Day 22 coding Statement : Write a program to express a number as a sum of two prime numbers

Description : Get a number as input from the user and express that number as sum of two prime numbers.

Input : 4

Output : 4 can be expressed as sum of 2 and 2.

Program :

```java
package com.talentbattle.codingchallenge;

import java.util.Scanner;

public class Sum_of_Prime {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner scan = new Scanner(System.in);
        System.out.println("Enter a Number ");
        int number = scan.nextInt();
        boolean x = false;

        for(int i = 2;i <= number/2;++i)
        {
            if(prime(i))
            {
                if(prime(number-i))
                {
                    System.out.println(number + " can be expressed as "
+ i + " and " + (number-i));
                    x=true;
                }
            }
        }
        if(x == false)
            System.out.println("Can't be expressed");

    }

    private static boolean prime(int n) {
        // TODO Auto-generated method stub
        boolean c =true;
        for(int i =2;i<=n/2;++i)
        {
            if(n % i == 0)
            {
                c =false;
                break;
            }
        }
        return c;
    }
}
```

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> Sudeep
  > JRE System Library [jdk-19]
  > src
    > (default package)
    > com.kodnest.programs
    > com.talentbattle.codingchallenge
      > alphabet_or_not.java
      > Armstrong.java
      > ascii_output.java
      > day1_vowel_consonant.java
      > days_in_a_month.java
      > factor.java
      > factorial.java
      > fraction.java
      > Number_of_digits.java
      > odd_or_even.java
      > package-info.java
      > Palindrome.java
      > Perfect_Number.java
      > positive_or_negative.java
      > practice_statement.java
      > Prime.java
      > quadrant.java
      > Qudratic_equation.java
      > roots.java
      > Strong_number.java
      > Sum_of_Prime.java

```java
7    public static void main(String[] args) {
8        // TODO Auto-generated method stub
9        Scanner scan = new Scanner(System.in);
10       System.out.println("Enter a Number ");
11       int number = scan.nextInt();
12       boolean x = false;
13
14       for(int i = 2;i <= number/2;++i)
15       {
16           if(prime(i))
17           {
18               if(prime(number-i))
19               {
20                   System.out.println(number + " can be expressed as " + i + " a
21                   x=true;
22               }
23           }
24       }
25       if(x == false)
26           System.out.println("Can't be expressed");
27
28   }
29
30   private static boolean prime(int n) {
31       // TODO Auto-generated method stub
32       boolean c =true;
33       for(int i =2;i<=n/2;++i)
34       {
35           if(n % i == 0)
36           {
37               c =false;
38               break;
39           }
40       }
41       return c;
42   }
43
44 }
45
```

Console:
```
<terminated> Sum_of_Prime [Java Application] C:\Program Files\Jav
Enter a Number
4
4 can be expressed as 2 and 2
```

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