Arie Farchan Fyrzatullah

103032330094

IT-47-05

TP Modul 02

1. Buatlah program Java yang menerima sebuah inputan integer $n > 0$, dan meng-outputkan bilangan Fibonacci sampai suku ke-n:

Input	Output
Masukkan n: **6**	1 1 2 3 5 8
Masukkan n: **11**	1 1 2 3 5 8 13 21 34 55 89

```
package com.mycompany.tp2;
import java.util.Scanner;

public class Fibonacci {
    public static void main(String[] args) {
        int n, a, b;
        Scanner input = new Scanner(System.in);
        System.out.print("Masukkan n: ");
        n = input.nextInt();

        a = 1;
        b = 1;

        System.out.print(a + " " + b);

        for (int i = 3; i <= n; i++) {
            int c = a + b;
            System.out.print(" " + c);
            a = b;
            b = c;
        }

        input.close();
    }
}
```

Output :

```
Masukkan n: 6
1 1 2 3 5 8
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  17.735 s
Finished at: 2025-09-21T18:28:33+07:00
------------------------------------------------------------------------
```

```
--- exec:3.1.0:exec (default-cli) @ TP2 ---
Masukkan n: 11
1 1 2 3 5 8 13 21 34 55 89
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  13.095 s
Finished at: 2025-09-21T18:29:51+07:00
------------------------------------------------------------------------
```

2. Buatlah program Java yang membuat 2 matrix $n \times n$ dengan n sebagai inputan. Isi tiap nilai matriks (boleh hardcode atau inputan), lalu outputkan 2 matriks tersebut dan matriks hasil perkalian antara 2 matrix tersebut.

Input	Output
Perkalian matriks n×n n: **2** Isi matriks 1: **3 -2** **4 5** Isi matriks 2: **5 1** **-1 2**	Hasil perkalian: 17 -1 15 14

```
import java.util.Scanner;

public class Matriks {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.print("Masukkan ukuran n: ");
        int n = input.nextInt();

        int[][] A = new int[n][n];
        int[][] B = new int[n][n];
        int[][] C = new int[n][n];

        System.out.println("Isi matriks 1:");
        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                A[i][j] = input.nextInt();
            }
        }

        System.out.println("Isi matriks 2:");
        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                B[i][j] = input.nextInt();
            }
        }

        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                C[i][j] = 0;
                for (int k = 0; k < n; k++) {
                    C[i][j] += A[i][k] * B[k][j];
                }
            }
```

```
        }

        System.out.println("Hasil perkalian:");
        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                System.out.print(C[i][j] + " ");
            }
            System.out.println();
        }

        input.close();
    }
}
```

Output

```
--- exec:3.1.0:exec (default-cli) @ TP2 ---
Masukkan ukuran n: 2
Isi matriks 1:
3 -2
4 5
Isi matriks 2:
5 1
-1 2
Hasil perkalian:
17 -1
15 14
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  42.319 s
Finished at: 2025-09-21T18:31:37+07:00
------------------------------------------------------------------------
```