

JURNAL MODUL 5
GENERIC



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PROGRAM STUDI S1 REKAYASA PERANGKAT
LUNAK
TELKOM UNIVERSITY PURWOKERTO
2025

1. Melakukan git commit pada project

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076> git init
Reinitialized existing Git repository in C:/Users/Lenovo/source/repos/KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076/.git/
PS C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076> git add .
PS C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076> git commit -m "first commit"
[main (root-commit) 3987c5f] first commit
23 files changed, 364 insertions(+)
create mode 100644 .vs/ProjectEvaluation/tjmodul5_2311104076.metadata.v9.bin
create mode 100644 .vs/ProjectEvaluation/tjmodul5_2311104076.projects.v9.bin
create mode 100644 .vs/ProjectEvaluation/tjmodul5_2311104076.strings.v9.bin
create mode 100644 .vs/tjmodul5_2311104076/DesignTimeBuild/.dtbcache.v2
create mode 100644 .vs/tjmodul5_2311104076/FileContentIndex/52856c7e-046d-4855-8842-07cd7a2d0d48.vsidx
create mode 100644 .vs/tjmodul5_2311104076/v17/.fudtcache.v2
create mode 100644 .vs/tjmodul5_2311104076/v17/.suo
create mode 100644 .vs/tjmodul5_2311104076/v17/DocumentLayout.backup.json
create mode 100644 .vs/tjmodul5_2311104076/v17/DocumentLayout.json
create mode 100644 tjmodul5_2311104076.sln
create mode 100644 tjmodul5_2311104076/Program.cs
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/.NETCoreApp,Version=v8.0.AssemblyAttributes.cs
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/tjmodul5_2311104076.AssemblyInfo.cs
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/tjmodul5_2311104076.AssemblyInfoInputs.cache
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/tjmodul5_2311104076.GeneratedMSBuildEditorConfig.editorconfig
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/tjmodul5_2311104076.GlobalUsings.g.cs
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/tjmodul5_2311104076.assets.cache
create mode 100644 tjmodul5_2311104076/obj/project.assets.json
create mode 100644 tjmodul5_2311104076/obj/project.nuget.cache
create mode 100644 tjmodul5_2311104076/obj/tjmodul5_2311104076.csproj.nuget.dgspec.json
create mode 100644 tjmodul5_2311104076/obj/tjmodul5_2311104076.csproj.nuget.g.props
create mode 100644 tjmodul5_2311104076/obj/tjmodul5_2311104076.csproj.nuget.g.targets
create mode 100644 tjmodul5_2311104076/tjmodul5_2311104076.csproj
PS C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076> git branch -M main
PS C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076> git remote add origin https://gi

Windows PowerShell
create mode 100644 .vs/ProjectEvaluation/tjmodul5_2311104076.strings.v9.bin
create mode 100644 .vs/tjmodul5_2311104076/DesignTimeBuild/.dtbcache.v2
create mode 100644 .vs/tjmodul5_2311104076/FileContentIndex/52856c7e-046d-4855-8842-07cd7a2d0d48.vsidx
create mode 100644 .vs/tjmodul5_2311104076/v17/.fudtcache.v2
create mode 100644 .vs/tjmodul5_2311104076/v17/.suo
create mode 100644 .vs/tjmodul5_2311104076/v17/DocumentLayout.backup.json
create mode 100644 .vs/tjmodul5_2311104076/v17/DocumentLayout.json
create mode 100644 tjmodul5_2311104076.sln
create mode 100644 tjmodul5_2311104076/Program.cs
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/.NETCoreApp,Version=v8.0.AssemblyAttributes.cs
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/tjmodul5_2311104076.AssemblyInfo.cs
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/tjmodul5_2311104076.AssemblyInfoInputs.cache
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/tjmodul5_2311104076.GeneratedMSBuildEditorConfig.editorconfig
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/tjmodul5_2311104076.GlobalUsings.g.cs
create mode 100644 tjmodul5_2311104076/obj/Debug/net8.0/tjmodul5_2311104076.assets.cache
create mode 100644 tjmodul5_2311104076/obj/project.assets.json
create mode 100644 tjmodul5_2311104076/obj/project.nuget.cache
create mode 100644 tjmodul5_2311104076/obj/tjmodul5_2311104076.csproj.nuget.dgspec.json
create mode 100644 tjmodul5_2311104076/obj/tjmodul5_2311104076.csproj.nuget.g.props
create mode 100644 tjmodul5_2311104076/obj/tjmodul5_2311104076.csproj.nuget.g.targets
create mode 100644 tjmodul5_2311104076/tjmodul5_2311104076.csproj
PS C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076> git branch -M main
PS C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076> git remote add origin https://gi
thub.com/rabaniahya/tjmodul5_2311104076.git
error: remote origin already exists.
PS C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076> git push -u origin main
Enumerating objects: 35, done.
Counting objects: 100% (35/35), done.
Delta compression using up to 12 threads
Compressing objects: 100% (33/33), done.
Writing objects: 100% (35/35), 54.91 KiB | 2.03 MiB/s, done.
Total 35 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), done.
To https://github.com/rabaniahya/tjmodul5_2311104076.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
PS C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076> |
```

2. Membuat branch baru pada git project

Disini saya membuat branch baru yaitu implementasi-generic-method dan berpindah ke branch tersebut

```
C:\Windows\system32\cmd.exe
** Visual Studio 2022 Developer Command Prompt v17.13.0
** Copyright (c) 2022 Microsoft Corporation
*****

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git status
On branch main
Your branch is up to date with 'origin/main'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   .vs\tjmodul5_2311104076\v17\..suo
        modified:   .vs\tjmodul5_2311104076\v17\DocumentLayout.backup.json

no changes added to commit (use "git add" and/or "git commit -a")

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git branch implementasi-generic-method

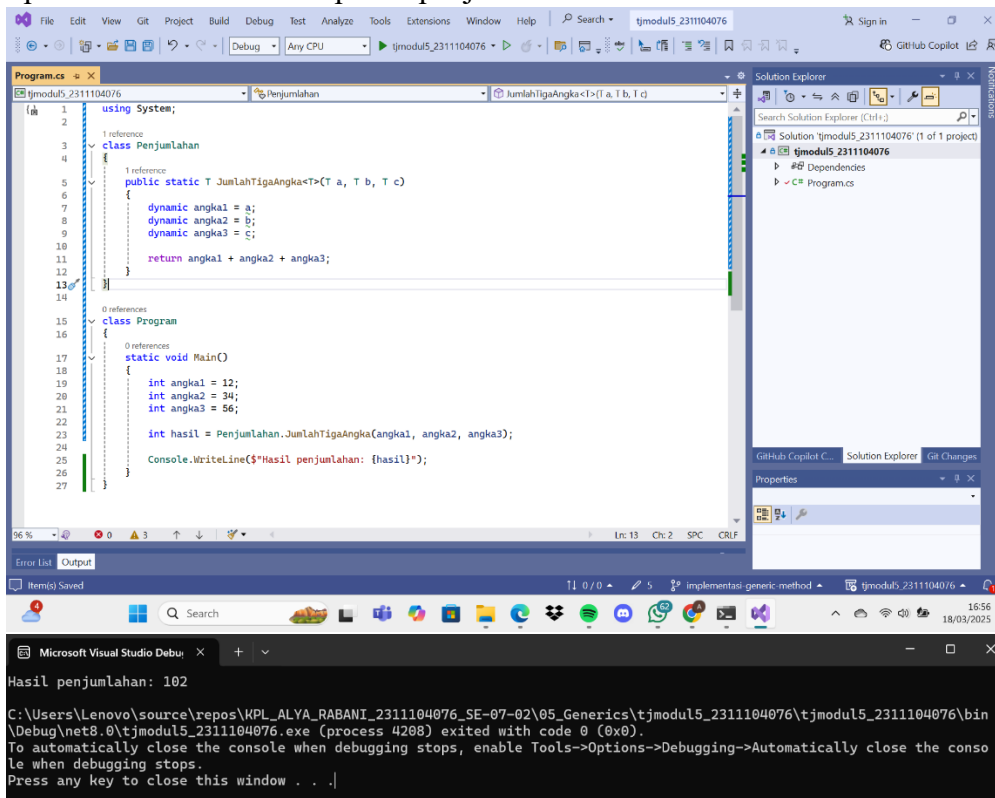
C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git checkout implementasi-generic-method
M      .vs\tjmodul5_2311104076\v17\..suo
M      .vs\tjmodul5_2311104076\v17\DocumentLayout.backup.json
Switched to branch 'implementasi-generic-method'

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git branch
* implementasi-generic-method
  main

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>
```

3. Menambah method dengan generic

Kode ini mendefinisikan sebuah kelas bernama "Penjumlahan" yang memiliki metode generik "JumlahTigaAngka<T>". Metode ini dirancang untuk menjumlahkan tiga angka dengan tipe data yang berbeda-beda, berkat penggunaan kata kunci "dynamic". Dalam fungsi "Main()", pengguna diminta untuk memasukkan tiga angka yang sesuai dengan dua digit terakhir dari Nomor Induk Mahasiswa (NIM) mereka. Tipe data input harus disesuaikan berdasarkan aturan berikut: "float" untuk NIM yang berakhiran 1 atau 2, "double" untuk 3, 4, atau 5, "int" untuk 6, 7, atau 8, dan "long" untuk 9 atau 0. Dengan demikian, kode ini memberikan fleksibilitas dalam menerima dan memproses berbagai tipe data numerik untuk operasi penjumlahan.



```
using System;

class Penjumlahan
{
    public static T JumlahTigaAngka<T>(T a, T b, T c)
    {
        dynamic angka1 = a;
        dynamic angka2 = b;
        dynamic angka3 = c;

        return angka1 + angka2 + angka3;
    }
}

class Program
{
    static void Main()
    {
        int angka1 = 12;
        int angka2 = 34;
        int angka3 = 56;

        int hasil = Penjumlahan.JumlahTigaAngka(angka1, angka2, angka3);

        Console.WriteLine($"Hasil penjumlahan: {hasil}");
    }
}
```

Microsoft Visual Studio Debug Console Output:

```
Hasil penjumlahan: 102

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076\bin\Debug\net8.0\tjmodul5_2311104076.exe (process 4208) exited with code 0 (0x0).
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

4. Melakukan commit, push dan pindah branch

Setelah membuat kode tadi kita commit dan push ke github lalu saya membuat branch baru yaitu implementasi-generic-class dan switch ke branch tersebut.

```
C:\Windows\system32\cmd.exe

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git add .

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git commit -m "menambahkan class Penjumlahan dengan method"
error: pathspec 'class' did not match any file(s) known to git
error: pathspec 'Penjumlahan' did not match any file(s) known to git
error: pathspec 'dengan' did not match any file(s) known to git
error: pathspec 'method' did not match any file(s) known to git

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git commit -m "menambahkan class Penjumlahan dengan method"
error: pathspec 'class' did not match any file(s) known to git
error: pathspec 'Penjumlahan' did not match any file(s) known to git
error: pathspec 'dengan' did not match any file(s) known to git
error: pathspec 'method' did not match any file(s) known to git

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git commit -m "menambahkan class Penjumlahan dengan method"
[implementasi-generic-method 3d88a6e] menambahkan class Penjumlahan dengan method
24 files changed, 84 insertions(+), 6 deletions(-)
delete mode 100644 .vs\tjmodul5_2311104076\FileContentIndex\52856c7e-046d-4855-8842-07cd7a2d0d48.vsidx
create mode 100644 .vs\tjmodul5_2311104076\FileContentIndex\d93581dc-cc59-469b-847d-e93695a651ad.vsidx
create mode 100644 tjmodul5_2311104076\bin\Debug\net8.0\tjmodul5_2311104076.deps.json
create mode 100644 tjmodul5_2311104076\bin\Debug\net8.0\tjmodul5_2311104076.dll
create mode 100644 tjmodul5_2311104076\bin\Debug\net8.0\tjmodul5_2311104076.exe
create mode 100644 tjmodul5_2311104076\bin\Debug\net8.0\tjmodul5_2311104076.pdb
create mode 100644 tjmodul5_2311104076\bin\Debug\net8.0\tjmodul5_2311104076.runtimeconfig.json
create mode 100644 tjmodul5_2311104076\obj\Debug\net8.0\apphost.exe
create mode 100644 tjmodul5_2311104076\obj\Debug\net8.0\ref\tjmodul5_2311104076.dll
create mode 100644 tjmodul5_2311104076\obj\Debug\net8.0\refint\tjmodul5_2311104076.dll
create mode 100644 tjmodul5_2311104076\obj\Debug\net8.0\tjmodul5_2311104076.csproj.BuildWithSkipAnalyzers
create mode 100644 tjmodul5_2311104076\obj\Debug\net8.0\tjmodul5_2311104076.csproj.CoreCompileInputs.cache
create mode 100644 tjmodul5_2311104076\obj\Debug\net8.0\tjmodul5_2311104076.csproj.FileListAbsolute.txt
create mode 100644 tjmodul5_2311104076\obj\Debug\net8.0\tjmodul5_2311104076.dll
create mode 100644 tjmodul5_2311104076\obj\Debug\net8.0\tjmodul5_2311104076.genruntimeconfig.cache
create mode 100644 tjmodul5_2311104076\obj\Debug\net8.0\tjmodul5_2311104076.pdb

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git push origin implementasi-generic-method
Enumerating objects: 46, done.
Counting objects: 100% (46/46), done.
Delta compression using up to 12 threads
Compressing objects: 100% (28/28), done.
Writing objects: 100% (32/32), 78.86 KiB | 2.82 MiB/s, done.
Total 32 (delta 7), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (7/7), completed with 6 local objects.
remote:
remote: Create a pull request for 'implementasi-generic-method' on GitHub by visiting:
remote:   https://github.com/rabaniaalya/tjmodul5_2311104076/pull/new/implementasi-generic-method
remote:
To https://github.com/rabaniaalya/tjmodul5_2311104076.git
 * [new branch]      implementasi-generic-method -> implementasi-generic-method

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git branch
* implementasi-generic-method
main

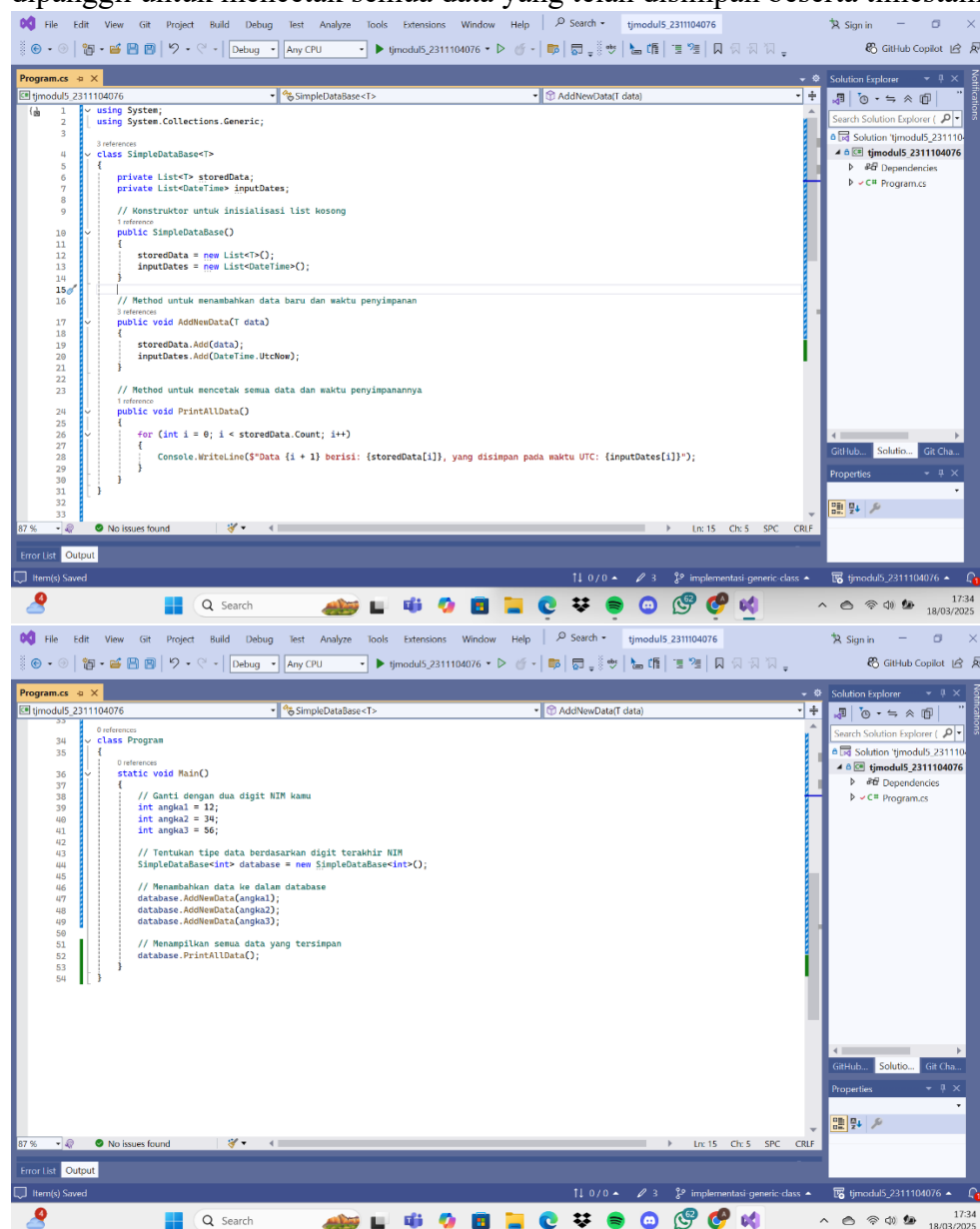
C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git checkout implementasi-generic-method
Already on 'implementasi-generic-method'

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git switch main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git branch implementasi-generic-class
C:\Users\Lenovo\source\repos\KPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5_2311104076>git checkout implementasi-generic-class
Switched to branch 'implementasi-generic-class'
```

5. Menambahkan method dengan generic

Implementasi ini menjelaskan sebuah kelas bernama "SimpleDataBase" yang dirancang untuk menyimpan data dengan tipe generik. Kelas ini memiliki properti "storedData", sebuah list yang digunakan untuk menyimpan data, dan "inputDates", sebuah list untuk mencatat waktu penambahan data dalam format DateTime. Konstruktor "SimpleDataBase()" menginisialisasi kedua list tersebut sebagai list kosong. Kelas ini juga memiliki metode "AddNewData(T)" yang berfungsi untuk menambahkan data baru ke "storedData" dan mencatat timestamp penambahan ke "inputDates". Metode "PrintAllData()" digunakan untuk menampilkan semua data yang tersimpan beserta waktu penyimpanannya dalam format UTC. Dalam pengujian di fungsi "Main()", tiga angka dari dua digit terakhir NIM ditambahkan ke database sesuai dengan tipe data yang ditentukan dalam tugas 4E. Kemudian, metode "PrintAllData()" dipanggil untuk mencetak semua data yang telah disimpan beserta timestamp-nya.



The image displays two screenshots of a Visual Studio IDE, showing the implementation of a generic class and its usage.

Top Screenshot: SimpleDataBase Class Implementation

```

1  using System;
2  using System.Collections.Generic;
3
4  class SimpleDataBase<T>
5  {
6      private List<T> storedData;
7      private List<DateTime> inputDates;
8
9      // Konstruktor untuk inisialisasi list kosong
10     public SimpleDataBase()
11     {
12         storedData = new List<T>();
13         inputDates = new List<DateTime>();
14     }
15
16     // Method untuk menambahkan data baru dan waktu penyimpanan
17     public void AddNewData(T data)
18     {
19         storedData.Add(data);
20         inputDates.Add(DateTime.UtcNow);
21     }
22
23     // Method untuk mencetak semua data dan waktu penyimpanannya
24     public void PrintAllData()
25     {
26         for (int i = 0; i < storedData.Count; i++)
27         {
28             Console.WriteLine($"Data {i + 1} berisi: {storedData[i]}, yang disimpan pada waktu UTC: {inputDates[i]}");
29         }
30     }
31 }

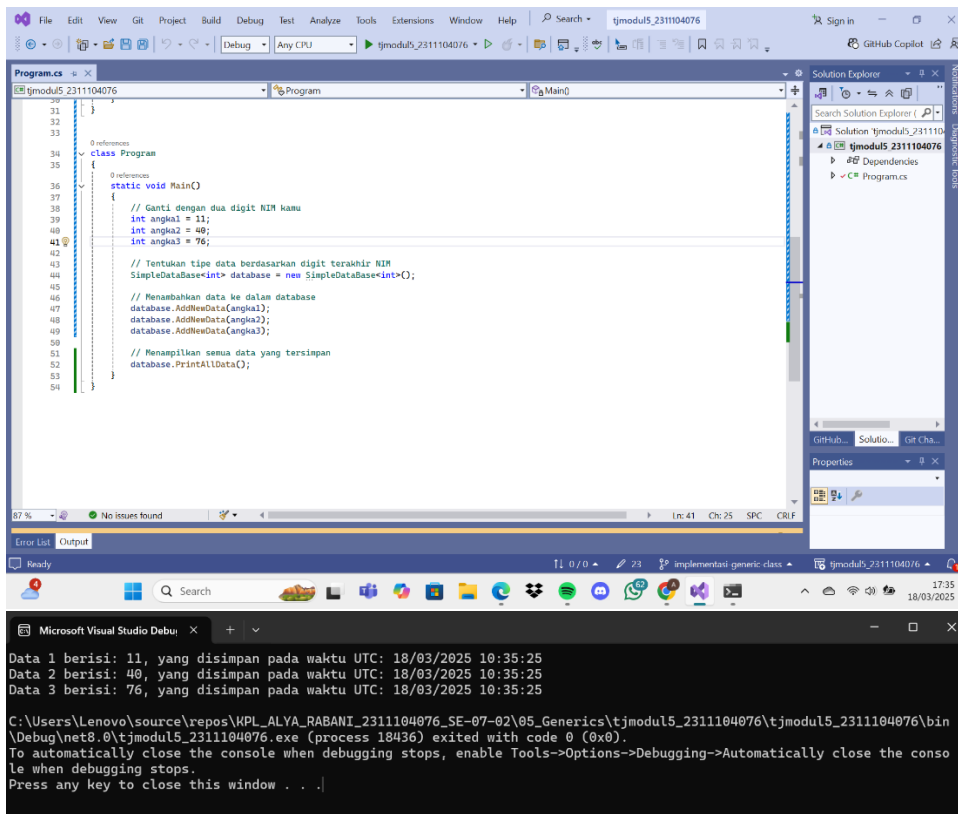
```

Bottom Screenshot: Main Method Implementation

```

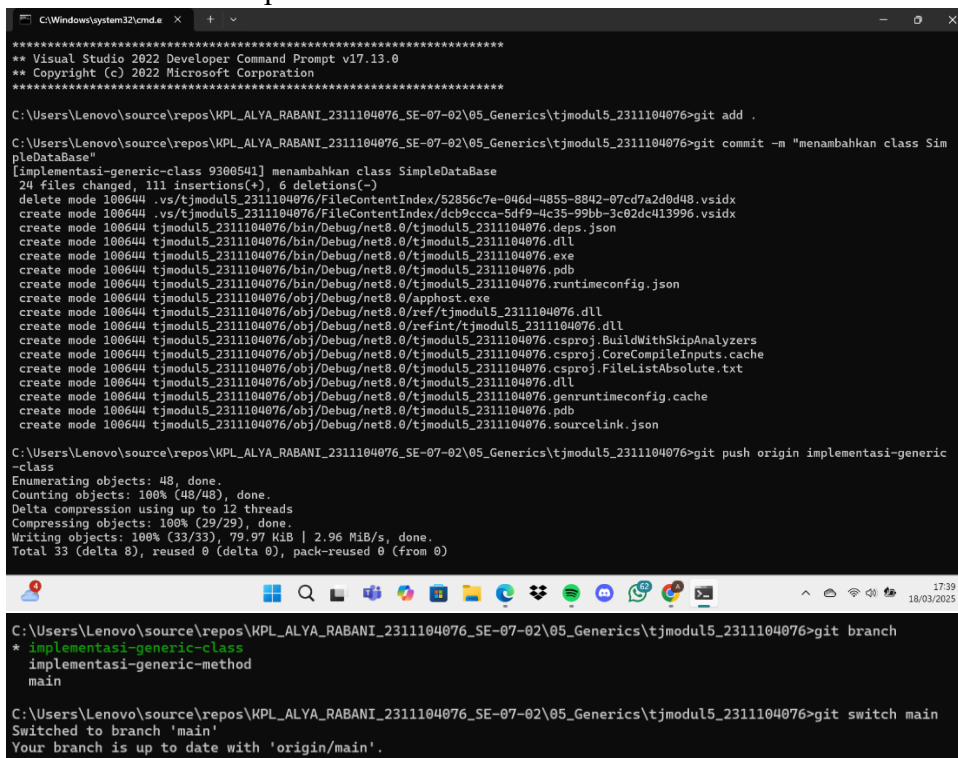
34 class Program
35 {
36     static void Main()
37     {
38         // Ganti dengan dua digit NIM kamu
39         int angka1 = 12;
40         int angka2 = 34;
41         int angka3 = 56;
42
43         // Tentukan tipe data berdasarkan digit terakhir NIM
44         SimpleDataBase<int> database = new SimpleDataBase<int>();
45
46         // Menambahkan data ke dalam database
47         database.AddNewData(angka1);
48         database.AddNewData(angka2);
49         database.AddNewData(angka3);
50
51         // Menampilkan semua data yang tersimpan
52         database.PrintAllData();
53     }
54 }

```



6. Melakukan commit, push dan pindah branch bagian 2

Jika sudah membuatnya sekarang commit dan push kode yang telah di buat pada branch tersebut. Kemudian pindah branch ke main.



7. Melakukan git merge dari kedua branch

Nah disini kita melakukan merge untuk mengambil perubahan terbaru dari branch kedua branch yang telah dibuat tadi di branch utama.

```
C:\Windows\system32cmd.exe x +
C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076-git branch
implementasi-generic-class
implementasi-generic-method
main
C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076-git merge implementasi-
generic-method
Updating 398f7c3f..3d8a86e
fast-forward
.../528561dc-046d-4b85-8842-07cd7a2d6048.vsidx | Bin 3492 -> 0 bytes
.../d93581dc-cc59-469b-847d-93699a5a61ad.vsidx | Bin 0 -> 4085 bytes
.vs\tjmodul5.2311104076\l17\, futcdache.v2 | Bin 209 -> 289 bytes
...vs\tjmodul5.2311104076\l17\, suo | Bin 22016 -> 27136 bytes
.../l17\DocumentLayout, backup.json | 2 +-
...vs\tjmodul5.2311104076\l17\DocumentLayout.json | 2 +-
tjmodul5.2311104076\Program.cs | 29 ++++++-----
.../bin/Debug/net8.0\tjmodul5.2311104076.deps.json | 23 +++++
.../bin/Debug/net8.0\tjmodul5.2311104076.dll | Bin 0 -> 6656 bytes
.../bin/Debug/net8.0\tjmodul5.2311104076.exe | Bin 0 -> 139264 bytes
.../bin/Debug/net8.0\tjmodul5.2311104076.pdb | Bin 0 -> 11112 bytes
.../net8.0\tjmodul5.2311104076.runtimeconfig.json | 32 +++++
tjmodul5.2311104076\obj\Debug\net8.0\Apphost.exe | Bin 0 -> 139264 bytes
.../obj/Debug/net8.0/ref\tjmodul5.2311104076.dll | Bin 0 -> 6184 bytes
.../tjmodul5.0/ref/int\tjmodul5.2311104076.dll | Bin 0 -> 6184 bytes
.../net8.0\tjmodul5.2311104076.AssemblyInfo.cs | 2 +-
.../tjmodul5.2311104076.AssemblyInfoInputs.cache | 15
.../tjmodul5.2311104076.csproj.BuildWithSkipAnalyzers | 0
.../tjmodul5.2311104076.csproj.CoreCompileInputs.cache | 1 +
.../tjmodul5.2311104076.csproj.FileListAbsolute.txt | 10 +++++
.../obj/Debug/net8.0\tjmodul5.2311104076.dll | Bin 0 -> 6656 bytes
.../tjmodul5.2311104076.genruntimeconfig.cache | 1 +
.../obj/Debug/net8.0\tjmodul5.2311104076.pdb | Bin 0 -> 11112 bytes
Auto-merging .vs\tjmodul5.2311104076\sourceLink.json
24 files changed, 81 insertions(+), 6 deletions(-)
delete mode 106644 .vs\tjmodul5.2311104076\FileContentIndex\528561dc-046d-4b85-8842-07cd7a2d6048.vsidx
create mode 106644 .vs\tjmodul5.2311104076\FileContentIndex\d93581dc-cc59-469b-847d-93699a5a61ad.vsidx
```

Jika membuka vscode branch main akan terlihat seperti ini, disini kita harus menggabungkan kode dari branch berbeda tadi, dilakukan perbaikan seperti menghapus “HEAD” dan “<<<<<<<<” agar tidak terjadi bentrok.

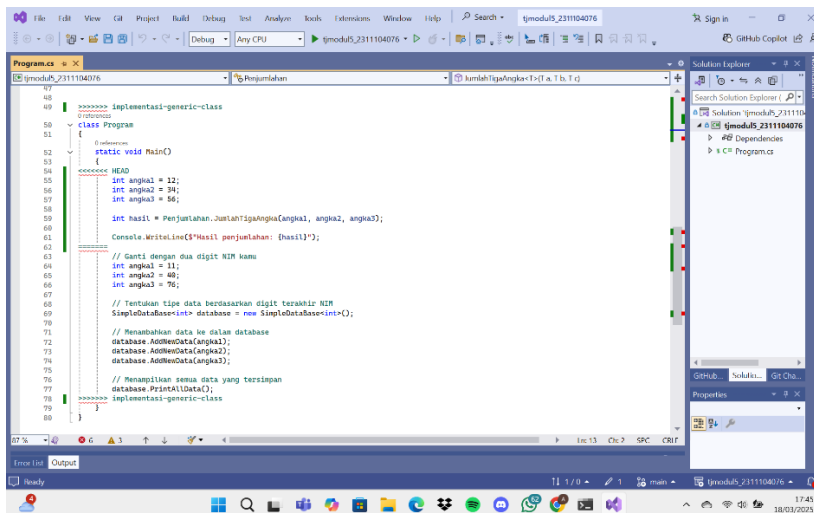
The screenshot shows the Visual Studio IDE with a C# project named 'ipmodul5_2311104076'. The code in the main editor is as follows:

```

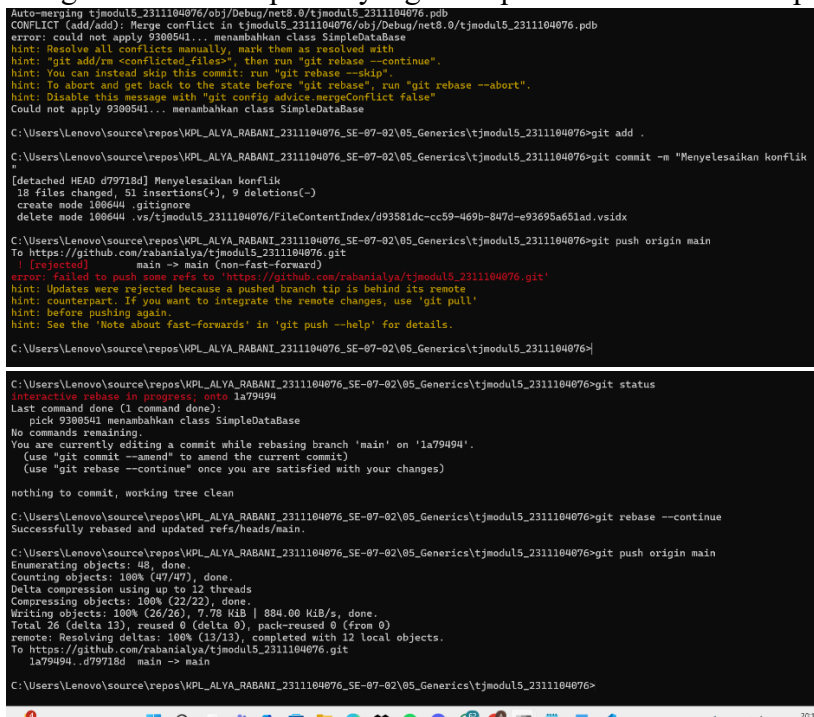
1 using System;
2 namespace HEAD
3 {
4     reference
5     {
6         class Penjualan
7         {
8             internal
9             {
10                 public static T JumlahTipeAngka*(T[] A, T B, T C)
11                 {
12                     dynamic angka1 = A;
13                     dynamic angka2 = B;
14                     dynamic angka3 = C;
15                     return angka1 + angka2 + angka3;
16                 }
17             }
18         }
19     }
20     using System.Collections.Generic;
21     {
22         class SimpelDatabase<T>
23         {
24             private List<T> storedData;
25             private List<DateT> inputDates;
26             // Konstruktor untuk inisialisasi list kosong
27             public SimpelDatabase()
28             {
29                 storedData = new List<T>();
30                 inputDates = new List<DateT>();
31             }
32             // Method untuk menambahkan data baru dan waktu penyimpanan
33             public void MenambahkanData(T data)
34             {
35                 storedData.Add(data);
36                 inputDates.Add(DateT.Now.LocalNow());
37             }
38         }
39     }
40 }

```

The Solution Explorer on the right shows the project structure with folders for 'Solution Explorer', 'Search Solution Explorer', and 'Program.cs'. The 'Program.cs' file is selected, showing its dependencies and a 'C# Program.cs' file.



Lalu, jika sudah memperbaiki kodenya kita add, commit lalu coba push. Jika misalnya terjadi kesalahan seperti ini kemungkinan karena belum di pull terlebih dahulu, tapi kalau misalnya sudah di pull tetap error biasanya karena ada file .vs yang ikut terbawa maka dari itu saya menutup jendela vscode dan menambah file .gitignore dan mengabaikan beberapa file yang tidak perlu. Jika sudah coba pull dan commit lagi.




```
C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git merge implementasi-generic-class
error: Merging is not possible because you have unmerged files.
hint: Fix them up in the work tree, and then use 'git add/rm <file>'
hint: as appropriate to mark resolution and make a commit.
fatal: Exiting because of an unresolved conflict.

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git add .

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git commit -m "Menyelesaikan merge c
onflict antara implementasi-generic-class dengan main"
[main f2bad73] Menyelesaikan merge conflict antara implementasi-generic-class dengan main

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git push origin main
To https://github.com/rabanialya/tjmodul5.2311104076.git
 * [rejected] main -> main (fetch first)
error: failed to push some refs to 'https://github.com/rabanialya/tjmodul5.2311104076.git'
hint: Updates were rejected because the remote contains work that you do not
hint: have locally. This is usually caused by another repository pushing to
hint: the same ref. If you want to integrate the remote changes, use
hint: 'git pull' before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git pull origin main --rebase
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (1/1), 917 bytes | 229.00 KiB/s, done.
From https://github.com/rabanialya/tjmodul5.2311104076
 * branch main -> FETCH_HEAD
3987c5f..1a79494 main -> origin/main
warning: Cannot merge binary files: .vs\tjmodul5.2311104076\v17\futdcache.v2 (HEAD vs. 9300541 (menambahkan class SimpleDataBase))
Auto-merging .vs\tjmodul5.2311104076\v17\futdcache.v2
CONFLICT (content): Merge conflict in .vs\tjmodul5.2311104076\v17\futdcache.v2
warning: Cannot merge binary files: .vs\tjmodul5.2311104076\v17\suo (HEAD vs. 9300541 (menambahkan class SimpleDataBase))
Auto-merging .vs\tjmodul5.2311104076\v17\suo
```

```
C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git add .

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git commit -m "Menyelesaikan konflik
k"
[detached HEAD d79718d] Menyelesaikan konflik
18 files changed, 51 insertions(+), 9 deletions(-)
create mode 100604 .gitignore
delete mode 100604 .vs\tjmodul5.2311104076\FileContentIndex\d93581dc-cc59-469b-847d-e93695a651ad.vsidx

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git push origin main
To https://github.com/rabanialya/tjmodul5.2311104076.git
 * [rejected] main -> main (non-fast-forward)
error: failed to push some refs to 'https://github.com/rabanialya/tjmodul5.2311104076.git'
hint: Updates were rejected because a pushed branch tip is behind its remote
hint: counterpart. If you want to integrate the remote changes, use 'git pull'
hint: before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git pull origin main --rebase
From https://github.com/rabanialya/tjmodul5.2311104076
 * branch main -> FETCH_HEAD
fatal: It seems that there is already a rebase-merge directory, and
I wonder if you are in the middle of another rebase. If that is the
case, please try
git rebase (--continue | --abort | --skip)
If that is not the case, please
rm -fr ".git/rebase-merge"
and run me again. I am stopping in case you still have something
valuable there.

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git status
interactive rebase in progress; onto 1a79494
Last command done (1 command done):
pick 9300541 menambahkan class SimpleDataBase
No commands remaining.
```

```
* branch main -> FETCH_HEAD
fatal: It seems that there is already a rebase-merge directory, and
I wonder if you are in the middle of another rebase. If that is the
case, please try
git rebase (--continue | --abort | --skip)
If that is not the case, please
rm -fr ".git/rebase-merge"
and run me again. I am stopping in case you still have something
valuable there.

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git status
interactive rebase in progress; onto 1a79494
Last command done (1 command done):
pick 9300541 menambahkan class SimpleDataBase
No commands remaining.
You are currently editing a commit while rebasing branch 'main' on '1a79494'.
(use "git commit --amend" to amend the current commit)
(use "git rebase --continue" once you are satisfied with your changes)

nothing to commit, working tree clean

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git rebase --continue
Successfully rebased and updated refs/heads/main.

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>git push origin main
Enumerating objects: 48, done.
Counting objects: 100% (47/47), done.
Delta compression using up to 12 threads
Compressing objects: 100% (22/22), done.
Writing objects: 100% (26/26), 7.78 KiB | 894.00 KiB/s, done.
Total 26 (delta 13), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (13/13), completed with 12 local objects.
To https://github.com/rabanialya/tjmodul5.2311104076.git
1a79494..d79718d main -> main

C:\Users\Lenovo\source\repos\WPL_ALYA_RABANI_2311104076_SE-07-02\05_Generics\tjmodul5.2311104076>
```