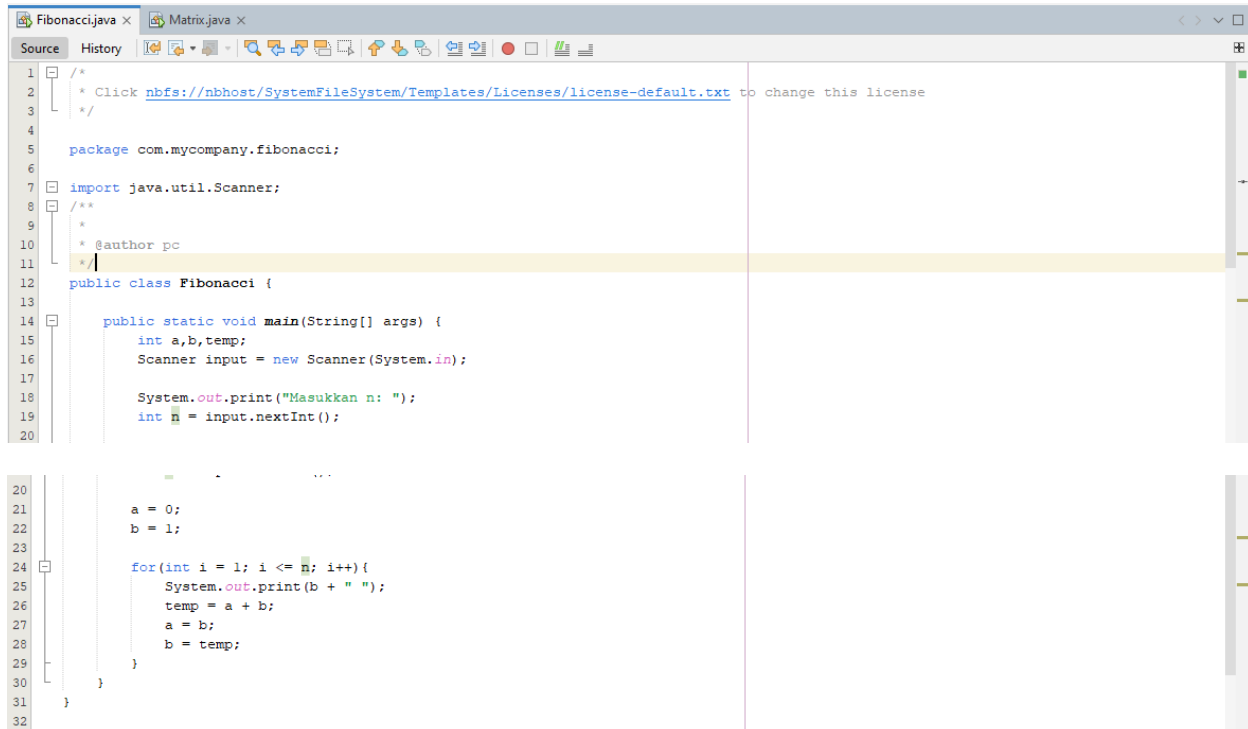Tugas Pendahuluan Modul 2

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1.   Fibonacci

Source code:

```java
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 */

package com.mycompany.fibonacci;

import java.util.Scanner;
/**
 *
 * @author pc
 */
public class Fibonacci {

    public static void main(String[] args) {
        int a,b,temp;
        Scanner input = new Scanner(System.in);

        System.out.print("Masukkan n: ");
        int n = input.nextInt();

        a = 0;
        b = 1;

        for(int i = 1; i <= n; i++){
            System.out.print(b + " ");
            temp = a + b;
            a = b;
            b = temp;
        }
    }
}
```

Output:

```
Masukkan n: 6
1 1 2 3 5 8
--------------------------------------------------------------------------
BUILD SUCCESS
--------------------------------------------------------------------------
Total time:  01:48 min
Finished at: 2024-09-21T15:35:26+07:00
--------------------------------------------------------------------------
```
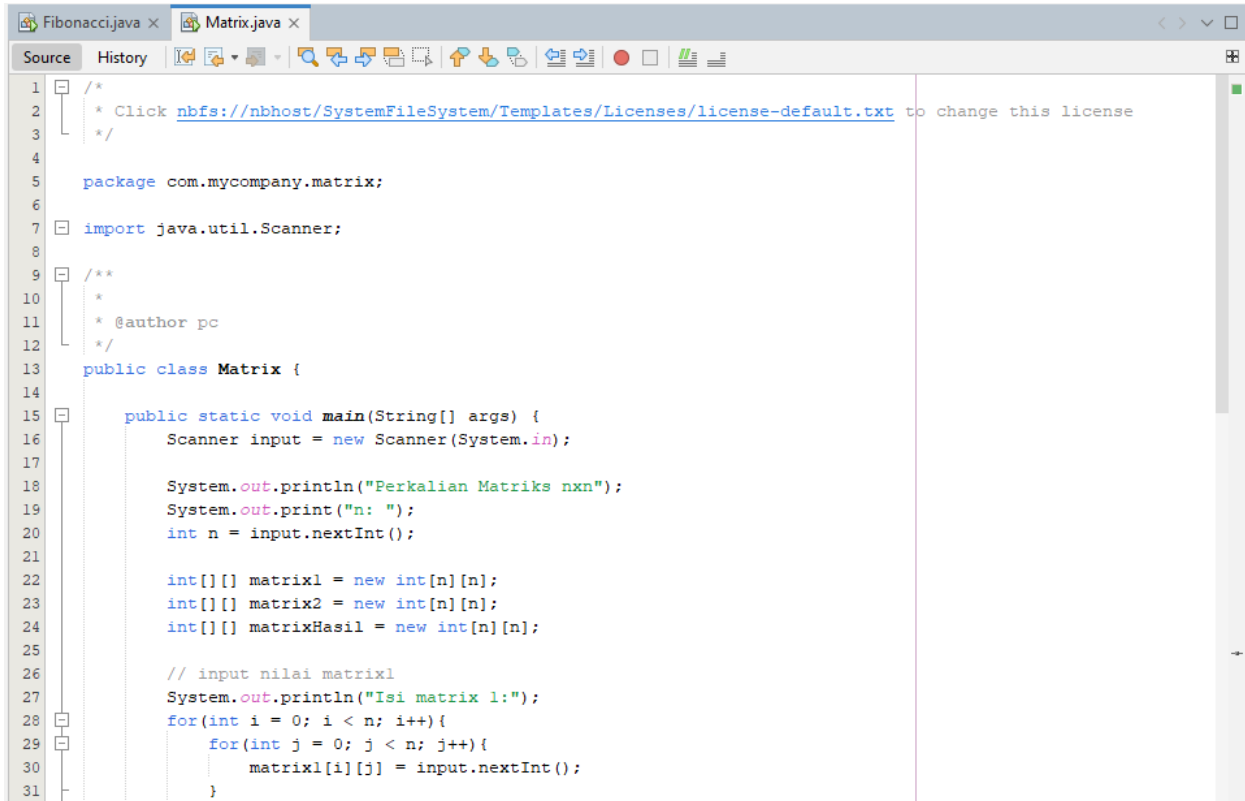
```
Masukkan n: 11
1 1 2 3 5 8 13 21 34 55 89

--------------------------------------------------------------------------

BUILD SUCCESS

--------------------------------------------------------------------------

Total time:  9.891 s
Finished at: 2024-09-21T15:36:15+07:00

--------------------------------------------------------------------------
```

2. Perkalian Matrix

Source code:

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 */

package com.mycompany.matrix;

import java.util.Scanner;

/**
 *
 * @author pc
 */
public class Matrix {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.println("Perkalian Matriks nxn");
        System.out.print("n: ");
        int n = input.nextInt();

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

        // input nilai matrix1
        System.out.println("Isi matrix 1:");
        for(int i = 0; i < n; i++){
            for(int j = 0; j < n; j++){
                matrix1[i][j] = input.nextInt();
            }
```

```java
31              }
32          }
33
34          // input nilai matrix2
35          System.out.println("Isi matrix 2:");
36          for(int i = 0; i < n; i++){
37              for(int j = 0; j < n; j++){
38                  matrix2[i][j] = input.nextInt();
39              }
40          }
41
42          // perkalian matrix nxn
43          System.out.println("Hasil Perkalian:");
44          for(int i = 0; i < n; i++){
45              for(int j = 0; j < n; j++){
46                  matrixHasil[i][j] = 0;
47                  for(int k = 0; k < n; k++){
48                      matrixHasil[i][j] += matrix1[i][k] * matrix2[k][j];
49                  }
50              System.out.print(matrixHasil[i][j] + " ");
51              }
52          System.out.println();
53          }
54
55      }
56  }
57
```

Output:

```
Perkalian Matriks nxn
n: 2
Isi matrix 1:
3 -2
4 5
Isi matrix 2:
5 1
-1 2
Hasil Perkalian:
17 -1
15 14
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
Total time:  19.434 s
Finished at: 2024-09-21T15:38:25+07:00
------------------------------------------------------------------------
|
```