

# SE116 PROJECT

## RAGNAROK INFORMATION SYSTEM

- We wanted to develop a Project similar to our OASIS System as a group. (Erşen Pamuk, Berk Özüm Kaya, Hakan Turinay)
- We will introduce our SE 116 Project in this document.

# Welcome to Ragnarok InformationSystem

## Main Menu:

- As you see, we have 3 types of login in this Project.

---

```
||||| | | | | |
|||||WELCOME TO RAGNAROK INFORMATION SYSTEM!|||||
|||||If you are a STUDENT please enter 1 to join!|||||
|||||If you are a TEACHER please enter 2 to join!|||||
|||||If you want to join as an ADMINISTRATION please enter 3 to join!|||||
```

## 1.a) Login Screen(for student, input 1)

- If you are student, you will see output like this. There is a important thing here!
- There are 2 IDs available in this output.  
(correct ID:201606010=Software Engineering)  
(correct ID:201606020=Computer Engineering)

1

You are trying to join as a student...

Please enter the first 9 digits of your ID: 201606010

Please enter your name: Erşen

What would you like to do Erşen?

|||||

# 1.b Functions of Student

```
|||||  
Press 1 to see grades of your class.  
Press 2 to see your profile.  
Press 3 to see absenteeisms.  
Press -1 to exit.  
|||||
```

- These are the functions of student.

# 1.c - Display of Grades process(for input 1)

```
Please enter your name: Erşen
What would you like to do Erşen?
|||||
Press 1 to see grades of your class.
Press 2 to see your profile.
Press 3 to see absenteeisms.
Press -1 to exit.
|||||
1
Please enter '116' to see notes of SE116.
Please enter '154' to see notes of MATH154.
116
These are the notes of SE116:
|||||
INDEX      Students      NOTES
1          ERŞEN PAMUK      =====> 82
2          RANA GÜLER      =====> 81
3          BERK ÖZÜM KAYA   =====> 37
4          HAKAN TURİNAY   =====> 56
5          ZUHAL ASLANCAN   =====> 24
6          UMUTCAN HAZIR    =====> 62
7          UTKU DURMUS      =====> 81
8          ÖZGÜR BULUT      =====> 51
9          EREL ÖZTÜRK      =====> 42
10         ALİ GİLİM        =====> 34
11         GİZAY EROĞLU     =====> 10
12         SİLA TEKCAN      =====> 64
13         ARDA GÜNAY       =====> 100
14         KUTAY KOYLAN     =====> 99
What would you like to do Erşen?
|||||
Press 1 to see grades of your class.
Press 2 to see your profile.
Press 3 to see absenteeisms.
Press -1 to exit.
|||||
```

- This is the display grades function.

# 1.d - Display of profile(for input 2)

```
What would you like to do Erşen?  
|||||  
Press 1 to see grades of your class.  
Press 2 to see your profile.  
Press 3 to see absenteeisms.  
Press -1 to exit.  
|||||  
2  
Your name is Erşen  
Your ID is 201606010  
Your department is Software Engineering.  
What would you like to do Erşen?  
|||||
```

- This is the display profile function.

# 1.e - Exit(for input -1)

- The system quits when the user presses -1.

```
|||||WELCOME TO RAGNAROK INFORMATION SYSTEM!|||||
|||||If you are a STUDENT please enter 1 to join!|||||
|||||If you are a TEACHER please enter 2 to join!|||||
|||||If you want to join as an ADMINISTRATION please enter 3 to join!|||||
1
You are trying to join as a student...
Please enter the first 9 digits of your ID: 201606010
Please enter your name: Berk
What would you like to do Berk?
|||||
Press 1 to see grades of your class.
Press 2 to see your profile.
Press 3 to see absenteeisms.
Press -1 to exit.
|||||
-1
Goodbye Berk!
```

## 2.a - Login Screen(for teacher, input 2)

- If you are lecturer, you will see output like this.
- There is two ID available in this output.
- (correct ID:9991=SE116 lecturer)
- (correct ID:9992=Math154 lecturer)

```
2
You are trying to join as a teacher...
Please enter your ID: 9991
Please enter your name: İlker
You joined as İlker
Your ID is 9991
Your lesson is SE116.
|||||
```

- There are 2 IDs available in this login too.
- 1. ID is 9991 for SE116 Lecturer login, 2. ID is 9992 for MATH154 Lecturer login.



# 2.b- Menu For Teacher

```
Your lesson is SE116.  
|||||  
Please enter 1 to display notes.  
Please enter 2 to display absenteeism of your lecture.  
Please enter 3 to edit notes.  
Please enter 4 to edit absenteeisms of your lecture.  
Please enter 5 to display analytics of notes.  
Please enter -1 to exit.  
|||||
```

- These are the functions of the Teacher.
- The Student login has the same functions such as display absenteeisms and display grades. Differences here are editing notes, editing grades and displaying analytics of notes.

## 2.c- Edit Notes(for input 3)

Before edit

```
|||||
INDEX  Students  NOTES
1      ERŞEN PAMUK  =====> 82
2      RANA GÜLER   =====> 81
3      BERK ÖZÜM KAYA =====> 37
4      HAKAN TURİNAY =====> 56
5      ZUHAL ASLANCAN =====> 24
6      Umutcan HAZIR =====> 62
7      UTKU DURMUS  =====> 81
8      ÖZGÜR BULUT  =====> 51
9      EREL ÖZTÜRK  =====> 42
10     ALİ GİLİM    =====> 34
11     GİZAY EROĞLU =====> 10
12     SILA TEKCAN  =====> 64
13     ARDA GÜNAY   =====> 100
14     KUTAY KOYLAN =====> 99
Which student do you want to edit?(Please write their index.)
3
Please enter a note for this student.
100
Changed like this.
3      BERK ÖZÜM KAYA  100
|||||
```

After edit

```
|||||
INDEX  Students  NOTES
1      ERŞEN PAMUK  =====> 82
2      RANA GÜLER   =====> 81
3      BERK ÖZÜM KAYA =====> 100
4      HAKAN TURİNAY =====> 56
5      ZUHAL ASLANCAN =====> 24
6      Umutcan HAZIR =====> 62
7      UTKU DURMUS  =====> 81
8      ÖZGÜR BULUT  =====> 51
9      EREL ÖZTÜRK  =====> 42
10     ALİ GİLİM    =====> 34
11     GİZAY EROĞLU =====> 10
12     SILA TEKCAN  =====> 64
13     ARDA GÜNAY   =====> 100
14     KUTAY KOYLAN =====> 99
|||||
Please enter 1 to display notes.
Please enter 2 to display absenteeism of your lecture.
Please enter 3 to edit notes.
Please enter 4 to edit absenteeisms of your lecture.
Please enter 5 to display analytics of notes.
Please enter -1 to exit.
|||||
```

## 2.d - Average Notes(input 5,3)

5

```
-----  
Please enter 1 to see the minimum note of your class.  
Please enter 2 to see the maximum note of your class.  
Please enter 3 to see the averages of notes of your class.  
Please enter 4 to see how many students are successfull.  
-----
```

3

```
The average of these notes is 54.86666666666667  
|||||
```

- This is the display analytics of notes function.

## 2.e - Edit Absenteeism (for input 4)

```
These are absenteeism of SE116 class section:
|||||
INDEX  Students      ABSENTEEISMS
1      ERŞEN PAMUK    =====> 6
2      RANA GÜLER     =====> 2
3      BERK ÖZÜM KAYA  =====> 7
4      HAKAN TURİNAY  =====> 19
5      ZUHAL ASLANCAN  =====> 16
6      UMTAN HAZİR     =====> 19
7      UTKU DURMUS     =====> 8
8      ÖZGÜR BULUT     =====> 2
9      EREL ÖZTÜRK     =====> 10
10     ALİ GİLİM       =====> 13
11     GİZAY EROĞLU    =====> 18
12     SILA TEKCAN     =====> 11
13     ARDA GÜNAY      =====> 4
14     KUTAY KOYLAN    =====> 8
Which student do you want to edit?(please write their index.)
1
Please enter a new abseentism value for this student.
0
Changed like this.
1      ERŞEN PAMUK      0
|||||
Please enter 1 to display notes.
Please enter 2 to display absenteeism of your lecture.
Please enter 3 to edit notes.
Please enter 4 to edit absenteeisms of your lecture.
Please enter 5 to display analytics of notes.
Please enter -1 to exit.
|||||
2
These are the absenteeisms of SE116:
|||||
INDEX  Students      ABSENTEEISM.
1      ERŞEN PAMUK    =====> 0
2      RANA GÜLER     =====> 2
3      BERK ÖZÜM KAYA  =====> 7
4      HAKAN TURİNAY  =====> 19
5      ZUHAL ASLANCAN  =====> 16
6      UMTAN HAZİR     =====> 19
7      UTKU DURMUS     =====> 8
8      ÖZGÜR BULUT     =====> 2
9      EREL ÖZTÜRK     =====> 10
10     ALİ GİLİM       =====> 13
11     GİZAY EROĞLU    =====> 18
12     SILA TEKCAN     =====> 11
13     ARDA GÜNAY      =====> 4
14     KUTAY KOYLAN    =====> 8
|||||
Please enter 1 to display notes.
Please enter 2 to display absenteeism of your lecture.
```

- This is the edit absenteeism function. You can easily see the change.

## 2.f - Exit(input-1)

```
|||||
Please enter 1 to display notes.
Please enter 2 to display absenteeism of your lecture.
Please enter 3 to edit notes.
Please enter 4 to edit absenteeisms of your lecture.
Please enter 5 to display analytics of notes.
Please enter -1 to exit.
|||||
-1
Goodbye İlker hocam!
```

- The system quits when the user presses -1.

# 3.a Login Screen and Menu(for Administration, input 3)

```
|||||WELCOME TO RAGNAROK INFORMATION SYSTEM!|||||
|||||If you are a STUDENT please enter 1 to join!|||||
|||||If you are a TEACHER please enter 2 to join!|||||
|||||If you want to join as an ADMINISTRATION please enter 3 to join!|||||
3
You are trying to join as an Administration...
Please enter your ID: 0001
Please enter your name: Can
You joined as Can
|||||
Please enter 1 to edit notes.
Please enter 2 to display grades.
Please enter 3 to display absenteeism of your lecture.
Please enter 4 to edit absenteeisms of your lecture.
Please enter 5 to display analytics of notes.
Please enter 6 to add GPA point
Please enter 7 to see GPA points
Please enter 8 to see Course and Exam Programs
Please enter 9 to edit Course and Exam Programs
Please enter -1 to exit.
|||||
```

- There is only one ID available in this login which is 0001.
- These are the functions of the Administration.
- The Teacher login has the same functions such as display absenteeism, display grades, edit absenteeism, edit grades and display analytics. Differences here are add GPA, see GPAs, see Course and Exam programs and editing them.



### 3.b - Add GPA Points(for input 6)

```
|||||
INDEX  Students
1      ERŞEN PAMUK
Enter the GPA of student
2,70
2      RANA GÜLER
Enter the GPA of student
3,20
3      BERK ÖZÜM KAYA
Enter the GPA of student
2,25
4      HAKAN TURİNAY
Enter the GPA of student
2,80
5      ZUHAL ASLANCAN
Enter the GPA of student
1,80
6      UMUTCAN HAZIR
Enter the GPA of student
2,35
7      UTKU DURMUS
Enter the GPA of student
2,40
8      ÖZGÜR BULUT
Enter the GPA of student
1,40
9      EREL ÖZTÜRK
Enter the GPA of student
3,50
10     ALİ GİLİM
Enter the GPA of student
2,15
11     GİZAY EROĞLU
Enter the GPA of student
2,40
12     SILA TEKCAN
Enter the GPA of student
2,30
13     ARDA GÜNAY
Enter the GPA of student
3,70
14     KUTAY KOYLAN
Enter the GPA of student
3,70
|||||
```

### 3.c - See GPA Points(for input 7)

```
14     KUTAY KOYLAN
Enter the GPA of student
3,70
|||||
Please enter 1 to edit notes.
Please enter 2 to display grades.
Please enter 3 to display absenteeism of your lecture.
Please enter 4 to edit absenteeisms of your lecture.
Please enter 5 to display analytics of notes.
Please enter 6 to add GPA point
Please enter 7 to see GPA points
Please enter 8 to see Course and Exam Programs
Please enter 9 to edit Course and Exam Programs
Please enter -1 to exit.
|||||
7
These are the GPA's of SE116:
|||||
INDEX  Students      GPA
1      ERŞEN PAMUK    =====> 2.7
2      RANA GÜLER     =====> 3.2
3      BERK ÖZÜM KAYA =====> 2.25
4      HAKAN TURİNAY  =====> 2.8
5      ZUHAL ASLANCAN =====> 1.8
6      UMUTCAN HAZIR  =====> 2.35
7      UTKU DURMUS    =====> 2.4
8      ÖZGÜR BULUT    =====> 1.4
9      EREL ÖZTÜRK    =====> 3.5
10     ALİ GİLİM      =====> 2.15
11     GİZAY EROĞLU   =====> 2.4
12     SILA TEKCAN    =====> 2.3
13     ARDA GÜNAY     =====> 3.7
14     KUTAY KOYLAN   =====> 3.7
|||||
```

### 3.d Edit Course and Exam Programs(for input 9)

### 3.e See Course and Exam Programs(for input 8)

```
|||||
8
Course and Exam Programs:
SE116 M303 23 May 13:30
MATH154 C501 26 May 17:45
|||||
Please enter 1 to edit notes.
Please enter 2 to display grades.
Please enter 3 to display absenteeism of your lecture.
Please enter 4 to edit absenteeisms of your lecture.
Please enter 5 to display analytics of notes.
Please enter 6 to add GPA point
Please enter 7 to see GPA points
Please enter 8 to see Course and Exam Programs
Please enter 9 to edit Course and Exam Programs
Please enter -1 to exit.
|||||
9
Which lecture's plan you want to edit (116 for SE116 / 154 for MATH154)
116
Press 1 to edit place
Press 2 to edit date
Press 3 to edit time
2
Enter the new day
29
Enter the new month
May
|||||
Please enter 1 to edit notes.
Please enter 2 to display grades.
Please enter 3 to display absenteeism of your lecture.
Please enter 4 to edit absenteeisms of your lecture.
Please enter 5 to display analytics of notes.
Please enter 6 to add GPA point
Please enter 7 to see GPA points
Please enter 8 to see Course and Exam Programs
Please enter 9 to edit Course and Exam Programs
Please enter -1 to exit.
|||||
8
Course and Exam Programs:
SE116 M303 29 May 13:30
MATH154 C501 26 May 17:45
|||||
<
```



## 3.f Exit(for input -1)

```
|||||
Please enter 1 to edit notes.
Please enter 2 to display grades.
Please enter 3 to display absenteeism of your lecture.
Please enter 4 to edit absenteeisms of your lecture.
Please enter 5 to display analytics of notes.
Please enter 6 to add GPA point
Please enter 7 to see GPA points
Please enter 8 to see Course and Exam Programs
Please enter 9 to edit Course and Exam Programs
Please enter -1 to exit.
|||||
-1
Goodbye Can hocam!
```

- The system quits when the user presses -1.

# SUMMARY OF RAGNAROK

The purpose of the student information project that we developed is instead of displaying different programs which have different features to use only one program and simplify the process.

The services of our applications consist of 3 phases. The first step is through the student class and second step through the teacher's class and the last one is administration class. Besides we have a total of 5 classes. When we start the program, three options are displayed. You need to press the '1' to select the student class. After selecting the student class you need to input your 9 digits student ID. If you input '201606010', you will be joined as a software engineering student but if you input '201606020', you will be joined as a computer engineering student. After inputting the number you will be asked for your name. Then, you will be presented with 3 options. For viewing your grades you will be asked to use '1', for viewing your profile, '2' or for viewing your absenteeism, '3'. There are different codes for viewing your grades and absenteeism for each class. For example you need to enter '116' to view your grades and absenteeism for your programming class and '154' for math class. In case you enter accidentally a different code than these you will be re-directed automatically to the main menu. When you are finished with the student transactions you can exit the program with '-1'. When we select the teacher's options, you will have to enter two different numbers such as '9991' for 'SE116' and '9992' for 'MATH154'. Then the teacher's name is asked. The teacher is able to view and edit absenteeism, grades and profiles. The teacher can also get information about the class average, lowest and highest grades. And finally, when we you join as an administration you will have to enter '0001'. After you write the ID, the system will ask an user name. Then you will see 9 different options about GPA points, courses and exams etc... You can change the date and place of exams or GPA points. '-1' will exit the program.

- We are not exactly sure did we use the **Run-time Polymorphism** correctly or not but this is were we used it.

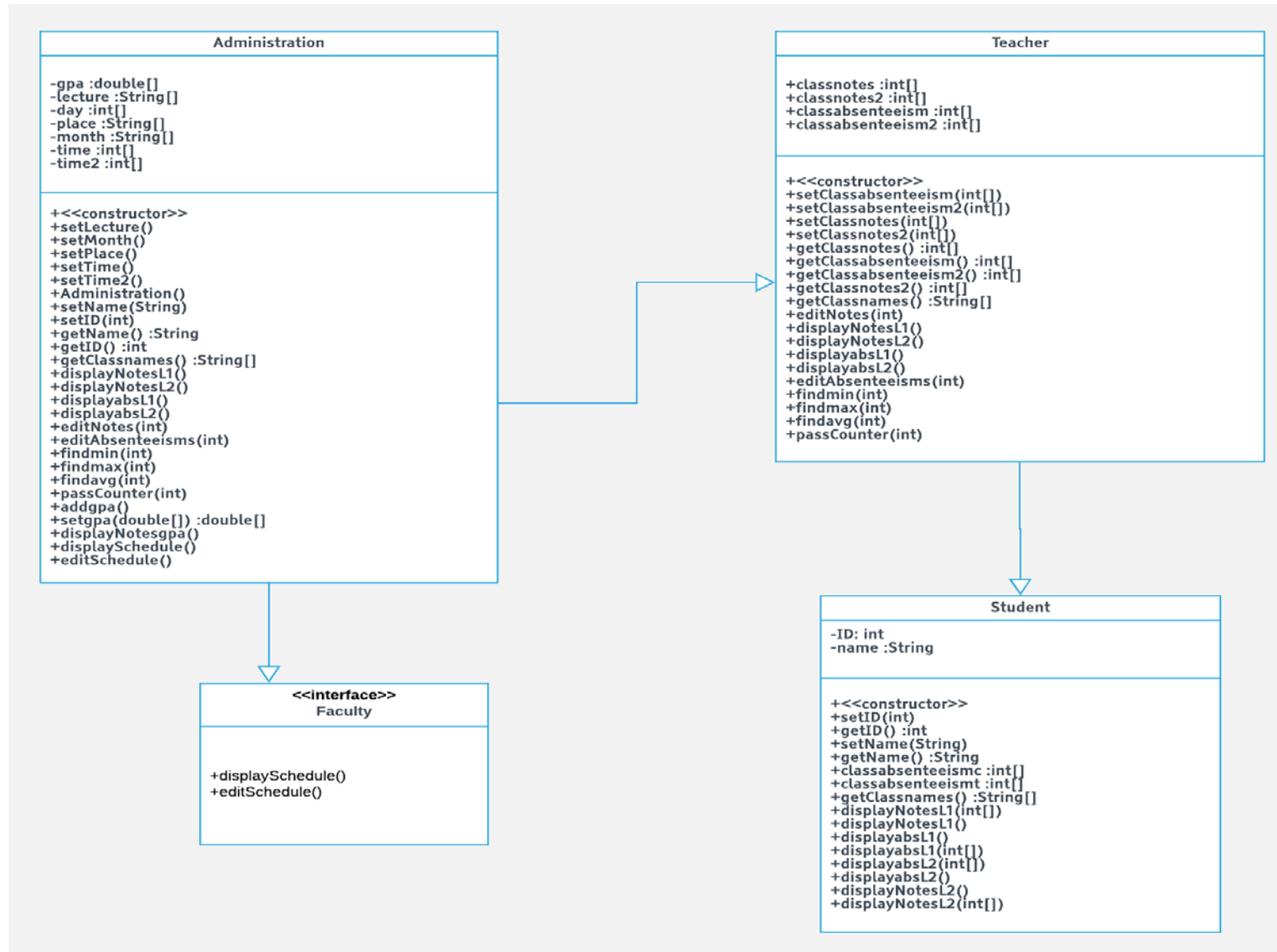
```
@Override
public void displayNotesL1() {
    super.displayNotesL1(getClassnotes()); //Run-time Polymorphism
}

@Override
public void displayNotesL2() {
    super.displayNotesL2(getClassnotes2()); //Run-time Polymorphism
}

@Override
public void displayabsL1() {
    super.displayabsL1(getClassabsenteeism()); //Run-time Polymorphism
}

@Override
public void displayabsL2() {
    super.displayabsL2(getClassabsenteeism2()); //Run-time Polymorphism
}
```

# This is the our UML Class Diagram



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