Qbrik-internship

task 1- 16/05/2024

1. Print the fibonacci series till the given number n

```
import java.util.Scanner;
public class Fibonacci {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the number of Fibonacci terms
to print: ");
        int n = scanner.nextInt();
        scanner.close();
        printFibonacci(n);
    }
    public static void printFibonacci(int n) {
        int a = 0, b = 1;
        System.out.println("Fibonacci Series up to " + n + "
terms:");
        for (int i = 1; i <= n; i++) {
            System.out.print(a + " ");
            int sum = a + b;
            a = b;
            b = sum;
        }
   }
}
```

Output:

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Users\Deepthi\IntelliJ IDEA Community Edition 2023.2.5\lib\idea_rt.jar=56046:C:\Users\Deepthi\IntelliJ IDEA Community Enter the number of Fibonacci terms to print: 12
Fibonacci Series up to 12 terms:
0 1 1 2 3 5 8 13 21 34 55 89
Process finished with exit code 0
```

2. Print the reverse triangle for the given dimension.

1. Print the reverse triangle for the given height.

```
import java.util.Scanner;
public class reversetriangle {
    public static void printReverseTriangle(int height) {
        for (int i = height; i > 0; i--) {
            for (int j = 0; j < height - i; j++) {
                System.out.print(" ");
            }
            for (int k = 0; k < i; k++) {
                System.out.print("*");
            System.out.println();
        }
    }
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the height of the triangle:
");
        int height = scanner.nextInt();
        scanner.close();
```

```
printReverseTriangle(height);
}
```

```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Users\Deepthi\IntelliJ IDEA Community Edition 2023.2.5\lib\idea_rt.jar=59418:C:\Users\Deepthi\IntelliJ IDEA Community Enter the height of the triangle: 8
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```

3. Print whether the given year is leap year or not.

```
import java.util.Scanner;
public class LeapYear {
    public static boolean isLeapYear(int year) {
        return (year % 4 == 0 && year % 100 != 0) || (year %
400 == 0);
    }
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter year: ");
        int year = scanner.nextInt();
        scanner.close();
        if (isLeapYear(year)) {
            System.out.println(year + " is a leap year.");
        } else {
            System.out.println(year + " is not a leap yea
r.");
        }
    }
}
```

"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Users\Deepthi\IntelliJ IDEA Community Edition 2023.2.5\lib\idea_rt.jar=56077:C:\Users\Deepthi\IntelliJ IDEA Community Enter year: 2013
2013 is not a leap year.

Process finished with exit code 0

"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Users\Deepthi\IntelliJ IDEA Community Edition 2023.2.5\lib\idea_rt.jar=56072:C:\Users\Deepthi\IntelliJ IDEA Community Enter year: 2024
2024 is a leap year.

Process finished with exit code 0