+
|  List of Students Menu  |
+------------------------+
1. List of students in a Class
2. List of students in a UC
3. List of students in a Year
4. [Back]
Enter your choice: █
```

```
CONSULT THE LIST OF STUDENTS IN UC
Enter the UC code you want search for: L.EIC023
281 students in UC L.EIC023

1. Ascending order
2. Descending order

Choose the order: 2
 [Descending order]:


1.  202027867 Zita
2.  202064417 Vladimiro
3.  202041042 Vitor
4.  202035517 Vicente
5.  202073767 Venancio
6.  202074957 Valter
7.  202024212 Valentina
8.  202028122 Tatiana
9.  202041382 Sergio
10. 202059402 Saul
11. 202076402 Sancho
12. 202072577 Romulo
13. 202059997 Rodolfo
14. 202067987 Reinaldo
15. 202070112 Ramiro
```

```
Enter the year you want search for: 3
333 students in year 3

1. Ascending order
2. Descending order

Choose the order: 1
 [Ascending order]:

1.  202040617 Abilio
2.  202073597 Adriano
3.  202078527 Alcides
4.  202076997 Alcino
5.  202061102 Alfredo
6.  202060507 Alipio
7.  202041467 Altino
8.  202072322 Amandio
9.  202027102 Amelia
10. 202059572 Americo
11. 202061017 Amilcar
12. 202073852 Anacleto
13. 202027272 Andreia
14. 202059232 Angelico
15. 202024977 Angelina
16. 202060167 Anibal
17. 202060082 Anselmo
18. 202029992 Antonia
19. 202062887 Antonio Luis
20. 202063227 Aramis
21. 202061612 Aristides
22. 202057447 Armando
23. 202067052 Armindo
```

```
Enter the number of students registered in at least
how many UCs you want to search for: 3
Number of students registered in at least [3] UCs: 648
1.  [5] 202044867 Abel
2.  [6] 202040617 Abilio
3.  [4] 202025572 Adelaide
4.  [5] 202047247 Adolfo
5.  [6] 202026422 Adriana
6.  [5] 202073597 Adriano
7.  [5] 202034072 Afonso
8.  [6] 202028462 Agata
9.  [5] 202051667 Agostinho
10. [5] 201950477 Albano
11. [5] 202048182 Alberto
12. [5] 202076997 Alcino
13. [6] 202025912 Alexandra
14. [5] 202036877 Alexandre
15. [5] 202053282 Alexandro
16. [6] 202061102 Alfredo
17. [5] 202021152 Alice
18. [5] 202060507 Alipio
19. [5] 202041467 Altino
20. [5] 202043762 Alvaro
21. [3] 202031097 Alzira
22. [5] 202039767 Amadeu
23. [5] 202032117 Amalia
24. [5] 202072322 Amandio
25. [5] 202042657 Ambrósio
26. [7] 202027102 Amelia
27. [5] 202059572 Americo
28. [3] 202061017 Amilcar
29. [5] 202020557 Ana
30. [4] 202073852 Anacleto
31. [5] 201954217 Anastacio
32. [5] 202036537 Andre
33. [6] 202027272 Andreia
34. [6] 202030757 Angela
35. [6] 202059232 Angelico
```

CHANGES

```
+-------------------+
|  Request Menu  |
+-------------------+
1. Request change class
2. Request change UC
3. Request leave UC and class
4. Request join UC and class
5. Request swap classes between students
6. [Back]
Enter your choice:
```

CHANGE CLASS

```
Student Code: 202076657
Student Name: Camilo
UCs and Classes:
1. UcCode: L.EIC021, ClassCode: 3LEIC06
2. UcCode: L.EIC022, ClassCode: 3LEIC06
3. UcCode: L.EIC023, ClassCode: 3LEIC07
4. UcCode: L.EIC024, ClassCode: 3LEIC06
5. UcCode: L.EIC025, ClassCode: 3LEIC06
6. [Back]

Choose the class you'd wish to change: 2
You've chosen L.EIC022, 3LEIC06

These are the possible classes and respective number of students in L.EIC022 you can choose:
(Please note that it can be more challenging to switch to a class with a larger number of students compared
 to one with fewer students.)
1. 3LEIC01: 14
2. 3LEIC02: 18
3. 3LEIC03: 20
4. 3LEIC04: 19
5. 3LEIC05: 19
6. 3LEIC07: 15
7. 3LEIC08: 19
8. 3LEIC09: 20
9. 3LEIC10: 20
10. 3LEIC12: 20
11. 3LEIC14: 18

Choose the class you'd wish to change to: █
```

```
Choose the class you'd wish to change to: 9
You've chosen to change to 3LEIC10

ChangeClass request enqueued for admin review.

Press ENTER to continue...
```

CHANGE UC

```
Student Code: 202032712
Student Name: Carina
UCs and Classes:
1. UcCode: L.EIC011, ClassCode: 2LEIC07
2. UcCode: L.EIC012, ClassCode: 2LEIC07
3. UcCode: L.EIC013, ClassCode: 2LEIC07
4. UcCode: L.EIC014, ClassCode: 2LEIC07
5. UcCode: L.EIC015, ClassCode: 2LEIC07
6. [Back]

Choose the UC you'd wish to change: 2
You've chosen L.EIC012, 2LEIC07
                                    10
These are the UCs you are not registered in:
(Please be aware that if you change your UC, you will be assigned to a compatible class based on your sched
ule.)
1. L.EIC001
2. L.EIC002
3. L.EIC003
4. L.EIC004
5. L.EIC005
6. L.EIC021
7. L.EIC022
8. L.EIC023
9. L.EIC024
10. L.EIC025
11. UP001

Choose the UC you'd wish to change to: []
```

```
Choose the UC you'd wish to change to: 10
You've chosen to change to L.EIC025

ChangeUc request enqueued for admin review.

Press ENTER to continue...
```

LEAVE UC AND CLASS

```
Student Code: 202037982
Student Name: Carlos
UCs and Classes:
1. UcCode: L.EIC011, ClassCode: 2LEIC15
2. UcCode: L.EIC012, ClassCode: 2LEIC14
3. UcCode: L.EIC013, ClassCode: 2LEIC16
4. UcCode: L.EIC014, ClassCode: 2LEIC16
5. UcCode: L.EIC015, ClassCode: 2LEIC14
6. [Back]


Choose the UC and class you'd wish to leave: 5
You've chosen to leave L.EIC015, 2LEIC14


LeaveUcClass request enqueued for admin review.


Press ENTER to continue...
```

JOIN UC AND CLASS

```
Student Name: Juliano
UCs and Classes:
1. UcCode: L.EIC011, ClassCode: 2LEIC13
2. UcCode: L.EIC012, ClassCode: 2LEIC12
3. UcCode: L.EIC013, ClassCode: 2LEIC16
4. UcCode: L.EIC014, ClassCode: 2LEIC13
5. UcCode: L.EIC015, ClassCode: 2LEIC15
0. [Back]

These are the UCs you are not registered in:
(Please be aware that when you join a new UC, you will be enrolled in a suitable class that aligns with you
r schedule.)
1. L.EIC001
2. L.EIC002
3. L.EIC003
4. L.EIC004
5. L.EIC005
6. L.EIC021
7. L.EIC022
8. L.EIC023
9. L.EIC024
10. L.EIC025
11. UP001

Choose the UC you'd wish to join: 5
You've chosen to join L.EIC005


JoinUcClass request enqueued for admin review.


Press ENTER to continue...
```

SWAP CLASSES BETWEEN STUDENTS

```
Enter student code (1): 202028207
Enter student code (2): 202044187


Student Code: 202028207
Student Name: Julieta
UCs and Classes:
ERROR: Students don't have common UCs.
Press ENTER to continue...
```

```
Enter your choice: 5
Enter student code (1): 202044187
Enter student code (2): 202053537


Student Code: 202044187
Student Name: Julio
UCs and Classes:
1. UcCode: L.EIC011, ClassCode: 2LEIC04
2. UcCode: L.EIC012, ClassCode: 2LEIC04
3. UcCode: L.EIC013, ClassCode: 2LEIC04
4. UcCode: L.EIC014, ClassCode: 2LEIC04
5. UcCode: L.EIC015, ClassCode: 2LEIC04


Student Code: 202053537
Student Name: Juvenal
UCs and Classes:
1. UcCode: L.EIC011, ClassCode: 2LEIC02
2. UcCode: L.EIC012, ClassCode: 2LEIC08
3. UcCode: L.EIC013, ClassCode: 2LEIC02
4. UcCode: L.EIC014, ClassCode: 2LEIC05
5. UcCode: L.EIC015, ClassCode: 2LEIC04


0. [Back]

Choose the class of the UC you'd wish to swap:
```

```
Choose the class of the UC you'd wish to swap: 3
You've chosen L.EIC013:
2LEIC04, Julio
2LEIC02, Juvenal

SwapClasses request enqueued for admin review.

Press ENTER to continue...
```

REQUEST AWAITING FOR REVIEW

```
Enter student code: 202053537

[Pending request]
Student Name: Juvenal
Request Type: SwapClassesRequest
UC Code: L.EIC013
Current Class Code: 2LEIC02
New Class Code: 2LEIC04

Please wait for it to be reviewed...


1. [Back]
2. [Cancel request]


Enter your choice:
```

ADMIN

```
+--------------+
|  Admin Menu  |
+--------------+
1. Process next request
2. Process all requests
3. Change logs
4. [Back]
Enter your choice:
```

```
+------------------+
| Change Requests  |
+------------------+
1. Join UC and Class [to UP001]:
   Requester Student: 202063567 , Justo
UC and class added successfully!
UP001, 1LEIC01

2. Change UC [from L.EIC014 to L.EIC025]:
   Requester Student: 202053537 , Juvenal
Classes with schedule conflicts:
   UC Code: L.EIC011, Class Code: 2LEIC02, Weekday: Tuesday, Start Hour: 8.5, Duration: 2, Type: TP
   UC Code: L.EIC025, Class Code: 3LEIC01, Weekday: Tuesday, Start Hour: 8.5, Duration: 2, Type: TP
UC and class changed successfully!
L.EIC025, 3LEIC02

No requests pending.

Press ENTER to continue...
```

```
+------------------+
|  Change Requests |
+------------------+
1. Leave UC and Class [from L.EIC015 , 2LEIC04]:
   Requester Student: 202044187 , Julio
UC and class removed successfully!

Press ENTER to continue...
```

```
+------------------+
| Occupations Menu |
+------------------+
1. All Change Logs
   Student Code: 202044187
   Student Name: Julio
   Current UC Code: L.EIC015 , Class Code: 2LEIC04
   New UC Code: - , Class Code: -
   State: Accepted
   Notes: -

2. Leave UC and Class (2023-11-04 14:13:04)
   Student Code: 202063567
   Student Name: Justo
   Current UC Code: - , Class Code: -
   New UC Code: UP001 , Class Code: 1LEIC01
   State: Accepted
   Notes: -

3. Change UC (2023-11-04 14:13:04)
   Student Code: 202053537
   Student Name: Juvenal
   Current UC Code: L.EIC014 , Class Code: 2LEIC05
   New UC Code: L.EIC025 , Class Code: 3LEIC02
   State: Accepted
   Notes: -

Press ENTER to continue...
```

```
+--------------------+
|  Occupations Menu  |
+--------------------+
1. All Change Logs
2. Successful Change Logs
3. Unsuccessful Change Logs
4. [Back]
Enter your choice:
```

```
+-------------------------+
|  Successful Changes Logs  |
+-------------------------+

1. Leave UC and Class (2023-11-04 14:12:34)
   Student: 202044187
   Student Name: Julio
   Current UC code: L.EIC015 , Class Code: 2LEIC04
   New UC code: - , Class Code: -
   State: Accepted
   Notes: -

2. Leave UC and Class (2023-11-04 14:13:04)
   Student: 202063567
   Student Name: Justo
   Current UC code: - , Class Code: -
   New UC code: UP001 , Class Code: 1LEIC01
   State: Accepted
   Notes: -

3. Change UC (2023-11-04 14:13:04)
   Student: 202053537
   Student Name: Juvenal
   Current UC code: L.EIC014 , Class Code: 2LEIC05
   New UC code: L.EIC025 , Class Code: 3LEIC02
   State: Accepted
   Notes: -

MENU:
1. UNDO the last change
2. [Back]
Enter your choice:
```

```
MENU:
1. UNDO the last change
2. [Back]
Enter your choice: 1


Last Change request reversed successfully
Press ENTER to continue...
```

```
+--------------------------+
|  Unsuccessful Changes Logs  |
+--------------------------+

1. Change UC (2023-11-04 14:13:04)
   Student: 202053537
   Student Name: Juvenal
   Current UC code: L.EIC014 , Class Code: 2LEIC05
   New UC code: L.EIC025 , Class Code: 3LEIC02
   State: Denied
   Notes: REQUEST RESULT REVERSED BY ADMINISTRATOR

Press ENTER to continue...
```