**Problem – 1**

Write a program to check whether a number is a Strong number or not. Strong number is a special number whose sum of factorial of digits is equal to the original number. For example: 145 is a strong number. Since, 1! + 4! + 5! = 145.

Code:

import java.util.\*;

public class StrongEx {

// Method to calculate the factorial of a digit

public static int factorial(int digit) {

int fact = 1;

for (int i = 1; i <= digit; i++) {

fact \*= i ;

}

return fact;

}

public static void main(String[] args) {

// Input number from the user

System.***out***.print("Enter the number to check for Strong no.:");

Scanner sc = new Scanner(System.***in***);

int num = sc.nextInt();

int sum = 0;

int temp = num;

// Calculate the sum of factorials of each digit

while (temp > 0) {

int digit = temp % 10;

sum += *factorial*(digit);

temp /= 10;

}

// Check if the sum of factorials is equal to the num

if (sum == num) {

System.***out***.print(num + " is a Strong number.");

} else {

System.***out***.print(num + " is not a Strong number.");

}

}

}

**Output:**

Enter the number to check for Strong no.:40585

40585 is a Strong number.

**Problem-2**

Write a program to check leap year using if else. How to check whether a given year is a leap year or not.

Code:

import java.util.\*;

public class Leap {

public static void main(String[] args) {

// Create a Scanner object to read input from the user

Scanner sc = new Scanner(System.***in***);

System.***out***.print("Enter a year: ");

int year = sc.nextInt();

// Check if the year is a leap year using if-else conditions

if (year % 4 == 0 && year % 100 != 0) {

// If the year is divisible by 4 and not divisible by 100, it's a leap year

System.***out***.println(year + " is a leap year.");

} else if (year % 400 == 0) {

// If the year is divisible by 400, it's also a leap year

System.***out***.println(year + " is a leap year.");

} else {

// Otherwise, it's not a leap year

System.***out***.println(year + " is not a leap year.");

}

}

}

**Output:**

Enter a year: 4024

4024 is a leap year.