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## TP Modul 8

### 1. Implementasi Runtime Configuration

#### Bank\_transfer\_config.json

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

#### Bank\_transfer.js

```
const fs = require('fs');

class BankTransferConfig {
  constructor() {
    const 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"
      }
    };
  }
};
```

```

    try {
      const data = fs.readFileSync('./bank_transfer_config.json', 'utf-8');
      this.config = JSON.parse(data);
    } catch (error) {
      this.config = defaultConfig;
    }
  }

  getConfig() {
    return this.config;
  }
}

```

```

module.exports = BankTransferConfig;

```

### **main.js**

```

const readline = require('readline');
const BankTransferConfig = require('./bank_transfer');

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

const configLoader = new BankTransferConfig();
const config = configLoader.getConfig();

const lang = config.lang;
const threshold = config.transfer.threshold;
const lowFee = config.transfer.low_fee;
const highFee = config.transfer.high_fee;
const methods = config.methods;
const confirmation = config.confirmation;

const askAmount = lang === "en"
  ? "Please insert the amount of money to transfer: "
  : "Masukkan jumlah uang yang akan di-transfer: ";

rl.question(askAmount, (amountInput) => {
  const amount = parseInt(amountInput);
  const fee = amount <= threshold ? lowFee : highFee;

```

```

const total = amount + fee;

if (lang === "en") {
  console.log(`Transfer fee = ${fee}`);
  console.log(`Total amount = ${total}`);
  console.log(`\nSelect transfer method:`);
} else {
  console.log(`Biaya transfer = ${fee}`);
  console.log(`Total biaya = ${total}`);
  console.log(`\nPilih metode transfer:`);
}

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

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

  rl.question(confirmPrompt, (confirmInput) => {
    const validConfirm = lang === "en" ? confirmation.en : confirmation.id;
    if (confirmInput.trim().toLowerCase() === validConfirm.toLowerCase()) {
      console.log(lang === "en" ? "The transfer is completed" : "Proses transfer berhasil");
    } else {
      console.log(lang === "en" ? "Transfer is cancelled" : "Transfer dibatalkan");
    }
    rl.close();
  });
});
});

```

### Output :

```
PS C:\KPL_M.Faris_2311104017_SE-07-01\08\TP> node .\main.js
Masukkan jumlah uang yang akan di-transfer: 100000
Biaya transfer = 6500
Total biaya = 106500

Pilih metode transfer:
1. RTO (real-time)
2. SKN
3. RTGS
4. BI FAST

> 1
Ketik "ya" untuk mengkonfirmasi transaksi: ya
Proses transfer berhasil
PS C:\KPL_M.Faris_2311104017_SE-07-01\08\TP> node .\main.js
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

> 2
Please type "yes" to confirm the transaction: yes
The transfer is completed
PS C:\KPL_M.Faris_2311104017_SE-07-01\08\TP>
```

### Penjelasan :

Kode diatas mengimplementasi runtime configuration menggunakan file bank\_transfer\_config.json untuk mengatur bahasa, batas biaya transfer, metode transfer, dan konfirmasi transaksi. File tersebut diproses melalui class BankTransferConfig, yang membaca konfigurasi atau menggunakan nilai default jika file tidak ditemukan. Program utama akan meminta input jumlah uang yang akan ditransfer, menghitung biaya berdasarkan ambang batas (threshold), lalu menampilkan total biaya serta daftar metode transfer. Setelah pengguna memilih metode, program meminta konfirmasi dalam bahasa yang sesuai (id atau en) sebelum menyelesaikan atau membatalkan transaksi.