

**TUGAS PENDAHULUAN  
KONSTRUKSI PERANGKAT LUNAK**

**MODUL 13**

**Clean\_Code**



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**SE-06-01**

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**PROGRAM STUDI S1 REKAYASA PERANGKAT LUNAK**

**FAKULTAS INFORMATIKA**

**TELKOM UNIVERSITY PURWOKERTO**

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## TUGAS PENDAHULUAN

### 1. Screenshot hasil run

Sebelum Refactoring

```
Hasil Tambah: 8
Hasil Kali: 15

C:\SEMESTER 6\PRAKTIKUM KONSTRUKSI PERANGKAT
4002\bin\Debug\tpmodul14_2211104002.exe (p
To automatically close the console when de
le when debugging stops.
Press any key to close this window . . .
```

Sesudah Refactoring

```
Microsoft Visual Studio Debug Console
Hasil Penjumlahan: 8
Hasil Perkalian: 15

C:\SEMESTER 6\PRAKTIKUM KONSTRUKSI PERANGKAT
4002\bin\Debug\tpmodul14_2211104002.exe (p
To automatically close the console when de
le when debugging stops.
Press any key to close this window . . .
```

### 2. Refactoring

Sebelum Refactoring Source Code :

Aljabar.cs

```
tpmodul14_2211104002
1  using System;
2
3  namespace AljabarApp
4  {
5      2 references
6      class Aljabar
7      {
8          1 reference
9          public int Tambah(int a, int b)
10         {
11             return a + b;
12         }
13
14         1 reference
15         public int Kali(int a, int b)
16         {
17             return a * b;
18         }
19     }
20 }
```

## Program.cs

```
tpmodul14_2211104002 AljabarApp
1  using System;
2
3  namespace AljabarApp
4  {
5      0 references
6      class Program
7      {
8          0 references
9          static void Main(string[] args)
10         {
11             Aljabar a = new Aljabar();
12             Console.WriteLine("Hasil Tambah: " + a.Tambah(5, 3));
13             Console.WriteLine("Hasil Kali: " + a.Kali(5, 3));
14         }
15     }
16 }
```

Sesudah Refactoring Source Code :

Aljabar.cs

```

Aljabar.cs  Program.cs
tpmodul14_2211104002  AljabarApp.Aljabar
1  using System;
2
3  namespace AljabarApp
4  {
5      /// <summary>
6      /// Kelas Aljabar berisi operasi matematika dasar.
7      /// </summary>
8      2 references
9      public class Aljabar
10     {
11         /// <summary>
12         /// Menambahkan dua bilangan bulat.
13         /// </summary>
14         1 reference
15         public int Add(int number1, int number2)
16         {
17             return number1 + number2;
18         }
19
20         /// <summary>
21         /// Mengalikan dua bilangan bulat.
22         /// </summary>
23         1 reference
24         public int Multiply(int number1, int number2)
25         {
26             return number1 * number2;
27         }
28     }
29 }

```

## Program.cs

```

tpmodul14_2211104002  AljabarApp.Program
1  using System;
2
3  namespace AljabarApp
4  {
5      /// <summary>
6      /// Program utama untuk menjalankan operasi aljabar.
7      /// </summary>
8      0 references
9      public class Program
10     {
11         0 references
12         public static void Main(string[] args)
13         {
14             Aljabar calculator = new Aljabar();
15
16             Console.WriteLine("Hasil Penjumlahan: " + calculator.Add(5, 3));
17             Console.WriteLine("Hasil Perkalian: " + calculator.Multiply(5, 3));
18         }
19     }
20 }

```

## Penjelasan Perubahan (refactoring)

Aspek	Perubahan
Naming Convention	Tambah → Add, Kali → Multiply, a →

	<b>calculator</b>
<b>Indentation</b>	<b>Sudah sesuai standard .NET (4-spaces)</b>
<b>White Space</b>	<b>Spasi ditambahkan antar method dan blok using / namespace</b>
<b>Comment</b>	<b>Menambahkan XML-style comments (///) untuk class dan method</b>
<b>Deklarasi Variable</b>	<b>Gunakan nama variabel deskriptif: number1, number2</b>