Jurnal Modul 8
Konstruksi Perangkat Lunak
PRODI REKAYASA PERANGKAT LUNAK

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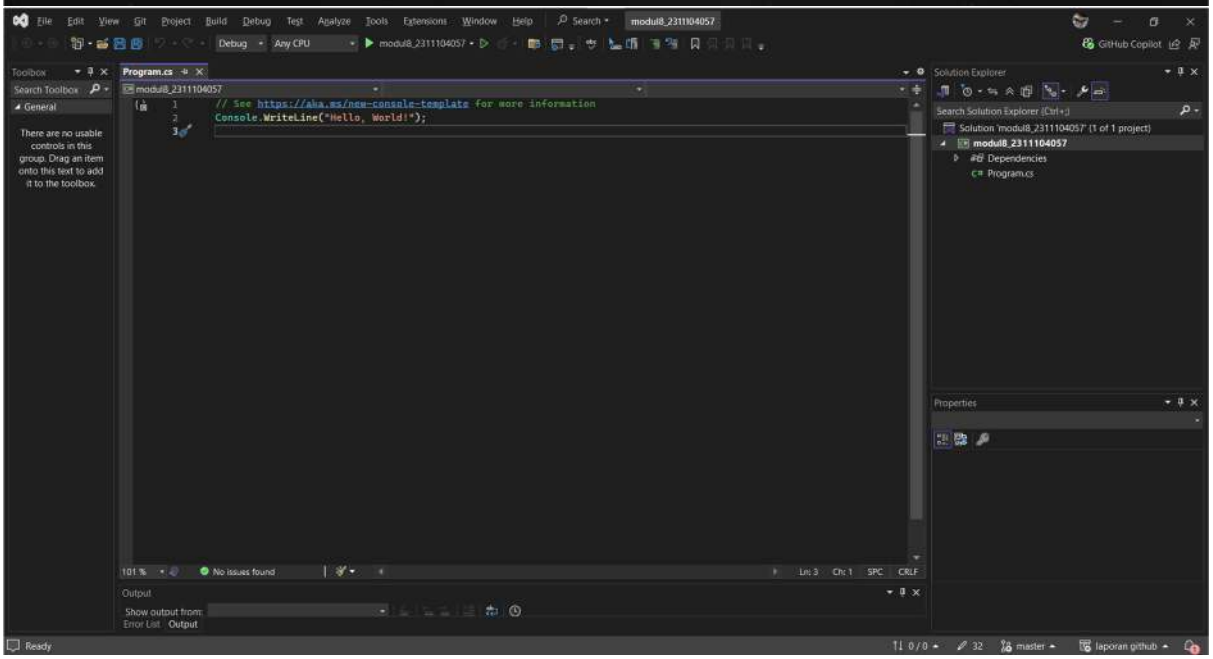
PURWOKERTO

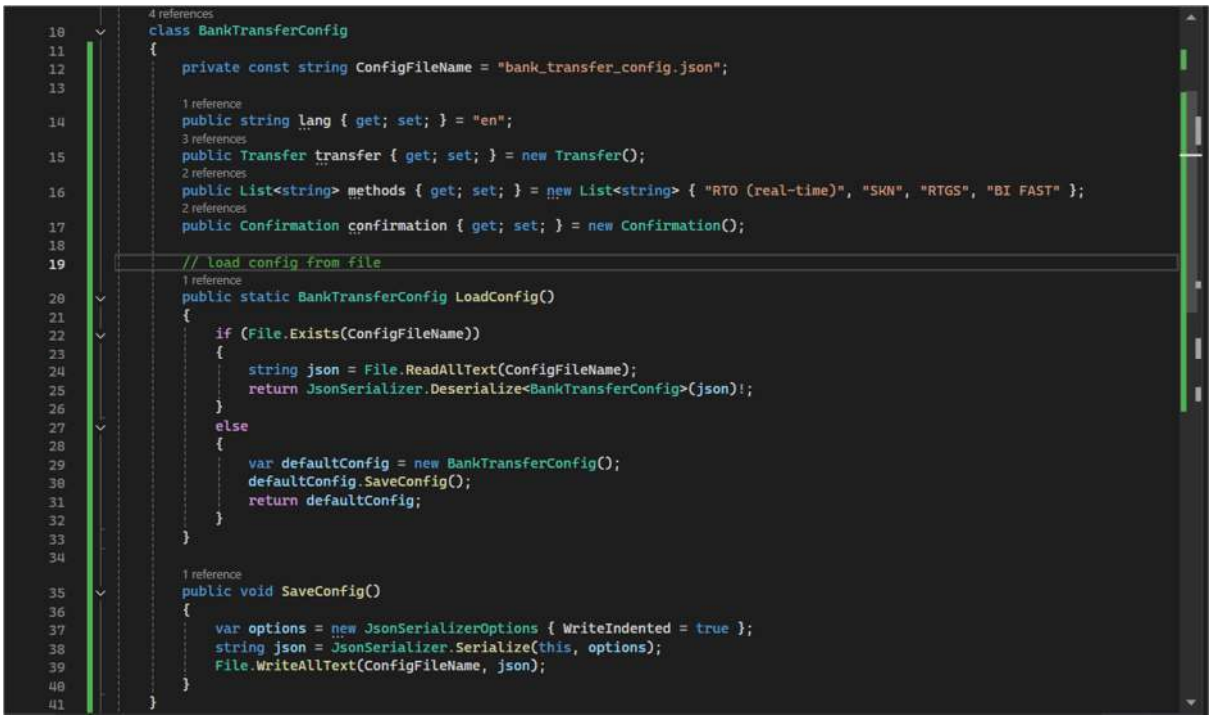
Jurnal Modul 8

1. Initialize project dan push

```
D:\KULIAH\SEMESTER 4\KPL Praktikum\laporan github git:(master)±5 (0.116s)
git add "08_Runtime_Configuration_dan_Internalization/"


D:\KULIAH\SEMESTER 4\KPL Praktikum\laporan github git:(master)±7 (0.192s)
git commit -m "initiate modul8"
[master 44ba30b] initiate modul8
 3 files changed, 37 insertions(+)
 create mode 100644 08_Runtime_Configuration_dan_Internalization/jurnal/modul8_2311104057/modul8_2311104057.sln
 create mode 100644 08_Runtime_Configuration_dan_Internalization/jurnal/modul8_2311104057/modul8_2311104057/Program.cs
 create mode 100644 08_Runtime_Configuration_dan_Internalization/jurnal/modul8_2311104057/modul8_2311104057/modul8_2311104057.csproj


D:\KULIAH\SEMESTER 4\KPL Praktikum\laporan github git:(master)±4 (3.656s)
git push
Enumerating objects: 11, done.
Counting objects: 100% (11/11), done.
Delta compression using up to 8 threads
Compressing objects: 100% (8/8), done.
Writing objects: 100% (9/9), 1.25 KiB | 640.00 KiB/s, done.
Total 9 (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/reyneratira/KPL_REYNER-ATIRA-PRASETYO_2311104057_S1SE-07-02.git
   6dae639..44ba30b  master -> master
```



2. BankTransferConfig.cs

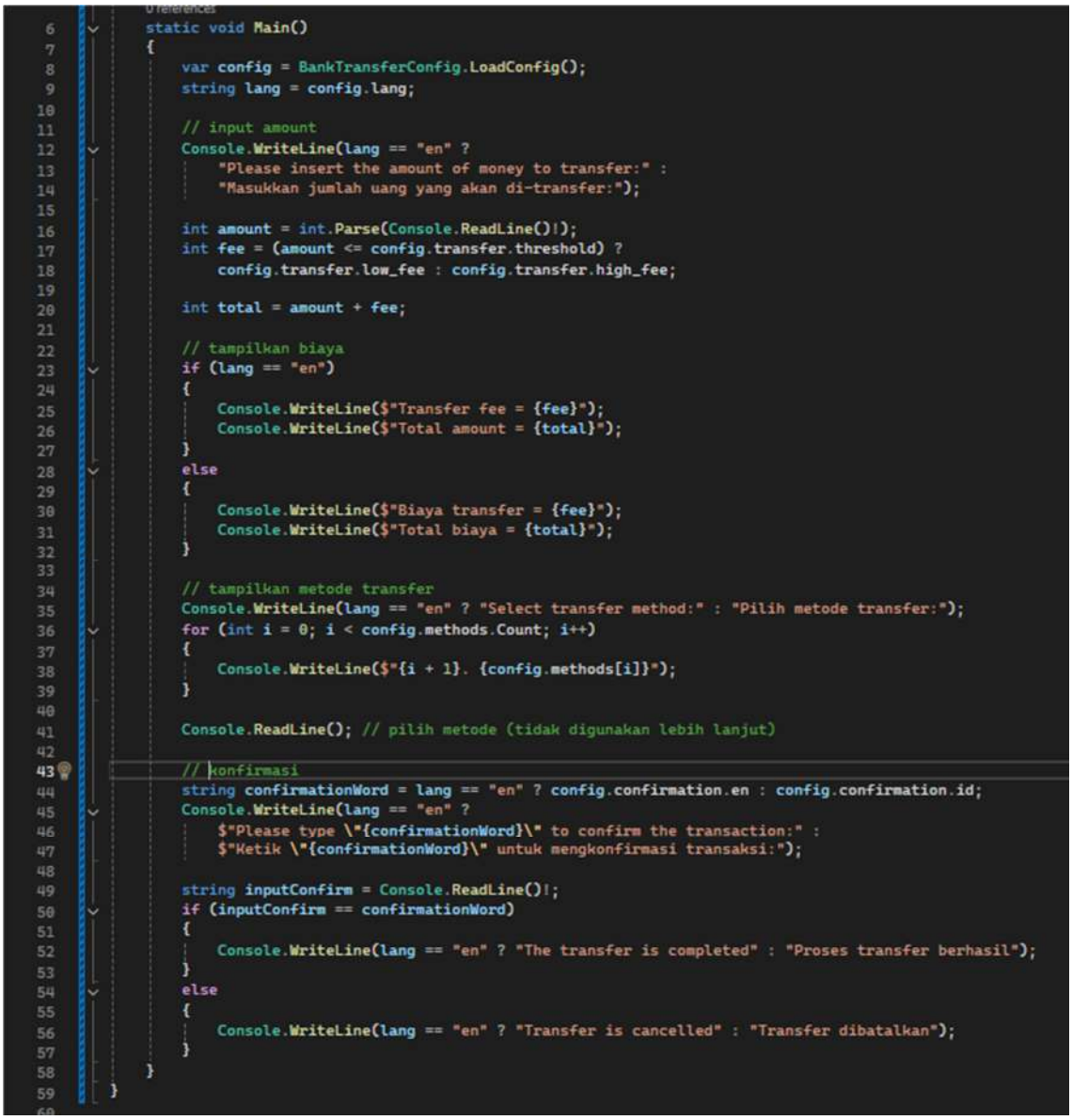


```
4 references
class BankTransferConfig
{
    private const string ConfigFileName = "bank_transfer_config.json";

    1 reference
    public string lang { get; set; } = "en";
    3 references
    public Transfer transfer { get; set; } = new Transfer();
    2 references
    public List<string> methods { get; set; } = new List<string> { "RTO (real-time)", "SKN", "RTGS", "BI FAST" };
    2 references
    public Confirmation confirmation { get; set; } = new Confirmation();

    // load config from file
    1 reference
    public static BankTransferConfig LoadConfig()
    {
        if (File.Exists(ConfigFileName))
        {
            string json = File.ReadAllText(ConfigFileName);
            return JsonSerializer.Deserialize<BankTransferConfig>(json)!;
        }
        else
        {
            var defaultConfig = new BankTransferConfig();
            defaultConfig.SaveConfig();
            return defaultConfig;
        }
    }

    1 reference
    public void SaveConfig()
    {
        var options = new JsonSerializerOptions { WriteIndented = true };
        string json = JsonSerializer.Serialize(this, options);
        File.WriteAllText(ConfigFileName, json);
    }
}
```

public static BankTransferConfig LoadConfig() : Membaca file bank_transfer_config.json jika ada. Jika tidak ada, membuat file dengan konfigurasi default

public void SaveConfig() : Menyimpan objek konfigurasi ke file JSON dengan format rapi (Indented)

3. main di Program.cs



```
0 references
static void Main()
{
    var config = BankTransferConfig.LoadConfig();
    string lang = config.lang;

    // input amount
    Console.WriteLine(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;

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

    // tampilkan metode transfer
    Console.WriteLine(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(); // pilih metode (tidak digunakan lebih lanjut)

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

    string inputConfirm = Console.ReadLine()!;
    if (inputConfirm == confirmationWord)
    {
        Console.WriteLine(lang == "en" ? "The transfer is completed" : "Proses transfer berhasil");
    }
    else
    {
        Console.WriteLine(lang == "en" ? "Transfer is cancelled" : "Transfer dibatalkan");
    }
}
}
```

Melakukan simulasi transfer uang berdasarkan: Jumlah uang, Bahasa (Indonesia/Inggris), Biaya transfer (berdasarkan ambang batas), dan Konfirmasi akhir dari pengguna

Muat Konfigurasi : var config = BankTransferConfig.LoadConfig(); untuk mengambil konfigurasi dari file bank_transfer_config.json.

string lang = config.lang; : Menyesuaikan teks berdasarkan en (Inggris) atau id (Indonesia).

Input Jumlah Uang : int amount = int.Parse(Console.ReadLine()!);

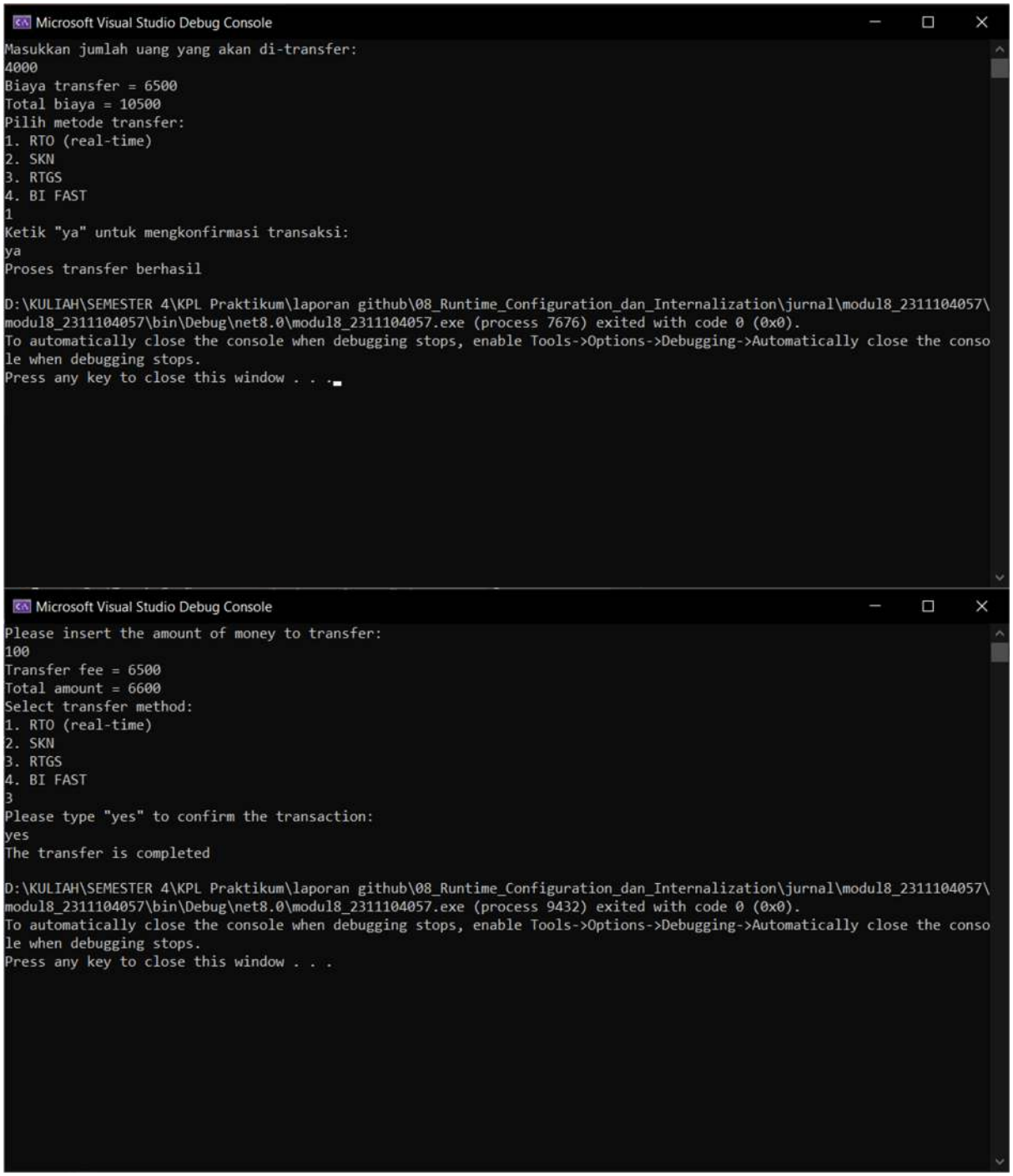
Hitung Biaya Transfer :

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

Pilih Metode Transfer :

```
for (int i = 0; i < config.methods.Count; i++)

{

    Console.WriteLine($"{i + 1}. {config.methods[i]}");

}
```

string confirmationWord = (lang == "en") ? config.confirmation.en : config.confirmation.id; : Minta pengguna mengetik “yes” / “ya” sebagai konfirmasi.



4. Push

D:\KULIAH\SEMESTER 4\KPL Praktikum\laporan github git:(master)±4 (0.096s)
git add "08_Runtime_Configuration_dan_Internalization/"
D:\KULIAH\SEMESTER 4\KPL Praktikum\laporan github git:(master)±8 (0.152s)
git commit -m "aplikasi bank transfer dengan runtime configuration"
[master aba3383] aplikasi bank transfer dengan runtime configuration
4 files changed, 133 insertions(+), 2 deletions(-)
create mode 100644 08_Runtime_Configuration_dan_Internalization/jurnal/modul8_2311104057/modul8_2311104057/BankTransferConfig.cs
create mode 100644 08_Runtime_Configuration_dan_Internalization/jurnal/modul8_2311104057/modul8_2311104057/bank_transfer_config.json
D:\KULIAH\SEMESTER 4\KPL Praktikum\laporan github git:(master)±4 (2.337s)
git push
Enumerating objects: 16, done.
Counting objects: 100% (16/16), done.
Delta compression using up to 8 threads
Compressing objects: 100% (9/9), done.
Writing objects: 100% (10/10), 2.20 KiB | 1.10 MiB/s, done.
Total 10 (delta 3), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (3/3), completed with 3 local objects.
To https://github.com/reyneratira/KPL_REYNER-ATIRA-PRASETYO_2311104057_S1SE-07-02.git
44ba30b..aba3383 master -> master