TASK#01 (SCHOOL MANAGEMENT SYSTEM)

CODE:

MODULE #01

```
package schoolmanagementsystem;

public class Module1 {
    String Sname,Fname,Class,lastclass; double passpercent;int rollno;
    public void StudentsBiodata(String Sname,String Fname,String Class,String lastclass,double passpercent,int rollno){
        this.Sname=Sname;
        this.Fname=Fname;
        this.Class=Class;
        this.lastclass=lastclass;
        this.passpercent=passpercent;
        this.rollno=rollno;
    }

    void display(){
        System.out.println("-----------------------------------------------------");
        System.out.println("Student's Name: "+Sname);
        System.out.println("Father's Name: "+Fname);
        System.out.println("Roll#: "+rollno);
        System.out.println("Class :"+Class);
        System.out.println("Last Class that has been passe: "+lastclass);
        System.out.println("Gained Passing Marks: "+passpercent+"%");
        System.out.println("");
        System.out.println("-----------------------------------------------------");

    }
}
```

MODULE #02

```
package schoolmanagementsystem;
public class Module2 {
    public void FeesStructure(){
        System.out.println("The Fee criteria in this school is mention below, Please have a look ");
        System.out.println("ADMISSION FEE: "+10000+"Rs");
        System.out.println("MONTHLY FEE: "+2500+"Rs");
        System.out.println("EXTRACIRCULUM FEE: "+1000+"Rs");
        System.out.println("GAME/SPORTS FEE: "+500+"");
        System.out.println("In total Amount: "+14000+"Rs");

        System.out.println("NOTE: IF YOU WILL NOT PAY THE FEE YOU CAN NOT GET THE STUDENTS RESULT");
        System.out.println("\n");}
```

```
        double admfee,monthfee,extracirfee,gamefee,totalamount;
    public void Fees(double admfee,double montfee,double extracirfee,double gamefee,double totalamount){
    this.admfee=admfee; this.extracirfee=extracirfee; this.monthfee=montfee; this.gamefee=gamefee; this.totalamount=totalamount;
    }

    void payement(){
        System.out.println("-----------------------------------------------------");
        System.out.println("You have paid: "+admfee);
        System.out.println("You have paid: "+monthfee);
        System.out.println("you have paid: "+extracirfee);
        System.out.println("you have paid: "+gamefee);
        System.out.println("you have exact paid the total amount Rs:"+totalamount);

        System.out.println("Now you can collect the students report card");System.out.println("\n");
    }
}
```

MODULE #03

```
package schoolmanagementsystem;
      double eng,phy,percent,totalmarks;
 public void Marks(double eng,double phy){
 this.eng=eng;
 this.phy=phy;
 }

 public void Result(){
       System.out.println("-----------------------------------------------------");
       totalmarks=eng+phy;
       System.out.println("The total marks of two subjects are: "+totalmarks);

       percent=(totalmarks*100)/200;

       System.out.println("Total Percentage= "+percent+"%");

       if(percent >= 80.00 && percent<=100.00 ){
            System.out.println("Grade: A+");}
       else if(percent < 80.00 && percent>70.00){
            System.out.println("Grade: A");}
       else if(percent < 70.00 && percent>60.00){
            System.out.println("Grade: B");}
       else if(percent < 60.00 && percent>50.00){
            System.out.println("Grade: C");}
```

```
        else if(percent < 50.00 && percent>40.00){
              System.out.println("Grade: D");}
        else{
              System.out.println("Grade: F");}
        System.out.println("");
        System.out.println("-----------------------------------------------------");}
}
```

SCHOOL MANAGEMENT SYSTEM (MAIN CLASS):

```
package schoolmanagementsystem;
import java.util.*;
public class SchoolManagementSystem {

      public static void main(String[] args) {
      Scanner obj=new Scanner(System.in);

            int select=0;

          while(select!=4){
                System.out.println("N0TE: YOU HAVE TO PROCESS ALL THE STEPS ONE BY ONE");
                System.out.println("Menu & Module Option");
                System.out.println("1- Student's Detail");
                System.out.println("2- Fee Payements");
                System.out.println("3- Percentage Calculation & Status");
                System.out.println("4- EXIT ");

                System.out.println("Select the page by inserting the no#");
                select=obj.nextInt();
                System.out.println("-----------------------------------------------");
                switch(select){
                      case 1:

                            Module1 obj1=new Module1();

                            System.out.println("Enter Student's name");
                            obj1.Sname=obj.nextLine();
                                obj1.Sname=obj.nextLine();

                              System.out.println("Enter Roll Number");
                            obj1.rollno=obj.nextInt();

                            System.out.println("Enter Father's name ");
                            obj1.Fname=obj.nextLine();
                            obj1.Fname=obj.nextLine();
                            System.out.println("Enter Student's Class");
```

```
                obj1.Class=obj.nextLine();

                System.out.println("Enter Last class that student has passed");
                obj1.lastclass=obj.nextLine();


                System.out.println("Enter the previous previous percentage% that students has gained in "+obj1.lastclass+" class");
                obj1.passpercent=obj.nextDouble();
                System.out.println("\n");
                obj1.StudentsBiodata(obj1.Sname, obj1.Fname, obj1.Class, obj1.lastclass, obj1.passpercent, obj1.rollno);
                obj1.display();


            case 2:
                Module2 obj2=new Module2();
                obj2.FeesStructure();

                System.out.println("Welcome to the FEE COUNTER Desk ");

                System.out.println("Please, Pay the Admission Fee Rs 10,000 ");
                obj2.admfee=obj.nextDouble();
                if(obj2.admfee !=10000){
                    System.out.println("No, You have to pay exactly 10000 Rs otherwise you can not get the student's report card");
                    System.out.println("Enter 10000Rs for Admission fee ");
                    obj2.admfee=obj.nextDouble();}
                else{
                    System.out.println("Admission fee accepted");}


                System.out.println("Please, Pay Monthly Fee Rs 2,500");
                obj2.monthfee=obj.nextDouble();
                if(obj2.monthfee !=2500){
                    System.out.println("No, You have to pay exactly 2500 Rs otherwise you can not get the student's report card");
                    System.out.println("Enter 2500Rs for Monthly tuition fee ");
                    obj2.admfee=obj.nextDouble();}
                else{
                    System.out.println("Monthly fee accepted");
                }


                System.out.println("Please, Pay the Extracirculum Fee    Rs 1000");
                obj2.extracirfee=obj.nextDouble();
```

```
                    if(obj2.extracirfee !=1000){
                        System.out.println("No, You have to pay exactly 1000 Rs otherwise you can not get the student's report card");
                        System.out.println("Enter 1000Rs for Monthly tuition fee ");
                        obj2.extracirfee=obj.nextDouble();}
                    else{
                        System.out.println("Extracirculum fee accepted");}
                    System.out.println("\n");

                    System.out.println("Please, Pay the Sports/Game Fee Rs 500");
                    obj2.gamefee=obj.nextDouble();
                     if(obj2.gamefee !=500){
                        System.out.println("No, You have to pay exactly 500 Rs otherwise you can not get the student's report card");
                        System.out.println("Enter 500 Rs for Monthly tuition fee ");
                        obj2.gamefee=obj.nextDouble();}
                    else{
                        System.out.println("Game/Sports fee accepted");
                         System.out.println("\n");}

obj2.totalamount=obj2.admfee+obj2.monthfee+obj2.extracirfee+obj2.gamefee;
                    obj2.Fees(obj2.admfee, obj2.monthfee, obj2.extracirfee, obj2.gamefee,obj2.totalamount);

                    obj2.payement();



                        case 3:
                            Module3 obj3=new Module3();
                            System.out.println("--------------------------------");
                            System.out.println("Enter your  English Marks out of 100");
                            obj3.eng=obj.nextDouble();
                            if(obj3.eng >= 50 && obj3.eng <=100){
                                System.out.println("English Status: PASSED");}
                            else{
                                System.out.println("English Status: FAILED ");}
                            System.out.println("Enter your Physics Marks out of 100");
                            obj3.phy=obj.nextDouble();
                            if(obj3.phy >= 50 && obj3.phy <=100){
                                System.out.println("Physics Status: PASSED");}
                            else{
                                System.out.println("Physics status: FAILED");}
```

```
                    obj3.Marks(obj3.eng, obj3.phy);

                    obj3.Result();
            break;
                default:
                    System.out.println("You have left the menu card");
                 }
            }
        }

    }
```

TASK#02 LIBRARY MANAGEMENT SYSTEM

CODE:

MODULE 1

```
package librarymanagementsystem;
public class Module1 {
    String name,fname,Class,Unid,id;
    public void UserInfo(String N, String FN, String C,String Uni,String id){
    name=N;
    fname=FN;
    Class=C;
    Unid=Uni;
    id=id;
    }

   public void Display(){
        System.out.println("User Name: "+name);
        System.out.println("Father's Name: "+fname);
        System.out.println("Class: "+Class);
        System.out.println("University Id: "+Unid);
        System.out.println("Id: "+id);
   }
}
```

MODULE 2

```
package librarymanagementsystem;
public class Module2 {

    public void PhysicsDepartment(){
        System.out.println("The availability of books in Physics Deaprtment:");
    String []Physics={"1- Astronomical Physics","2- Particle Physics","3- Meta Physics","4- Atomic Physics","5- Dynamics","6- Kinematics","7- Solid state Physics","7- Nuclear Physics","8- Electromagnetism","9- Astromy"};
    for (String i: Physics){

System.out.println("---------------------------------------------------------------------------");
        System.out.println(i);}
    }

    public void ChemistryDepartment(){
    System.out.println("The availability of books in Physics Deaprtment:");
        String []Chemistry={"1- Organic Chemistry","2- Inorgaic Chemiistry","3- Bio Chemistry","4- Nuclear Chemistry","5- Environmental Chemistry", "6- Polymeric Chemistry","7- Analytic Chemistry"};
    for(String i: Chemistry){
```

```
System.out.println("--------------------------------------------------------------------------");
            System.out.println(i);}
      }

      public void MathDepartment(){
            System.out.println("The availability of books in Physics Deaprtment:");
            System.out.println("");
      String []Math={"1- Basic Math", "2- Advance Math", "3- Calculus & Analytical
Geometry","4- Lineatr Algebra","5- Complex Variable"};
      for(String i: Math){

System.out.println("--------------------------------------------------------------------------");
            System.out.println(i);}
      }


      public void BioDepartment(){
            System.out.println("The availability of books in Biology Department");
            String Biology[]={"1- zoology","2- Botany","3- Molecular Biology", "4- Essential
cells Biology", "5- principles of biology"};
            for(String i: Biology){

System.out.println("--------------------------------------------------------------------------");
                  System.out.println(i);}
      }
      }
```

LIBRARY MANAGEMENT SYSTEM (MAIN CLASS):

```
package librarymanagementsystem;
import java.util.*;
public class LibraryManagementSystem {
      public static void main(String[] args) {
                        Scanner obj=new Scanner(System.in);
              Module1 obj1=new Module1();

            System.out.println("\n Enter the user's name");
            obj1.name=obj.nextLine();

            System.out.println("\n Enter the Father's name");
            obj1.fname=obj.nextLine();

            System.out.println("\n Enter User Id");
            obj1.id=obj.nextLine();

            System.out.println("\n Enter class");
```

```
            obj1.Class=obj.nextLine();

            System.out.println("\n Enter University Id");
            obj1.Unid=obj.nextLine();

            obj1.UserInfo(obj1.name, obj1.fname, obj1.Class, obj1.Unid, obj1.id);

                System.out.println();
        obj1.Display();


            int select=0;
            while(select !=5){
                System.out.println("Enter your choice for selecting the departments ");
                System.out.println("1- Physics 2- Chemistry 3-Biology
4-Mathematics 5-Exit");
                select=obj.nextInt();

                switch(select){
                    case 1:
              Module2 obj2=new Module2();
              obj2.PhysicsDepartment();
              break;
                    case 2:
                        Module2 obj3=new Module2();
                       obj3.ChemistryDepartment();
              break;
                    case 3:
                        Module2 obj4=new Module2();
                       obj4.MathDepartment();
              break;
                    case 4:
                        Module2 obj5=new Module2();
                       obj5.BioDepartment();
              break;
        }
}
}}
```