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- i. Link GitHub: https://github.com/alxfarizi/KPL_AHMAD-AL-FARIZI_2311104054_S1SE-07-02/tree/main/08_Runtime_Configuration_dan_Internationalization/Jurnal/modul8_2311104054/modul8_2311104054

- ii. Hasil Running:

```
Please insert the amount of money to transfer:
20000000
Transfer fee = 6500
Total amount = 20006500
Select transfer method:
1. RTG (real-time)
2. SKN
3. RTGS
4. BI FAST
1
Please type "yes" to confirm the transaction:
yes
The transfer is completed
```

- iii. Penjelasan Syntax:

Kelas BankTransferConfig

Kelas **BankTransferConfig** digunakan untuk mengelola konfigurasi aplikasi transfer bank, termasuk bahasa (lang), pengaturan biaya transfer (TransferConfig), metode transfer (methods), dan konfirmasi transaksi (ConfirmationConfig). Kelas ini dapat memuat dan menyimpan konfigurasi dari atau ke file JSON melalui metode LoadConfig dan SaveConfig.

```

1  using System;
2  using System.IO;
3  using System.Text.Json;
4  using System.Collections.Generic;
5
6  namespace modul8_2311104054
7  {
8      public class BankTransferConfig
9      {
10         public string lang { get; set; } = "en";
11         public TransferConfig transfer { get; set; } = new TransferConfig();
12         public List<string> methods { get; set; } = new List<string> { "RTIO (real-time)", "SKN", "RTGS", "BI FAST" };
13         public ConfirmationConfig confirmation { get; set; } = new ConfirmationConfig();
14
15         public class TransferConfig
16         {
17             public int threshold { get; set; } = 25000000;
18             public int low_fee { get; set; } = 6500;
19             public int high_fee { get; set; } = 15000;
20         }
21
22         public class ConfirmationConfig
23         {
24             public string en { get; set; } = "yes";
25             public string id { get; set; } = "ya";
26         }
27
28         public static BankTransferConfig LoadConfig(string filePath)
29         {
30             try
31             {
32                 if (File.Exists(filePath))
33                 {
34                     string json = File.ReadAllText(filePath);
35                     return JsonSerializer.Deserialize<BankTransferConfig>(json);
36                 }
37                 else
38                 {
39                     var defaultConfig = new BankTransferConfig();
40                     SaveConfig(filePath, defaultConfig);
41                     return defaultConfig;
42                 }
43             }
44             catch (Exception)
45             {
46                 return new BankTransferConfig();
47             }
48         }
49
50         public static void SaveConfig(string filePath, BankTransferConfig config)
51         {
52             try
53             {
54                 var options = new JsonSerializerOptions { WriteIndented = true };
55                 string json = JsonSerializer.Serialize(config, options);
56                 File.WriteAllText(filePath, json);
57             }
58             catch (Exception)
59             {
60             }
61         }
62     }

```

Kelas Program

Kelas Program adalah titik eksekusi utama yang memanfaatkan BankTransferConfig untuk menjalankan logika aplikasi. Program ini meminta input pengguna untuk jumlah transfer, metode transfer, dan konfirmasi, lalu menghitung biaya serta total transfer berdasarkan konfigurasi yang telah ditentukan. Program mendukung bahasa Inggris dan Indonesia.

```

1  using modul8_2311104054;
2
3  class Program
4  {
5      static void Main(string[] args)
6      {
7          string configFilePath = "bank_transfer_config.json";
8          var config = BankTransferConfig.LoadConfig(configFilePath);
9
10         Console.WriteLine(config.lang == "id" ?
11             "Masukkan jumlah uang yang akan di-transfer:" :
12             "Please insert the amount of money to transfer:");
13
14         if (!int.TryParse(Console.ReadLine(), out int transferAmount))
15         {
16             Console.WriteLine(config.lang == "id" ? "Input tidak valid" : "Invalid input");
17             return;
18         }
19
20         int fee = transferAmount <= config.transfer.threshold ?
21             config.transfer.low_fee : config.transfer.high_fee;
22         int totalAmount = transferAmount + fee;
23
24         Console.WriteLine(config.lang == "id" ?
25             $"Biaya transfer = {fee}" :
26             $"Transfer fee = {fee}");
27         Console.WriteLine(config.lang == "id" ?
28             $"Total biaya = {totalAmount}" :
29             $"Total amount = {totalAmount}");
30
31         Console.WriteLine(config.lang == "id" ?
32             "Pilih metode transfer:" :
33             "Select transfer method:");
34
35         for (int i = 0; i < config.methods.Count; i++)
36         {
37             Console.WriteLine($"{i + 1}. {config.methods[i]}");
38         }
39
40         if (!int.TryParse(Console.ReadLine(), out int methodIndex) ||
41             methodIndex < 1 || methodIndex > config.methods.Count)
42         {
43             Console.WriteLine(config.lang == "id" ? "Input tidak valid" : "Invalid input");
44             return;
45         }
46
47         string confirmationWord = config.lang == "id" ?
48             config.confirmation.id : config.confirmation.en;
49         Console.WriteLine(config.lang == "id" ?
50             $"Ketik \"{confirmationWord}\" untuk mengkonfirmasi transaksi:" :
51             $"Please type \"{confirmationWord}\" to confirm the transaction:");
52
53         string userInput = Console.ReadLine();
54         if (userInput == confirmationWord)
55         {
56             Console.WriteLine(config.lang == "id" ?
57                 "Proses transfer berhasil" :
58                 "The transfer is completed");
59         }
60         else
61         {
62             Console.WriteLine(config.lang == "id" ?
63                 "Transfer dibatalkan" :
64                 "Transfer is cancelled");
65         }
66     }

```