Submitted to: **Sir Ali Zaib**

Submitted by: **Syed Maaz Shah**

Reg no#: **CS120192143**

Title: **Exam Management System**

For creating program for simple exam management system we will create the following classes and each class will be composed of the following attributes and Methods.

1. Student class:

Attributes:

- Student Name.
- Father Name.
- Registration Number.
- Contact Number.
- E-mail Address.
- Home Address (Current & Permanent).
- Program.
- Department.
- Semester.
- Properties.

Methods:

- Set methods for all instance variables.
- Get methods for all instance variables.
- toString()

We can also create a constructer for our class to initialize our instance variables.

2. Course class:

Attributes:

- Course name.
- Course code.
- Program name.
- Session.
- Course registration.

Methods:
- Set methods for all instance variables.
- Set methods for all instance variables.

- isCourseRegistered().
- toString().

We can also create a constructer to initialize all our instance variables in our class.

3. <u>Paper Class:</u>

<u>Attributes:</u>

- Paper's title.
- Paper id number.
- Course code.
- Course in charge.
- Decipline.
- Semester.
- Program names.
- Date
- Time.
- Type of the exam.
- Invigilator.
- Location.
- Number of students.

Note: The Date and Time will be user defined Data Type.

<u>Methods:</u>

- Set methods for all instance variables.
- Get methods for all instance variables.
- toString().

We can also create a constructer in our class to initialize our instance variables.

4. <u>Faculty Class:</u>

<u>Attributes</u>:

- Faculty Name**.**
- Number of faculty members.
- Name of faculty member.
- Designation.
- Contact Number.
- E-mail Address.
- Member id.

Methods:

- Set methods for all instance variables.
- Get methods for all instance variables.
- toString().
- We can also create a constructer for our class to initialize our instance variables.

5. Marks class:

Attributes:

- Student Name.
- Registration Number.
- Subject.
- Marks.

Methods:

- Set methods for all instance variables.
- Get methods for all instance variables.
- gradeCalculation().[This method will calculate the grade of the student in a subject on the basis of marks of the corresponding subject]
- toString().

6. Examination Class:

Attributes:

- Exam type.
- Exam Starting Date.
- Exam finishing Date.
- Year.
- Session.

Methods:

- Set methods for all instance variables.
- Get methods for all instance variables
- durationOfExam().
- toString().

We can also create constructer in our class to initialize our instance variables.

7. Date Sheet Class:

Attributes:

- Subject.
- Date.
- Time.

Methods:

- Set methods for all instance variables.

- Get methods for all instance variables.
- toString().

We can also create a constructer in our class to initialize our instance variables.

8. <u>Date Class:</u>

Attributes:

- Day.
- Month.
- Year.

Methods:

- toString().

Constructer:

Constructer is mandatory in this class.

9. <u>Time Class:</u>

Attributes:

- Hours.
- Minutes.
- Seconds.

Methods:

- toString().

Constructer:

Constructer is mandatory in this class too.

10. <u>Main Class:</u>

Attributes:

We won't add any attribute in this class.

Methods:

- Main Method (public static void main(String[] args).

Objects:

- We will create the objects of all our classes in our main class.
- Then we will print the output.