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TP MOD 2 PBO

1. Fibbonaci

Tpmod2.java

```java
import java.util.Scanner;
/**
 *
 * @author valdez
 */
public class Tpmod2 {

    public static void main(String[] args) {
        int n;
        Scanner input = new Scanner(System.in);
         do {
            System.out.print("Masukkan n : ");
            n = input.nextInt();
        } while (n <= 0);  // Looping sampai input valid (n > 0)
        int a = 1,b =1;
        for (int i = 1; i<=n;i++){
            System.out.print(a+" ");
            int temp = a + b;
            a = b;
            b = temp;
        }

    }
}
```

Hasil Eksekusi :

```
--- exec:3.1.0:exec (default-cli) @ tpmod2 ---
Masukkan n : 0
Masukkan n : 0
Masukkan n : 6
1 1 2 3 5 8

--- exec:3.1.0:exec (default-cli) @ tpmod2 ---
Masukkan n : 11
1 1 2 3 5 8 13 21 34 55 89
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  5.982 s
Finished at: 2024-09-22T22:22:24+07:00
------------------------------------------------------------------------
```

2. Perkalian Matriks

```java
package valdez.tpmod2;
import java.util.Scanner;
/**
 *
 * @author valdez
 */
public class Tpmod2 {

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


        int[][] matrix1 = new int[n][n];
        int[][] matrix2 = new int[n][n];
        int[][] hasil = new int[n][n];


        System.out.println("Matriks 1: ");
        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                System.out.print("Matriks 1[" + i + "][" + j + "] = ");
                matrix1[i][j] = input.nextInt();
            }
        }

        System.out.println("Matriks 2: ");
        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                System.out.print("Matriks 2[" + i + "][" + j + "] = ");
                matrix2[i][j] = input.nextInt();
            }
        }

        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                hasil[i][j] = 0;
                for (int k = 0; k < n; k++) {
                    hasil[i][j] += matrix1[i][k] * matrix2[k][j];
                }
            }
        }

        // Menampilkan matriks pertama
        System.out.println("\nMatriks pertama:");
        printMatrix(matrix1, n);

        // Menampilkan matriks kedua
        System.out.println("\nMatriks kedua:");
        printMatrix(matrix2, n);

        // Menampilkan matriks hasil perkalian
        System.out.println("\nHasil perkalian matriks:");
        printMatrix(hasil, n);
    }
    public static void printMatrix(int[][] matrix, int n) {
        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                System.out.print(matrix[i][j] + " ");
            }
            System.out.println();
        }
    }


}
```

Hasil Eksekusi :

```
--- compiler:3.11.0:compile (default-compile) @ tpmod2 ---
Changes detected - recompiling the module! :source
Compiling 1 source file with javac [debug target 22] to target\classes

--- exec:3.1.0:exec (default-cli) @ tpmod2 ---
Perkalian Matriks n x n
n: 2
Matriks 1:
Matriks 1[0][0] = 3
Matriks 1[0][1] = -2
Matriks 1[1][0] = 4
Matriks 1[1][1] = 5
Matriks 2:
Matriks 2[0][0] = 5
Matriks 2[0][1] = 1
Matriks 2[1][0] = -1
Matriks 2[1][1] = 2

Matriks pertama:
3 -2
4 5

Matriks kedua:
5 1
-1 2

Hasil perkalian matriks:
17 -1
15 14
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  39.195 s
Finished at: 2024-09-22T22:59:36+07:00
```