ALEXANDRIA
UNIVERSITY

جامعة الإسكندرية

كلية الحاسبات وعلوم البيانات

Computing and Data Science

1th Year

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ABSTRACT

Student Registration System for Universities (SRSU) as a kind of management information system can not only record the information for student registration each term quickly and efficiently, but also do statistics on the students' basic information, registration information, payment information and contact information. This application help us to calculate GPA of our students and gives results of the analysis. Our result is shown on the console.

Users of the system:

- ✓ **Student** is the user of the system

When the user open the application, the app ask him to enter his personal information , his grades , his courses , his payments and calculate his GPA.

What does our system do?

- **Take student information:**
  - Our app take the name of student
  - let him choose the company of communication company to enter the phone number
  - choose nationality
  - choose his gender
  - enter home number
  - enter his date of birth
  - calculate his age
  - enter his place where he was born
  - enter his ID
  - choose his department
  - generate the student registration number
  - print the student details
  - enter number of subjects that he wants to register
  - enter the id and name of subject and store these subject and IDs in arraylist
  - enter the grade of each subject and the credit hours and store these information into arraylist
  - calculate the GPA of the student

The Implementation:

- **Our app consists of 5 classes:**
  - Courses_GPA that inherits from student class and contains 5 methods:
    - Get subject that take subjects from students
    - getDoctorName that take the names of university-doctors
    - getGrades that takes grades from students
    - getHours that takes the credits hours
    - calc_gpa that calculate the GPA of student
  -

```
 99   public void getHours(){
100       Scanner input = new Scanner(System.in);
101       for(int i = 0;i<subjects.size();i++){
102       System.out.println("What is the credit hours for subjcect "+subjects.get(i));
          int hours=input.nextInt();
104       ghours.add(i, hours);}
105       System.out.println("The credit hours for"+subjects);
106       System.out.println(ghours);}
107   public void calc_gpa(){
108     int i;
        double total_h=0;
110     Scanner input=new Scanner(System.in);
111     System.out.println("How many courses did you take this term ?");
112     int t=input.nextInt();
113     for(i=0;i<t;i++){
114     System.out.println("what is the name of course "+(i+1));
115     System.out.println(subjects);
116     System.out.println(subjects_grades);
117     String course=input.next();
118     if(subjects.contains(course)){
119     int x=subjects.indexOf(course);
120     total_h+=ghours.get(x);
121     sum+=(subjects_grades.get(x)*ghours.get(x));
122     }}
123       GPA=(sum)/(total_h);
124       System.out.println("GPA is :"+GPA);
```

- data_strucures that contains the main methods to call the other methods and run program

```java
1    package data_strucures;
2  □ import java.util.*;
3    public class Data_strucures {
4  □ public static void main(String[] args) {
5    ArrayList<Students> s =new ArrayList(3);
6    ArrayList<Courses_GPA> g=new ArrayList(3);
7    ArrayList<StudentPayments> p =new ArrayList(3);
8    ArrayList<css> c =new ArrayList(3);
9    Courses_GPA g1=new Courses_GPA();
10   Courses_GPA g2=new Courses_GPA();
11   Courses_GPA g3=new Courses_GPA();
12   Students s1=new Students();
13   Students s2=new Students();
14   Students s3=new Students();
15   StudentPayments p1 = new StudentPayments();
16   StudentPayments p2 = new StudentPayments();
17   StudentPayments p3 = new StudentPayments();
18   css c1=new css();
19   css c2=new css();
20   css c3=new css();
21   s.add(s1);
22   g.add(g1);
23   p.add(p1);
24   c.add(c1);
```

- StudentPayments that inherit from student class and contains methods of payments.

```java
13   import java.util.Date;
     public class StudentPayments extends Students {
15
16       Scanner in = new Scanner(System.in);
17     protected String TypeOfFunding;
18       protected int NumberOfPaymentsDone;
19       int TotalAmountPaidSoFar;
20       protected Object[] PayDetails = new Object[4];
21       int AmountPaid;
22       int TransactionNumber;
23       String BankOfTransaction;
24       Date TransactionDate;
25
26 □     public StudentPayments() {
27       }
28
29 □     public StudentPayments(String TypeOfFunding, int NumberOfPaymentsDone, int TotalAmountPaidSoFar, int AmountPaid, in
30           this.TypeOfFunding = TypeOfFunding;
31           this.NumberOfPaymentsDone = NumberOfPaymentsDone;
32           this.TotalAmountPaidSoFar = TotalAmountPaidSoFar;
33           this.AmountPaid = AmountPaid;
34           this.TransactionNumber = TransactionNumber;
35           this.BankOfTransaction = BankOfTransaction;
```

- Students

```java
52  public String Studentcontact(){
53          Scanner n=new Scanner(System.in);
54      System.out.println("Enter your email");
55       email=n.next();
56      if(email.contains("@")){
57       System.out.println("Modify your home Phone Number(Y/N)");
58       char j=n.next().charAt(0);
59       if(j=='y' || j=='Y'){
60      System.out.println("Enter your home phone num");
61      System.out.print(homee);
62       home_num=n.next();
63       if(home_num.length()==7){
64       f_home=(homee)+(home_num);
65          System.out.println("Your home number is :"+home);
66       System.out.println("Modify your home Phone Number(Y/N)");
67          char m=n.next().charAt(0);
68        if(m=='y' || j=='Y'){
69      System.out.println("Enter your phone num");
70       getPhone();
71        }
72      else {
73          System.out.println("Please enter a correct e-mail.");
74          Studentcontact();}
```

```
Enter first name :
abdullah
Enter Middle name
hussien
Enter last name
gowely
Please choose  the Company  of your phone number
1-Vodafone
 2-Etisalat
 3-Orange
 4-We
2
01155511870
your number is :01155511870
What is you nationality ?
1-Egyptian
 2-Saudian
 3-Morocan
1
Press M for Male
 Press N for Female
m
Enter your email
abdullah.hussien@gmail.com
Modify your home Phone Number(Y/N)
N
Please enter year you were born
2001
Please enter Month you were born
4
Please enter day you were born
1
You were born :
1\4\2001
Your age is :21years old
Enter the flat number :
1
```

```
Enter the house number
3
Enter the street name |
mortada
Enter the area name
janaklees
Enter the city name
alexandria
Enter Government name
idk
Enter the Country name
egypt
Enter the postal code
2211
Enter your id
13
Enter your term
2
Choose your Department
1-General
 2-Healthcare
 3-cyber security
 4-Media
 5-Buisness
1
The student id is :2022225010013
The students derails :
First name : abdullah
Middle name : hussien
Last name : gowely
Gender : null
Year : 2001
Month : 4
Day : 1
Gender : null
Age : 21
email : abdullah.hussien@gmail.com
Flat number name : 1
```