JAWABAN TES FORMATIF 3

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10. C

SOAL ESSAI

1. Typescript Asyncronus

```typescript
import { promises as fs } from 'fs';
import { join } from 'path';

async function readFileAsync(filePath: string): Promise<void> {
  try {
    const data = await fs.readFile(filePath, 'utf-8');
    console.log(data);
  } catch (error) {
    console.error('Error reading file:', error);
  }
}

// Gunakan __dirname untuk mendapatkan direktori saat ini dan kembali satu level ke direktori src
const filePath = join(__dirname, '..', 'src', 'example.txt');
readFileAsync(filePath);
```

C: > Users > hp > typescript-file-reader > src > ≡ example.txt

```
echo "Ini adalah contoh isi file yang akan dibaca secara asinkron oleh program TypeScript."
```

```
C: > Users > hp > typescript-file-reader > {} package.json > {} scripts
  1  ~ {
  2        "name": "typescript-file-reader",
  3        "version": "1.0.0",
  4        "main": "index.js",
           ▷ Debug
  5  ~     "scripts": {
  6            "build": "tsc && cp src/example.txt dist/",
  7            "start": "node dist/index.js"
  8        },
  9        "keywords": [],
 10        "author": "",
 11        "license": "ISC",
 12        "description": "",
 13  ~     "devDependencies": {
 14            "@types/node": "^20.12.12",
 15            "typescript": "^5.4.5"
 16        }
 17    }
 18
```

output

```
C:\Users\hp\typescript-file-reader>npm start

> typescript-file-reader@1.0.0 start
> node dist/index.js

echo "Ini adalah contoh isi file yang akan dibaca secara asinkron oleh program TypeScript." >


C:\Users\hp\typescript-file-reader>_
```

2. RESTful API

```
C: > Users > hp > readfile-api > {} package.json > ...
  1    {
  2        "name": "readfile-api",
  3        "version": "1.0.0",
  4        "main": "index.js",
           ▷ Debug
  5        "scripts": {
  6            "start": "ts-node src/server.ts"
  7        },
  8        "keywords": [],
  9        "author": "",
 10        "license": "ISC",
 11        "dependencies": {
 12            "@types/express": "^4.17.21",
 13            "@types/node": "^20.12.12",
 14            "body-parser": "^1.20.2",
 15            "express": "^4.19.2",
 16            "ts-node": "^10.9.2",
 17            "typescript": "^5.4.5"
 18        },
 19        "description": ""
```

```
C: > Users > hp > readfile-api > src > TS server.ts > ...
  1    import express from 'express';
  2    import bodyParser from 'body-parser';
  3    import fs from 'fs/promises';
  4    import path from 'path';
  5
  6    const app = express();
  7    const port = 3000;
  8
  9    app.use(bodyParser.json());
 10
 11    // Endpoint untuk membaca dan menampilkan file secara asinkron
 12    app.get('/readfile', async (req, res) => {
 13        try {
 14            const filePath = path.join(__dirname, 'data.txt'); // Pastikan fi
 15            const data = await fs.readFile(filePath, 'utf-8');
 16            res.send(data);
 17        } catch (error) {
 18            res.status(500).send({ error: 'Error reading file' });
 19        }
 20    });
 21
 22    app.listen(port, () => {
 23        console.log(`Server is running on http://localhost:${port}`);
 24    });
 25    |
```

```
C: > Users > hp > readfile-api > src >  ≡ data.txt
  1      Hallo nama saya Yati Sumiati
  2
```
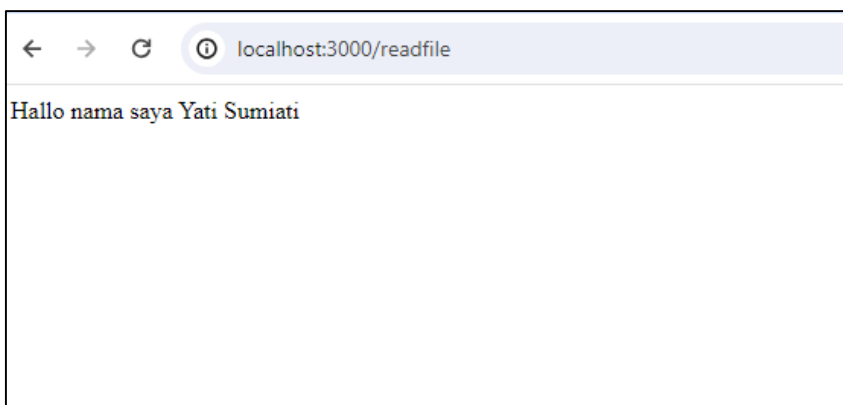
Output :

```
C:\Users\hp\readfile-api>npm start

> readfile-api@1.0.0 start
> ts-node src/server.ts

Server is running on http://localhost:3000
```

```
←   →   C    ⓘ  localhost:3000/readfile

Hallo nama saya Yati Sumiati
```