```
Student.java ×
                 Student_demo.java
                                        Book.java
                                                       Book_demo.java
                                                                            Bank_demo.java
       public class Student {
           private String Name;
           3 usages
           private int age;
           private char grade;
           static int student_count;
           public Student()
               student_count+=1;
           public void setName(String name) { this.Name=name; }
           public void setAge(int age) { this.age=age; }
           public void setGrade(char grade) { this.grade=grade; }
           public String getName() { return Name; }
           public int getage() { return age; }
           public char getGrade() { return grade; }
           public static void getStudent_count() { System.out.println(student_count); }
```

```
public static void getStudent_count() { System.out.println(student_count); }

lusage
public void display()
{
    System.out.println(Name);
    System.out.println(age);
    System.out.println(grade);
}
static {
    student_count=0;
}
```

```
public static void main(String[] args) {
    Student s=new Student();
    Student s1=new Student();
    Student s2= new Student();
    s.setName("yousuf");
    s.setAge(15);
    s.setGrade('B');
    s1.setName("Amar");
    s1.setAge(12);
    s1.setGrade('A');
    s2.setName("mamo");
    s2.setAge(13);
    s2.setGrade('c');
    System.out.println(s1.getName());
    System.out.println(s1.getage());
    System.out.println(s1.getGrade());
    s.display();
    Student.getStudent_count();
```

```
public class Book {
    2 usages
    private String author;
    2 usages
    private String title;
    private int Pub_year;
    static double latefee;
    public void setAuthor(String author) { this.author=author; }
    public void setTitle(String title) { this.title=title; }
    public void setPub_year(int pub_year)
        this.Pub_year=pub_year;
    public String getAuthor() { return author; }
    public String getTitle() { return title; }
    public int getPub_year() { return Pub_year; }
```

```
public void setlatefeerate(double latefeerate) { this.latefee=latefeerate; }
no usages
public static double getlatefeerate() { return latefee; }

static{
    latefee=0;
}
lusage
public static double calculate(int borrowed_year)
{
    int cuurent_year=2024;
    int year_late=cuurent_year-borrowed_year;
    return latefee*year_late;
}
```

```
public class Book_demo {
   public static void main(String[] args) {
      Book b1=new Book();
      b1.setAuthor("yousuf");
      b1.setTitle("politics");
      b1.setPub_year(2015);

b1.setlatefeerate(25.5);

int borrowed_year=2021;
      System.out.println(b1.getAuthor());
      System.out.println(b1.getTitle());
      System.out.println(b1.getPub_year());

      System.out.println(b1.getPub_year());

      System.out.println("late fee on the book you have borrowed"+Book.calculate(borrowed_year));
```

```
public class Bank_Account {
    private int Account_num;
    private String Account_Name;
    static double Interest;
    public void setAccount_Name(String Account_Name) { this.Account_Name=Account_Name; }
    public void setAccount_num(int Account_num) { this.Account_num=Account_num; }
    public void setBalance(double Balance) { this.Balance=Balance; }
    public String getAccount_Name() { return Account_Name; }
    public int getAccount_num() { return Account_num; }
    public double getBalance() { return Balance; }
    public void setAnnualInterest(double Interest) { this.Interest=Interest; }
    no usages
    public static double getAnnualInterest()
        return Interest;
```

```
return Interest;
}

static{
    Interest=0;
}

lusage

public double calculateInterest(double balance)
{
    return balance*Interest*1;
}
```

```
public class Bank_demo {
   public static void main(String[] args) {
        Bank_Account bi=new Bank_Account();
        Bank_Account bi=new Bank_Account();
        Bank_Account bi=new Bank_Account();
        b.setAccount_Name("yousuf");
        b.setAccount_num(50000);
        b.setAccount_Name("Awais");
        bi.setAccount_Name("Awais");
        bi.setAccount_num(545454);
        bi.setBalance(845454);

        b.setAnnualInterest(0.5);

        System.out.println("the total anual interest earned on the"+b.getBalance()+"is"+b.calculateInterest(b.getBalance()));
}
```

```
public class Employee {
   private int employee_id;
   private String name;
   private String position;
   private double salary;
   public Employee(int employee_id,String name,String position,double salary)
        this.employee_id=employee_id;
        this.name=name;
       this.position=position;
       this.salary=salary;
   public void setName(String name){
       this.name=name;
   public void setEmployee_id(int employee_id)
        this.employee_id=employee_id;
```

```
2 usages
public String getPosition()
    return position;
public double getSalary()
    return salary;
public int getEmployee_id()
     return employee_id;
public static Employee promoteEmployee(Employee employee, String new_positon)
            employee.setPosition(new_positon);
    return employee;
public static Employee calculate_bonus(Employee employee, double bonus)
     bonus = employee.getSalary()*(bonus/100);
    double newsalary=employee.getSalary()+bonus;
    employee.setSalary(newsalary);
    return employee;
```

```
public class Employee_demo {
    public static void main(String[] args) {

        Employee e = new Employee( employee_id: 10001, name: "yousuf", position: "clerk", salary: 500);
        System.out.println("EMPLOYEE INFORMATION");
        System.out.println("id:"+e.getEmployee_id());
        System.out.println("name:"+e.getName());
        System.out.println("salary:"+e.getSalary());
        System.out.println("position:"+e.getPosition());

        Employee.promoteEmployee(e, new_positon: "manager");
        Employee.calculate_bonus(e, bonus: 1000);

        System.out.println("new position is "+e.getPosition());
        System.out.println("new salary is "+e.getSalary());
```

```
public class Course {
    private String course_code;
    private String title;
    private String instructor;
    private int duration;
    public Course(String course_code, String title, String instructor, int duration) {
        this.course_code = course_code;
        this.title = title;
        this.instructor = instructor;
        this.duration = duration;
    no usages
    public void setCourse_code(String course_code)
        this.course_code=course_code;
    public void setTitle(String title)
        this.title=title;
    public void setInstructor(String instructor)
        this.instructor=instructor;
```

```
public void setDuration(int duration)
    this.duration=duration;
public String getCourse_code()
    return course_code;
public String getTitle()
    return title;
public String getInstructor()
    return instructor;
public int getDuration()
     return duration;
public void enrollStudent(Student student)
    System.out.println("enrolled student"+student.getName());
```

```
public static class Student {
   private String S_id;
   private String Name;
   private double progress;
   public Student(String S_id,String name,double progress)
      this.Name=name;
       this.S_id=S_id;
       this.progress=progress;
   public void setName(String name)
       this.Name=name;
   public void setS_id(String s_id)
       this.S_id=s_id;
   public void setProgress(double progress)
       this.progress=progress;
```

```
1 usage
public void setProgress(double progress)
    this.progress=progress;
2 usages
public String getName()
    return Name;
no usages
public String getS_id()
    return S_id;
1 usage
public double getProgress()
    return progress;
```



```
public class Course_demo {
   public static void main(String[] args) {
      Course c=new Course( course_code: "c1544", title: "java", instructor: "mam Irum", duration: 45);
      Course.Student s= new Course.Student ( S_id: "023", name: "Amar", progress: 2.0);
      c.enrollStudent(s);
      c.trackprogress(s, progress: 5.6);
}
```