

```
//M gayathri-185001050
/*1.Write a java program to check whether the given number is
odd or even.
*/
class A1
{
    public static void main(String args[])
    {
        int a=10;
        if(a%2==0)
        {
            System.out.println(a+" is even ");
        }
        else
            System.out.println(a+" is odd ");
    }
}
```

/*Sample input/output

```
cs1050@u6:~/Desktop/gayu-java$ javac A1.java
cs1050@u6:~/Desktop/gayu-java$ java A1
10 is even
*/
```

```
/*
2.Write a java program to find the factorial of the given
number.
*/
class A2
{
    public static void main(String args[])
    {
        int a=Integer.parseInt(args[0]);
        for(int i=a-1;i>=1;i--)
        {
            a=a*i;
        }
        System.out.println("the factorial is " +a);
    }
}
```

/*
Sample input/output

```
cs1050@u6:~/Desktop/gayu-java$ javac A2.java
cs1050@u6:~/Desktop/gayu-java$ java A2 5
the factorial is 120
*/
```

```
/*
3. Write a java program to find the sum of first natural
numbers.
```

```
*/class A3
{
    public static void main(String args[])
    {
        int n=Integer.parseInt(args[0]);
        for(int i=n-1;i>=1;i--)
        {
            n=n+i;
        }
        System.out.println("the sum is " +n);
    }
}
```

```
/* Sample input/output
cs1050@u6:~/Desktop/gayu-java$ javac A3.java
cs1050@u6:~/Desktop/gayu-java$ java A3 5
the sum is 15
*/
```

```
/*
4. Write a java program to find whether the given number is
Armstrong number or no
```

```
*/
class A4
{
    public static void main(String args[])
    {
        int n=Integer.parseInt(args[0]),s=0,r,arm;
        arm=n;
        while(n!=0)
        {
            r=n%10;
            n=n/10;
            s=s+r*r*r;
        }
        if(s==arm)
            System.out.println(" given number is an armsrong
number");
        else
```

```

        System.out.println("given number is not an armstrong
number");
    }
}
/*
Sample input/output
cs1050@u6:~/Desktop/gayu-java$ javac A4.java
cs1050@u6:~/Desktop/gayu-java$ java A4 371
given number is an armsrong number
cs1050@u6:~/Desktop/gayu-java$ java A4 372
given number is not an armstrong number
*/

```

```

/*
5.
Write a java program to create a class named with name, id,
dept, 3 marks as data members. Write function to assign the
inputs, calculate grade, display and search.
*/
import java.util.Scanner;
import java.lang.*;
class Compute
{
private String name,dept;
private int id=0;
private int []marks=new int[3];
void assign()
{
    System.out.println("enter details of student
name,department,id,marks");
    Scanner in=new Scanner(System.in);
    name=in.nextLine();
    dept=in.nextLine();
    id=in.nextInt();
    for(int i=0;i<3;i++)
    {
        marks[i]=in.nextInt();
    }
    return;
}
void grade()
{
    int avg,s=0;
    for(int i=0;i<3;i++)
        s=s+marks[i];
    avg=s/3;
}
}

```

```

System.out.println("Average:"+avg);
if(avg>90)
    System.out.println("grade is o");
else if(avg>80)
    System.out.println("grade is a+");
else if(avg>70)
    System.out.println("grade is a");
else if(avg>60)
    System.out.println("grade is b+");
else if(avg>50)
    System.out.println("grade is b");
else if(avg>40)
    System.out.println("grade is c");
else
    System.out.println("Fail");
return;
}
void search(int n)
{
    if(n==id)
        System.out.println("the student is present");
    else
        System.out.println("the student is not present");
}
void search(String d)
{
    if(dept.compareTo(d)==0)
        System.out.println("the student is present");
    else
        System.out.println("the student is absent");
}
}
class Student
{
    public static void main(String argv[])
    {
        int ch;
        Compute c=new Compute();
        c.assign();
        c.grade();
        Scanner in=new Scanner(System.in);
        System.out.println("enter choice 1.search by department
2.search by id");
        ch=in.nextInt();
        if(ch==1)
        {
            String temp=in.nextLine();

```

```

        System.out.println("enter dept to search");
        String d=in.nextLine();
        c.search(d);
    }
    else
    {
        System.out.println("enter id no to search a student");
        int i=in.nextInt();
        c.search(i);
    }
}
}

```

```

/*Sample input/output
cs1058@u6:~/Desktop/gayu-java$ javac Student.java
cs1058@u6:~/Desktop/gayu-java$ java Student
enter details of student name,department,id,marks
gayu
cse
1
99
99
99
Average:99
grade is o
enter choice 1.search by department 2.search by id
1
enter dept to search
cse
the student is present
cs1058@u6:~/Desktop/gayu-java$ java Student
enter details of student name,department,id,marks
gayu
cse
1
99
99
99
Average:99
grade is o
enter choice 1.search by department 2.search by id
2
enter id no to search a student
2
the student is not present

```

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