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Kelas:SE-07-02

Jurnal Modul 8

I.Link Github

https://github.com/faishalstwn/KPL_FaishalArifSetiawan_2311104066_SE_07_02

II.Output

```
Please insert the amount of money to transfer:
2000000
Transfer fee = 6500
Total amount = 2006500
Select transfer method:
1. RTO (real-time)
2. SKN
3. RTGS
4. BI FAST
4
Please type "yes" to confirm the transaction:
yes
The transfer is completed
```

```
Please insert the amount of money to transfer:
4000000
Transfer fee = 6500
Total amount = 4006500
Select transfer method:
1. RTO (real-time)
2. SKN
3. RTGS
4. BI FAST
1
Please type "yes" to confirm the transaction:
yes
The transfer is completed
```

```

Please insert the amount of money to transfer:
600000
Transfer fee = 6500
Total amount = 606500
Select transfer method:
1. RTO (real-time)
2. SKN
3. RTGS
4. BI FAST
3
Please type "yes" to confirm the transaction:
no
Transfer is cancelled

```

III.Source Code

Kelas BankTransferConfig

Kelas ini bertugas untuk membaca dan menyimpan konfigurasi runtime dari file JSON

```

public class BankTransferConfig
{
    public string lang { get; set; }

    public Transfer transfer { get; set; }

    public List<string> methods { get; set; }

    public Confirmation confirmation { get; set; }

    public static BankTransferConfig LoadConfig(string filePath)
    {
        if (!File.Exists(filePath))
        {
            // Default configuration
            return 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" }
            };
        }

        string jsonString = File.ReadAllText(filePath);
        return JsonSerializer.Deserialize<BankTransferConfig>(jsonString);
    }
}

2 references
public class Transfer
{
    2 references
    public int threshold { get; set; }
    2 references
    public int low_fee { get; set; }
    2 references
    public int high_fee { get; set; }
}

2 references
public class Confirmation
{
    public string en { get; set; }

    public string id { get; set; }
}

9 references
public string lang { get; set; }
4 references

```

Menyimpan bahasa aplikasi, nilainya bisa "en" (English) atau "id" (Bahasa Indonesia).

Digunakan untuk menentukan tampilan pesan di console.

```
4 references  
public Transfer transfer { get; set; }
```

Objek dari class Transfer, berisi informasi batas nominal dan biaya transfer.

```
3 references  
public List<string> methods { get; set; }  
5 references
```

Daftar string yang merepresentasikan metode transfer yang bisa dipilih user.

Ditampilkan dalam bentuk list di console (dengan numbering).

```
public Confirmation confirmation { get; set; }
```

Objek dari class Confirmation, berisi kata kunci konfirmasi berdasarkan bahasa.

```
1 reference  
public static BankTransferConfig LoadConfig(string filePath)  
{
```

- Method static (bisa dipanggil tanpa membuat objek terlebih dahulu).
- Mencoba membaca file konfigurasi JSON:
- Jika file tidak ada, method akan mengembalikan objek konfigurasi default langsung dari kode.
- Jika file ada, method akan membaca isinya, lalu mengubah JSON menjadi objek BankTransferConfig menggunakan System.Text.Json.JsonSerializer

Program.Cs

program utama dari aplikasi bank transfer

```

class Program
{
    0 references
    static void Main(string[] args)
    {
        string configPath = "bank_transfer_config.json";
        BankTransferConfig config = BankTransferConfig.LoadConfig(configPath);

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

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

        if (config.lang == "en")
        {
            Console.WriteLine("Transfer fee = " + fee);
            Console.WriteLine("Total amount = " + total);
        }
        else
        {
            Console.WriteLine("Biaya transfer = " + fee);
            Console.WriteLine("Total 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(); // method selection

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

        string confirmInput = Console.ReadLine();
        bool confirmed = (config.lang == "en" && confirmInput == config.confirmation.en) ||
            (config.lang == "id" && confirmInput == config.confirmation.id);

        if (confirmed)
        {
            Console.WriteLine(config.lang == "en" ? "The transfer is completed" : "Proses transfer berhasil");
        }
        else
    }
}

```

```

{
    string configPath = "bank_transfer_config.json";
    BankTransferConfig config = BankTransferConfig.LoadConfig(configPath);
}

```

- **configPath**: Lokasi file konfigurasi JSON.
- **LoadConfig()**: Memanggil method dari class BankTransferConfig untuk memuat konfigurasi runtime dari file JSON (atau menggunakan default jika file tidak ada).

```

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

```

Meminta user mengetik jumlah uang dan membaca input dari console.

```

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

```

- Jika nominal \leq threshold \rightarrow pakai low_fee.
- Jika nominal $>$ threshold \rightarrow pakai high_fee.
- total = jumlah transfer + biaya.

```

if (config.lang == "en")
{
    Console.WriteLine("Transfer fee = " + fee);
    Console.WriteLine("Total amount = " + total);
}
else
{
    Console.WriteLine("Biaya transfer = " + fee);
    Console.WriteLine("Total biaya = " + total);
}

```

Menampilkan biaya dan total sesuai bahasa yang dipilih.

```

}
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]}");
}

```

Menampilkan daftar metode transfer (methods) dari konfigurasi dalam bentuk list bernomor.

```

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

string confirmInput = Console.ReadLine();
bool confirmed = (config.lang == "en" && confirmInput == config.confirmation.en) ||
    (config.lang == "id" && confirmInput == config.confirmation.id);

```

Menampilkan prompt konfirmasi sesuai bahasa.

Menerima input konfirmasi dari user.