

SE0701_2311104003_MARTRYATUS SOFIA

TP MODUL 5

Link Github Repository :

https://github.com/MartryatusSofia/KPL_Martryatus-Sofia_2311104003_SE0701/tree/master/08_RuntimeConfiguration_Internationalization/JM

Hasil Output :

```
Please insert the amount of money to transfer: 100000
Transfer fee = 6500
Total amount = 106500
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
```

Penjelasan Codingan

```
{
  "lang": "en",
  "transfer": {
    "threshold": 25000000,
    "low_fee": 6500,
    "high_fee": 15000
  },
  "methods": ["RTO (real-time)", "SKN", "RTGS", "BI FAST"],
  "confirmation": {
    "en": "yes",
    "id": "ya"
  }
}
```

File diatas merupakan konfigurasi utama program. Berisi: Bahasa tampilan (lang), aturan biaya transfer (threshold, low_fee, high_fee), metode transfer, dan teks konfirmasi berdasarkan bahasa (confirmation). Nilai default digunakan jika file ini belum tersedia saat program dijalankan.

```
import fs from 'fs';

export default class BankTransferConfig {
  constructor() {
    this.configPath = './bank_transfer_config.json';

    this.defaultConfig = {
      lang: 'en',
      transfer: {
        threshold: 25000000,
        low_fee: 6500,
        high_fee: 15000
      },
      methods: ['RTO (real-time)', 'SKN', 'RTGS', 'BI FAST'],
      confirmation: {
        en: 'yes',
        id: 'ya'
      }
    };

    this.config = this.loadConfig();
  }
}
```

```
    this.config = this.loadConfig();
  }

  loadConfig() {
    try {
      if (fs.existsSync(this.configPath)) {
        const data = fs.readFileSync(this.configPath);
        return JSON.parse(data);
      } else {
        return this.defaultConfig;
      }
    } catch (err) {
      console.error("Gagal membaca file konfigurasi:", err);
      return this.defaultConfig;
    }
  }
}
```

Kelas untuk membaca dan mengelola file konfigurasi bank_transfer_config.json. Method loadConfig() → Mengecek keberadaan file JSON, membaca isinya, atau menggunakan default

config jika file belum ada atau gagal dibaca. Hasil akhirnya menyediakan objek config berisi pengaturan runtime untuk digunakan dalam program utama.

Index.js

```
import readline from 'readline';
import BankTransferConfig from './BankTransferConfig.js';

const config = new BankTransferConfig().config;
const rl = readline.createInterface({
  input: process.stdin,
  output: process.stdout
});

const promptText = config.lang === "id"
  ? "Masukkan jumlah uang yang akan di-transfer: "
  : "Please insert the amount of money to transfer: ";

rl.question(promptText, (input) => {
  const amount = parseInt(input);
  const fee = amount <= config.transfer.threshold
    ? config.transfer.low_fee
    : config.transfer.high_fee;

  const total = amount + fee;
```

```

if (config.lang === 'id') {
  console.log(`Biaya transfer = ${fee}`);
  console.log(`Total biaya = ${total}`);
  console.log("Pilih metode transfer:");
} else {
  console.log(`Transfer fee = ${fee}`);
  console.log(`Total amount = ${total}`);
  console.log("Select transfer method:");
}

config.methods.forEach((method, index) => {
  console.log(`${index + 1}. ${method}`);
});

rl.question('', () => {
  const confirmPrompt = config.lang === 'id'
    ? `Ketik "${config.confirmation.id}" untuk mengkonfirmasi transaksi: `
    : `Please type "${config.confirmation.en}" to confirm the transaction: `;

  rl.question(confirmPrompt, (confirmInput) => {
    const isConfirmed = config.lang === 'id'
      ? confirmInput.toLowerCase() === config.confirmation.id
      : confirmInput.toLowerCase() === config.confirmation.en;

    if (isConfirmed) {
      console.log(config.lang === 'id' ? 'Proses transfer berhasil' : 'The transfer is completed');
    } else {
      console.log(config.lang === 'id' ? 'Transfer dibatalkan' : 'Transfer is cancelled');
    }

    rl.close();
  });
});

```

Code diatas mengimplementasikan logika program transfer uang berdasarkan konfigurasi runtime.

Alur programnya yaitu :.

1. Menampilkan prompt input berdasarkan bahasa (en / id).
2. Menghitung biaya transfer berdasarkan nilai threshold, low_fee, dan high_fee.
3. Menampilkan daftar metode transfer.
4. Meminta konfirmasi pengguna dengan keyword dari konfigurasi (yes / ya).
5. Menampilkan hasil akhir: transfer berhasil atau dibatalkan.