Lab 01

```java
public class Student {
    private int studentId;
    private String studentName;
    private int studentAge;

              public Student(int studentId, String studentName, int studentAge) {

            this.studentId = studentId;
            this.studentName = studentName;
            this.studentAge = studentAge;
    }
    public int getStudentId() {
            return studentId;
    }
    public void setStudentId(int studentId) {
            this.studentId = studentId;
    }
    public String getStudentName() {
            return studentName;
    }
    public void setStudentName(String studentName) {
            this.studentName = studentName;
    }
    public int getStudentAge() {
            return studentAge;
    }
    public void setStudentAge(int studentAge) {
            this.studentAge = studentAge;
    }

}
```

```
public class Section {
    private Student arrayStu[];
    private int counter;

    public Section(int size)
    {
            arrayStu=new Student[size];
            counter=0;
    }
    public boolean addStudent(Student stu)
    {
            if(counter < arrayStu.length)
                    {
                    arrayStu[counter] = stu;
                    counter++;
                    return true;
                    }
            else
                    return false;
    }



    public int search(int id)
    {
            for(int i=0;i<counter;i++)
                    if(id==arrayStu[i].getStudentId())
                            return i;
     return -1;

            }



    boolean deleteStu(int id)
    {
            int index=search(id);
            if(index==-1)
                    return false;
            else
            {
                    arrayStu[index]=arrayStu[counter-1];
                    arrayStu[counter-1]=null;
                    counter--;
                    return true;
            }


    }


    public int findMaxAge()
    {
            int max =arrayStu[0].getStudentAge() ;
            for(int i=1; i<counter; i++)
                    if(arrayStu[i].getStudentAge()>max)
                            max = arrayStu[i].getStudentAge();
```

```
        return max;
}




public int findMinAge()
{
        int min =arrayStu[0].getStudentAge() ;
        for(int i=1; i<counter; i++)
                if(arrayStu[i].getStudentAge()<min)
                        min = arrayStu[i].getStudentAge();
        return min;
}



public double calculateTotalAges()
{
        double sum = 0.0;
        for(int i=0; i<counter; i++)
                sum += arrayStu[i].getStudentAge();
        return sum;
}

public double calculateAvgAge()
{
        if (counter==0)
                return 0.0;
        else
                return calculateTotalAges()/counter;

}


public void printStuData(int id)
{
        int index=search(id);
        if(index==-1)
                System.out.println("Student not Found");
        else
        {
                System.out.println("Id= "+arrayStu[index].getStudentId());
                System.out.println("Name= "+arrayStu[index].getStudentName());
                System.out.println("Age= "+arrayStu[index].getStudentAge());

        }

}

}
```

```java
public class TestSection {


    public static void main(String[] args) {
            // TODO Auto-generated method stub
            Section sec=new Section(10);
            Student st1=new Student(101,"Aaa",21);
            Student st2=new Student(102,"Bbb",19);
            Student st3=new Student(103,"Ccc",22);
            Student st4=new Student(104,"Ddd",24);
            Student st5=new Student(105,"Eee",18);

            System.out.println(sec.addStudent(st1));
            System.out.println(sec.addStudent(st2));
            System.out.println(sec.addStudent(st3));
            System.out.println(sec.addStudent(st4));
            System.out.println(sec.addStudent(st5));

            System.out.println(sec.search(109));

            System.out.println(sec.findMaxAge());
            System.out.println(sec.findMinAge());

            sec.printStuData(109);
            if(sec.deleteStu(103)==true)
                    System.out.println("student deleted");
            else
                    System.out.println("not found");


    }

}
```