Day 18 coding Statement : Write a program to Add two fractions

Description : Get the values for numerator and denominator of two fractions, then add that fractions.

Consider the following format

x3/y3 = (x1/y1) + (x2/y2)

here x3 = (x1*y2) + (x2*y1) and y3 = (y1*y2)

Input : 2 3

      4 3

Output : 2/1

```java
package com.talentbattle.codingchallenge;
import java.util.Scanner;
public class fraction {
        public static void main(String[] args) {
                // TODO Auto-generated method stub
                Scanner scan = new Scanner(System.in);
                System.out.println("Enter the Numerator : ");
                int x1 = scan.nextInt();
                int y1 = scan.nextInt();

                System.out.println("Enter the Denominator");
                int x2 = scan.nextInt();
                int y2 = scan.nextInt();

                int x3,y3;

                x3 = (x1*y2) + (x2*y1);
                y3 = (y1*y2);
                int common_factor = gcd(x3,y3);

                x3=x3/common_factor;
                y3=y3/common_factor;

                System.out.print("Add of two fractions is : " + x3+"/"+y3);
        }

        private static int gcd(int x3, int y3) {
                // TODO Auto-generated method stub
                if(x3==0) {
                        return y3;
                }
                return gcd(y3%x3,x3);
        }

}
```

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Project Explorer

- Sudeep
  - JRE System Library [jdk-19]
  - src
    - (default package)
    - com.kodnest.programs
    - com.talentbattle.codingchallenge
      - alphabet_or_not.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
      - Perfect_Number.java
      - positive_or_negative.java
      - practice_statement.java
      - quadrant.java
      - Qudratic_equation.java
      - roots.java
      - Strong_number.java

```java
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import java.util.Scanner;

public class fraction {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner scan = new Scanner(System.in);
        System.out.println("Enter the Numerator : ");
        int x1 = scan.nextInt();
        int y1 = scan.nextInt();

        System.out.println("Enter the Denominator");
        int x2 = scan.nextInt();
        int y2 = scan.nextInt();

        int x3,y3;

        x3 = (x1*y2) + (x2*y1);
        y3 = (y1*y2);
        int common_factor = gcd(x3,y3);

        x3=x3/common_factor;
        y3=y3/common_factor;

        System.out.print("Add of two fractions is : " + x3+"/"+y3);
    }

    private static int gcd(int x3, int y3) {
        // TODO Auto-generated method stub
        if(x3==0) {
            return y3;
        }
        return gcd(y3%x3,x3);
    }
}
```

Console

<terminated> fraction [Java Application] C:\Program Files\Java\jdk-

```
Enter the Numerator :
2
3
Enter the Denominator
4
3
Add of two fractions is : 2/1
```

Type here to search

22°C Mostly clear

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12/3/2022