Implementing REST Services

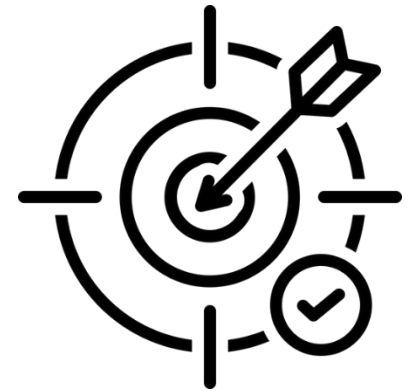**Web Programming and Testing**

Mario Simaremare, S.Kom., M.Sc.
Program Studi Sarjana Sistem Informasi
Institut Teknologi Del

Objectives

- The objective of this session is the following:
  - The students are able to develop REST-based services. On this session, we focus on implementing API design.

Outlines

1. Case Study.
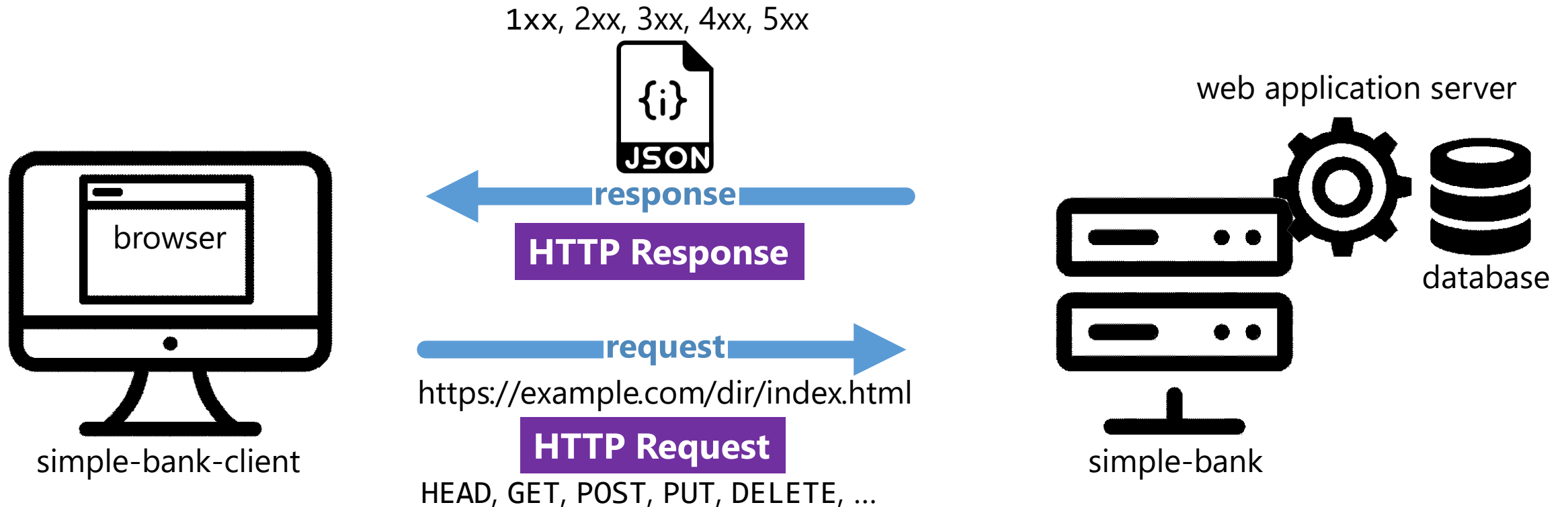2. Limitation.
3. Demo.

Case Study

Service Provider: Simple Bank

- Simple Bank exposes some APIs:
  - To see the detail of a specific account ;
  - To issue a transaction;
  - To see the detail of a specific transaction;
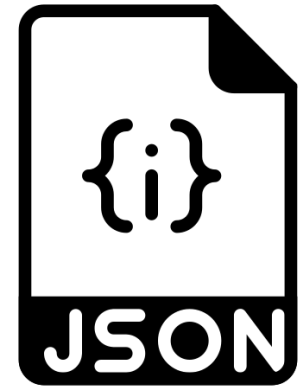 - To retrieve all transactions related to a customer;

See https://github.com/itdel-ppw/simple-bank

Request-Response Cycle

1xx, 2xx, 3xx, 4xx, 5xx

web application server

browser

response

HTTP Response

database

simple-bank-client

request

https://example.com/dir/index.html

HTTP Request

HEAD, GET, POST, PUT, DELETE, …

simple-bank

Limitations

Limitations

- The application was developed on top of Lumen, a PHP-based framework.

- The client (service consumer) was developed on top of Guzzle HTTP client.
  - See

See https://github.com/itdel-ppw/simple-bank-client

Search or jump to...   /   Pull requests   Issues   Marketplace   Explore

itdel-ppw / **simple-bank**

Unwatch ▾ | 1   ☆ Star | 0   ⑂ Fork | 0

<> Code   ⊘ Issues   ⏋⎿ Pull requests   ▷ Actions   ▦ Projects   ▭ Wiki   ⊘ Security   ⎘ Insights   ⚙ Settings

ᛦ master ▾   ᛦ 1 branch   ⬚ 0 tags

Go to file   Add file ▾   ⬇ Code ▾

simaremare Remove some initial data   9ddd24f 2 hours ago   ⟳ 2 commits

📁 SoapUI	Add the application components	3 hours ago
📁 app	Add the application components	3 hours ago
📁 bootstrap	Add the application components	3 hours ago
📁 database	Remove some initial data	2 hours ago
📁 docs	Add the application components	3 hours ago
📁 public	Add the application components	3 hours ago
📁 resources/views	Add the application components	3 hours ago
📁 routes	Add the application components	3 hours ago
📁 storage	Add the application components	3 hours ago

About

The base project for REST API development and testing.

📖 Readme

Releases

No releases published
Create a new release

Packages

No packages published
Publish your first package

Languages

.gitignore	Add the basic client	2 hours ago
README.md	Add the basic client	2 hours ago
bank-client.php	Add more action	2 hours ago
composer.json	Add the basic client	2 hours ago
composer.lock	Add the basic client	2 hours ago

📖 Readme

Releases

No releases published
Create a new release

DME.md ✏️

Simple Bank Client

A simple client based on Guzzle HTTP Client for https://github.com/itdel-ppw/simple-bank.

Packages

No packages published
Publish your first package

nstallation

etelah meng-*clone* repositori ini, silakan untuk meng-*install* semua *dependency* dengan menjalankan perintah erikut ini pada *command line*
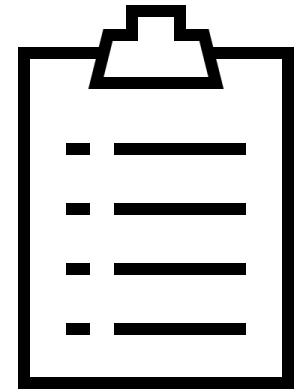
Languages

● PHP 100.0%

```
composer install
```

To-dos

1. Implement your API design.
2. Next time we will discuss about testing methods and API testing.

Thank you