

TJ MODUL 8
RUNTIME CONFIGURATION DAN
INTERNATIONALIZATION



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PROGRAM STUDI S1 REKAYASA PERANGKAT LUNAK
TELKOM UNIVERSITY PURWOKERTO
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1. Melakukan first commit

```
D:\College\Semester 4\Konstruksi Perangkat Luna\KPL\08_Runtime_Configuration_dan_Internationalization\tjmodul8_231110404
6>git add .

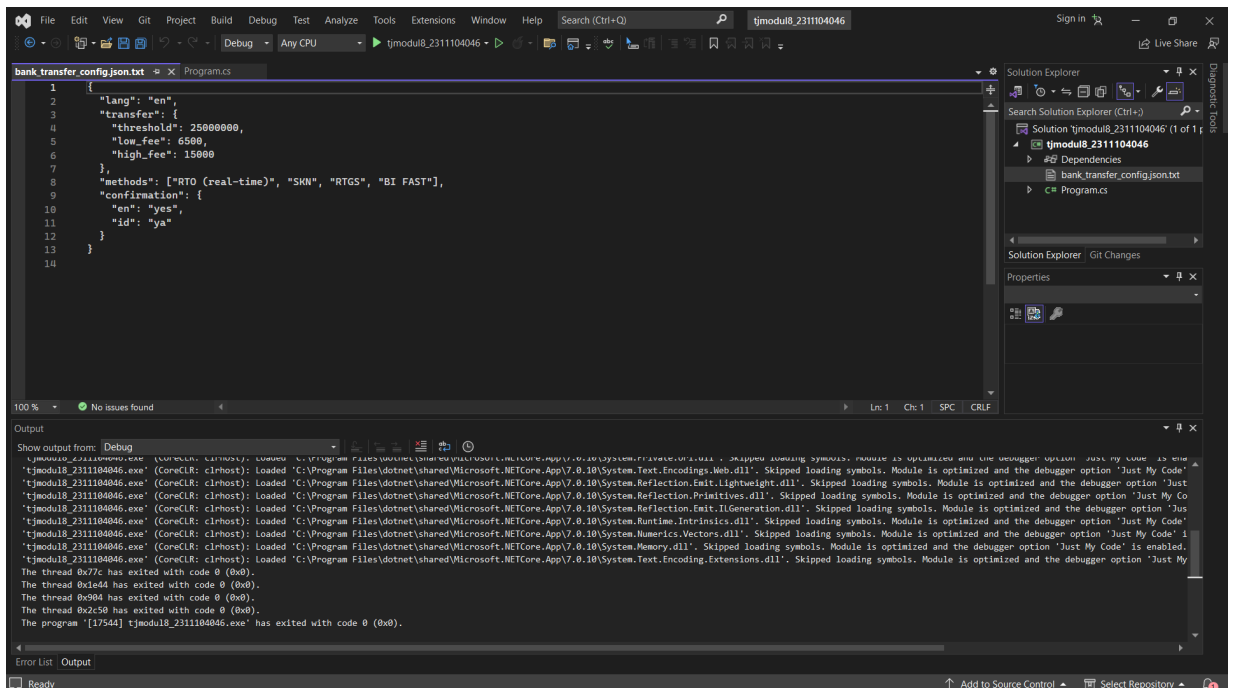
D:\College\Semester 4\Konstruksi Perangkat Luna\KPL\08_Runtime_Configuration_dan_Internationalization\tjmodul8_231110404
6>git commit -m "commit pertama"
[main 2497e16] commit pertama
3 files changed, 37 insertions(+)
create mode 100644 08_Runtime_Configuration_dan_Internationalization/tjmodul8_2311104046/tjmodul8_2311104046.sln
create mode 100644 08_Runtime_Configuration_dan_Internationalization/tjmodul8_2311104046/tjmodul8_2311104046/Program.cs
create mode 100644 08_Runtime_Configuration_dan_Internationalization/tjmodul8_2311104046/tjmodul8_2311104046/tjmodul8_2
311104046.csproj

D:\College\Semester 4\Konstruksi Perangkat Luna\KPL\08_Runtime_Configuration_dan_Internationalization\tjmodul8_231110404
6>git push origin main
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 4 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (8/8), 1.22 MiB/s | 1.22 MiB/s, done.
Total 8 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/zclimaxsp/KPL_DHIEMAS-TULUS-IKHSAN_2311104046_SE-07-02.git
41035a2..2497e16 main -> main

D:\College\Semester 4\Konstruksi Perangkat Luna\KPL\08_Runtime_Configuration_dan_Internationalization\tjmodul8_231110404
6>
```

2. Implementasi runtime configuration

Aplikasi ini mensimulasikan transfer bank dengan membaca konfigurasi dari file JSON. Pengguna memasukkan jumlah uang, lalu program menghitung biaya transfer berdasarkan batas nominal yang diatur. Metode transfer ditampilkan sesuai konfigurasi, dan transaksi dikonfirmasi dengan kata kunci. Jika sesuai, transfer berhasil; jika tidak, dibatalkan.



```
using System;
using System.Collections.Generic;
using System.IO;
using System.Text.Json;

class BankTransferConfig
{
    public string lang { get; set; }
    public Transfer transfer { get; set; }
    public List<string> methods { get; set; }
    public Confirmation confirmation { get; set; }

    public class Transfer
    {

```

```

        public int threshold { get; set; }
        public int low_fee { get; set; }
        public int high_fee { get; set; }
    }

    public class Confirmation
    {
        public string en { get; set; }
        public string id { get; set; }
    }

    public static BankTransferConfig LoadFromFile(string filePath)
    {
        if (!File.Exists(filePath))
        {
            var defaultConfig = new BankTransferConfig
            {
                lang = "en",
                transfer = new Transfer { threshold = 25000000, low_fee = 6500,
high_fee = 15000 },
                methods = new List<string> { "RTO (real-time)", "SKN", "RTGS", "BI
FAST" },
                confirmation = new Confirmation { en = "yes", id = "ya" }
            };
            File.WriteAllText(filePath, JsonSerializer.Serialize(defaultConfig, new
JsonSerializerOptions { WriteIndented = true }));
            return defaultConfig;
        }
        else
        {
            string json = File.ReadAllText(filePath);
            return JsonSerializer.Deserialize<BankTransferConfig>(json);
        }
    }
}

class Program
{
    static void Main()
    {
        string configPath = "bank_transfer_config.json";
        var config = BankTransferConfig.LoadFromFile(configPath);

        Console.WriteLine(config.lang == "en"
            ? "Please insert the amount of money to transfer:"
            : "Masukkan jumlah uang yang akan di-transfer:");

        int amount = int.Parse(Console.ReadLine());

        int fee = amount <= config.transfer.threshold
            ? config.transfer.low_fee
            : config.transfer.high_fee;

        int total = amount + fee;

        Console.WriteLine(config.lang == "en"
            ? $"Transfer fee = {fee}\nTotal amount = {total}"
            : $"Biaya transfer = {fee}\nTotal biaya = {total}");

        Console.WriteLine(config.lang == "en"
            ? "Select transfer method:"
            : "Pilih metode transfer:");

        for (int i = 0; i < config.methods.Count; i++)
        {
            Console.WriteLine($"{i + 1}. {config.methods[i]}");
        }

        Console.ReadLine(); // Simulasi input metode transfer

        string confirmKey = config.lang == "en"
            ? config.confirmation.en
            : config.confirmation.id;
    }
}

```

```

        Console.WriteLine(config.lang == "en"
            ? $"Please type \"{confirmKey}\" to confirm the transaction:"
            : $"Ketik \"{confirmKey}\" untuk mengkonfirmasi transaksi:");

        string inputConfirm = Console.ReadLine();

        if (inputConfirm.ToLower() == confirmKey.ToLower())
        {
            Console.WriteLine(config.lang == "en"
                ? "The transfer is completed"
                : "Proses transfer berhasil");
        }
        else
        {
            Console.WriteLine(config.lang == "en"
                ? "Transfer is cancelled"
                : "Transfer dibatalkan");
        }
    }
}

```

Output yang dihasilkan:

```

Please insert the amount of money to transfer:
1500000
Transfer fee = 6500
Total amount = 1506500
Select transfer method:
1. RTO (real-time)
2. SKN
3. RTGS
4. BI FAST
2
Please type "yes" to confirm the transaction:
yes
The transfer is completed

D:\College\Semester 4\Konstruksi Perangkat Lunak\KPL\08_Runtime_Configuration_dan_Internationalization\tjmodul8_2311104046\tjmodul8_2311104046\bin\Debug\net7.0\tjmodul8_2311104046.exe (process 17544) exited with code 0.
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 . . .

```

3. Melakukan commit

Melakukan git add, commit dan push ke github

```

D:\College\Semester 4\Konstruksi Perangkat Lunak\KPL\08_Runtime_Configuration_dan_Internationalization\tjmodul8_2311104046>git add .

D:\College\Semester 4\Konstruksi Perangkat Lunak\KPL\08_Runtime_Configuration_dan_Internationalization\tjmodul8_2311104046>git commit -m "aplikasi bank transfer dengan runtime configuration"
[main a53c896] aplikasi bank transfer dengan runtime configuration
 2 files changed, 118 insertions(+), 2 deletions(-)
 create mode 100644 08_Runtime_Configuration_dan_Internationalization/tjmodul8_2311104046/tjmodul8_2311104046/bank_transfer_config.json.txt

D:\College\Semester 4\Konstruksi Perangkat Lunak\KPL\08_Runtime_Configuration_dan_Internationalization\tjmodul8_2311104046>git push
Enumerating objects: 11, done.
Counting objects: 100% (11/11), done.
Delta compression using up to 4 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (7/7), 1.70 KiB | 1.70 MiB/s, done.
Total 7 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/zclimaxsp/KPL-DHIEMAS-TULUS-IKHSAN_2311104046_SE-07-02.git
 2497e16..a53c896  main -> main

D:\College\Semester 4\Konstruksi Perangkat Lunak\KPL\08_Runtime_Configuration_dan_Internationalization\tjmodul8_2311104046>

```