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 Praktikum : Rekayasa Perangkat Lunak 2, Pertemuan 1

1. Jelaskan apa yang kalian ketahui tentang Rekayasa Perangkat Lunak

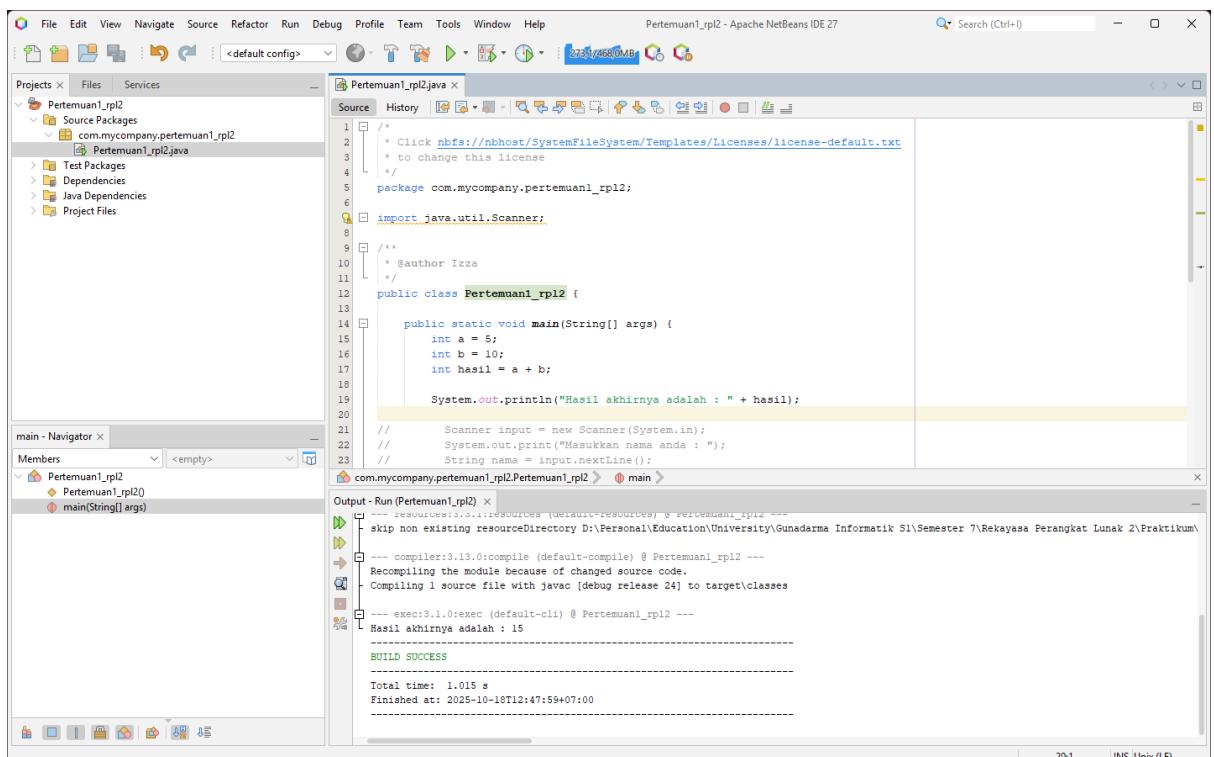
Jawab:

Rekayasa Perangkat Lunak adalah disiplin ilmu yang mempelajari pendekatan sistematis, terstruktur, dan terukur dalam pengembangan, pengoperasian, serta pemeliharaan perangkat lunak. Bidang ini tidak hanya berfokus pada proses penulisan kode, tetapi juga mencakup analisis kebutuhan, perancangan sistem, implementasi, pengujian, dokumentasi, hingga manajemen proyek perangkat lunak. Tujuan utama dari rekayasa perangkat lunak adalah menghasilkan perangkat lunak yang berkualitas tinggi, sesuai dengan kebutuhan pengguna, mudah dipelihara, efisien, serta dapat digunakan secara berkelanjutan. Dengan menerapkan prinsip-prinsip rekayasa, perangkat lunak dapat dikembangkan secara lebih disiplin, terukur, dan dapat diprediksi baik dari segi biaya, waktu, maupun kualitas. Selain itu, rekayasa perangkat lunak juga menekankan pentingnya kolaborasi tim, penggunaan metodologi pengembangan seperti waterfall atau agile, serta penerapan standar industri agar perangkat lunak yang dihasilkan mampu memberikan nilai tambah dan mendukung tujuan organisasi atau perusahaan.

2. Screenshot kode dan output dari program yang telah dibuat

Jawab:

- Input dan Output 1



The screenshot shows the NetBeans IDE interface with the following details:

- Project Explorer:** Shows a project named "Pertemuan1_rpl2" with a single source package "com.mycompany.pertemuan1_rpl2" containing the file "Pertemuan1_rpl2.java".
- Code Editor:** Displays the Java code for "Pertemuan1_rpl2.java". The code includes imports for `java.util.Scanner` and a main method that adds two integers (5 and 10) and prints the result ("Hasil akhirnya adalah : 15").
- Output Window:** Shows the build and run logs. It indicates a successful compilation ("BUILD SUCCESS") and execution ("Hasil akhirnya adalah : 15").
- Status Bar:** Shows the time as "20:1" and the platform as "INS Unix (LF)".

```

/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt
 * to change this license
 *
 * package com.mycompany.pertemuan1_rpl2;
 *
 * import java.util.Scanner;
 *
 */
/*
 * @author Izza
 */
public class Pertemuan1_rpl2 {
    public static void main(String[] args) {
        int a = 5;
        int b = 10;
        int hasil = a + b;

        System.out.println("Hasil akhirnya adalah : " + hasil);
    }
}

```

- Input dan Output 2

The screenshot shows the Apache NetBeans IDE interface with the following details:

- Projects View:** Shows a project named "Pertemuan1_rpl2" with a source package "com.mycompany.pertemuan1_rpl2" containing the file "Pertemuan1_rpl2.java".
- Source Editor:** Displays the Java code for "Pertemuan1_rpl2.java". The code includes a main method that adds two integers, prints the result, prompts for a name, and prints a greeting. It also contains a loop that prints numbers from 0 to 10.
- Output Window:** Shows the terminal output of the run command. It starts with compilation logs, followed by the user input "Masukkan nama anda : Muhammad Izzuddin Almansyur", the program's response "Halo, Muhammad Izzuddin Almansyur", and the message "BUILD SUCCESS".
- Navigator View:** Shows the members of the "Pertemuan1_rpl2" class, including the "main(String[] args)" method.

- Input dan Output 3

The screenshot shows the Apache NetBeans IDE interface with the following details:

- Projects View:** Shows a project named "Pertemuan1_rpl2" with a source package "com.mycompany.pertemuan1_rpl2" containing the file "Pertemuan1_rpl2.java".
- Source Editor:** Displays the Java code for "Pertemuan1_rpl2.java". The code is identical to the one in the previous screenshot, including the addition of two integers, the prompt for a name, the greeting, and the loop that prints numbers from 0 to 10.
- Output Window:** Shows the terminal output of the run command. It starts with compilation logs, followed by the user input "Masukkan nama anda : Muhammad Izzuddin Almansyur", the program's response "Halo, Muhammad Izzuddin Almansyur", and the message "BUILD SUCCESS".
- Navigator View:** Shows the members of the "Pertemuan1_rpl2" class, including the "main(String[] args)" method.

- Input dan Output 4

The screenshot shows the Apache NetBeans IDE interface with the following details:

- Projects View:** Shows a project named "Pertemuan1_rpl2" with a source package "com.mycompany.pertemuan1_rpl2" containing a file "Pertemuan1_rpl2.java".
- Code Editor:** Displays the Java code for "Pertemuan1_rpl2.java". The code prints "Hello, " + nama, then loops 10 times printing "Angka ke-". It then defines an integer "angka" and uses an if-else-if-else structure to print whether it's positive, negative, or zero.
- Output View:** Shows the build log for "Pertemuan1_rpl2". It starts with "from pom.xml", then lists resources, compiler tasks, and an exec task. The exec task outputs "Angka positif" and ends with "BUILD SUCCESS". The log also includes the total time taken and the finished date.
- Bottom Status Bar:** Shows "402" and "INS Unix (LF)".

```
25 // System.out.println("Hello, " + nama);
26 // for (int i = 0; i <= 10; i++) {
27 //     System.out.println("Angka ke-" + i);
28 // }
29 //
30 int angka = 3;
31 if (angka > 0) {
32     System.out.println("Angka positif");
33 } else if (angka < 0) {
34     System.out.println("Angka negatif");
35 } else {
36     System.out.println("Angka nol");
37 }
38 }
39 }
40 }
```

```
from pom.xml
[ jar ]-----
--- resources:3.3.1:resources (default-resources) @ Pertemuan1_rpl2 ---
skip non existing resourceDirectory D:\Personal\Education\University\Gunadarma Informatik S1\Semester 7\Rekayasa Perangkat
--- compiler:3.13.0:compile (default-compile) @ Pertemuan1_rpl2 ---
Recompiling the module because of changed source code.
- Compiling 1 source file with javac [debug release 24] to target\classes
--- exec:3.1.0:exec (default-cli) @ Pertemuan1_rpl2 ---
Angka positif
-----
BUILD SUCCESS
-----
Total time: 1.008 s
Finished at: 2025-10-18T12:53:03+07:00
-----
```