```
//S Harshini-185001058
/*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

cs1058@u6:~/Desktop/harsh-java$ javac A1.java
cs1058@u6:~/Desktop/harsh-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
cs1058@u6:~/Desktop/harsh-java$ javac A2.java
cs1058@u6:~/Desktop/harsh-java$ java A2 5
the factorial is 120
*/

/*
3.Write a java program to find the sum of first ‘n’ 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
cs1058@u6:~/Desktop/harsh-java$ javac A3.java
cs1058@u6:~/Desktop/harsh-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
cs1058@u6:~/Desktop/harsh-java$ javac A4.java
cs1058@u6:~/Desktop/harsh-java$ java A4 371
 given number is an armsrong number
cs1058@u6:~/Desktop/harsh-java$ java A4 372
given number is not an armstrong number
*/


/*
5.
Write a java program to create a class named ‘Student’ 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/harsh-java$ javac Student.java
cs1058@u6:~/Desktop/harsh-java$ java Student
enter details of student name,department,id,marks
harsh
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/harsh-java$ java Student
enter details of student name,department,id,marks
harsh
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
*/
```