1. Write a java program to check whether given number is Armstrong number or not

```
package sravs.com;
import java.util.*;

  public class armnum1 {
    public static void main(String[] args) {
          // TODO Auto-generated method stub

          Scanner obj = new Scanner(System.in);
          int num, sum=0, r, num1,num2, count=0;
   System.out.println("Enter your number to Check for
   Armstrong");
                num = obj.nextInt();
     num2=num1 =num;
                    while(num1>0)
                    {
                    num1=num1/10;
                    count++;
                    }
                    while(num>0)
                    {
                    r=num%10;
                    int multiply = 1;
          for(int j=1;j<=count;j++)
     multiply = multiply * r;
                    sum = sum + multiply ;
                    num=num/10;
                    }
                System.out.println("sum="+sum);
     if(sum==num2)
    System.out.println("Given number is armstrong");
                    else
    System.out.println("Given number is not armstrong");
                }


   }
```

Output:

Enter your number to Check for Armstrong

90 sum=81

Given

number is

not

armstrong

2. Write a Program to display all the Armstrong number between 10 to 1000

```
package sravs.com; import
java.util.*; public class
Allarmstrongnum {
  public static void main(String[] args) {
          // TODO Auto-generated method stub

    Scanner sc = new Scanner(System.in);  int
   i, num, r, sum, count=0, multiply;
   for(i=10;i<=100000;i++)
    {
    sum=0;  num=i;  count=0;
   while(num>0) // counting of digits
    {
    num=num/10;
    count++;
    }
      num=i;
      while(num>0)
    {      r=num%10;
      multiply=1;     for(int
j=1;j<=count;j++)
    multiply = multiply * r;
   sum=sum+(multiply);
    num/=10;
      }
      if(sum==i)
    System.out.println(i);

      }
```

```
}
```

Output:

153

370

371

407

1634

8208

9474

54748

92727

93084

3. Write a program to find sum of the following series

b. 1!+2!+3!+…..n!

```
package sravs.com; import
java.util.Scanner;

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

        System.out.print("Enter the value of n: ");
int n = scanner.nextInt();

        int sum = 0;

        for (int i = 1; i <= n; i++) {
int factorial = 1;
```

```
            for (int j = 1; j <= i; j++) {
factorial *= j;
            }

            sum += factorial;
        }

        System.out.println("Sum of the series: " + sum);

        scanner.close();
    } }
```

Output:

Enter the value of n: 9

Sum of the series: 409113

4. Write a java program to check given number is perfect number or not

```
package sravs.com; import
java.util.Scanner; public
class perfectnumornot {
     public static void main(String[] args) {
          // TODO Auto-generated method stub

               Scanner obj = new Scanner(System.in);
           long num,i,sum=0;
               System.out.println("Enter n value");
               num=obj.nextInt();
               for(i=1;i<num;i++)
               {
                if(num%i==0)

                     System.out.println("sum="+sum);
           if(sum==num)
                          System.out.println(num+"perfect
number");
                     else;
                     System.out.println(num+" not a perfect
number");


                }
```

```
                }

        }
```

Output:

Enter the number

141

It is a perfect number

5. Display all perfect numbers between 1 to 100000 `package`

```
sravs.com;

 import java.util.*;
 public class Perfectnum {

      public static void main(String[] args) {

       Scanner obj = new Scanner(System.in);
int i,j,num,sum;        for(i=1;i<=100000;i++)
       {
num=i;
sum=0;
        for(j=1;j<num;j++)
        {
              if(num%j==0)
                    sum=sum+j;
        }
        if(sum==num)
              System.out.println(i);
       }
      }
```

Output:

6

28

496

8128

6. Write a program to extract only character from a string. Eg: Af02284khff -> Afkhff

```
package sravs.com; import
java.util.Scanner; public
class Digits {


public static void main(String[] args) {


   String text, digits = "", string = "", symbols = "";
              char ch;
                   int i;
Scanner key = new Scanner(System.in);
System.out.println("Enter your text: ");
text = key.nextLine(); // Use nextLine() instead of nextInt()
to read the entire line
   System.out.println("Length of the string: " +
   text.length());
   for (i = 0; i < text.length(); i++) {
   ch = text.charAt(i);
       if (ch >= '0' && ch <= '9') {
            digits += ch;
    else if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <=
   'Z')) {                              string +=
ch;                    } else if (ch != ' ') {
                           symbols += ch;
                       }
                   }
    System.out.println("Extracted digits: " + digits);
    System.out.println("Extracted string: " + string);
    System.out.println("Extracted symbols: " + symbols);
               }
          }
```

Output:

```
Enter your text:
sravs2123@*&
   Length of the string: 12
   Extracted digits: 2123
   Extracted string: sravs
   Extracted symbols: @*&
```

7. Write a program to find reverse of digits

```
package sravs.com; import
java.util.Scanner; public class
ReverseofDigitsnum {
  public static void main(String[] args) {
   // TODO Auto-generated method stub
   Scanner obj = new Scanner(System.in);
int num, num1, r, reverse=0;
          System.out.println("Enter your number to Check for
Armstrong");      num =
obj.nextInt();    num1=num;
          while(num>0)
          {
          r=num%10;
   reverse= (reverse*10) +r;      System.out.print(r);
          num/=10;
          }
   System.out.println("reverse of the digits"+ reverse);
          if(reverse==num1)
          System.out.println("Palindrome");
          else
          System.out.println("Not a Palindrome");
          }

 }
```

Output:

Enter your number to Check for Armstrong

1537

7351reverse of the digits7351

Not a Palindrome

8. Write a program to find power value of given base and exponent number

```
package sravs.com; import
java.util.Scanner;

public class PowerValue {
  public static void main(String[] args) {
 // TODO Auto-generated method stub

          Scanner scanner = new Scanner(System.in);
```

```
            System.out.print("Enter the base number: ");
            double base = scanner.nextDouble();

        System.out.print("Enter the exponent number:");
    int exponent = scanner.nextInt();

            double power = calculatePower(base, exponent);

                System.out.println("Power value: " + power);
            scanner.close();
             }

        public static double calculatePower(double base, int
    exponent) {
                    double result = 1;

                    if (exponent >= 0) {
                        for (int i = 1; i <= exponent; i++) {
                            result *= base;
                    }
    } else {
                   for (int i = 1; i <= -exponent; i++) {
    result /= base;
                        }
                     }

                    return result;
                }

     }
```

Output:

```
Enter the base number: 6
Enter the exponent number: 8
Power value: 1679616.0
```

9. Write a program to convert every first letter of string to capital letter

a. eg: the Hindu -> The Hindu

```
package sravs.com;
```

```
public class Uppercase {
     public static void main(String[] args) {
          // TODO Auto-generated method stub

                    String txt = "the Hindu";
                    int h = 0;
                    boolean capitalize = true;
          StringBuilder sb = new StringBuilder(txt);
          while (h < sb.length()) {
               if (sb.charAt(h) == ' ') {
                    capitalize = true;
          }
          else if (capitalize &&
!Character.isWhitespace(sb.charAt(h)))
          {
          sb.setCharAt(h,
Character.toUpperCase(sb.charAt(h))); capitalize = false;}
h++;
          }
          System.out.println(sb.toString());
          }

     }
```

Output:

The Hindu

10.Write a program to count no. of digits present in a string

```
package sravs.com;

public class CountingofDigitss {
     public static void main(String[] args) {
          // TODO Auto-generated method stub
        String input = "abcd123456gd9876";
int digitCount = countDigits(input);

         System.out.println("Number of digits: " + digitCount);
    }
    public static int countDigits(String input) {
int digitCount = 0;

         for (int i = 0; i < input.length(); i++) {
char ch = input.charAt(i);
```

```
            if (Character.isDigit(ch)) {
digitCount++;
            }
        }
        return digitCount;
    }
}
```

Output:

```
Number of digits: 10
```