



SEKOLAH TINGGI MANAJEMEN INFORMATIKA DAN KOMPUTER  
BANI SALEH

UJIAN AKHIR SEMESTER GANJIL  
TAHUN AKADEMIK 2020/2021

Mata Kuliah	:	Pemrograman Web2	No. Absen	:	
Prog. Studi/Kelas	:	S1/TI/6/A/B/MALAM	Nama Mahasiswa	:	
Hari & Tanggal	:	Rabu, 21 April 2021	NPM	:	
Nama Dosen	:	Muhamad Nur, M.Kom	Tanda Tangan	:	
W a k t u	:	120 Menit	Sifat Ujian	:	Buka Buku
Tanggal Verifikasi	:		Diverifikasi Oleh	:	

*Bismillahirrahmaanirrohiim*

I. Jawablah pertanyaan ini dengan singkat dan jelas!

1. Buatlah sebuah microservices dengan framework Lumen dan database Mysql untuk menampilkan resource dari aplikasi Northwind.
2. Buat endpoint untuk resource Orders dengan result sebagai berikut:

- a. Menampilkan data orders berdasarkan page dan pageSize

[GET] api/v1/orders?page=10&pageSize=10

```
localhost:8000/api/v1/orders?page=10&pageSize=5
{
  "data": [
    {
      "OrderID": 10293,
      "CustomerID": "TORTU",
      "EmployeeID": 1,
      "OrderDate": "1996-08-29 00:00:00",
      "RequiredDate": "1996-09-26 00:00:00",
      "ShippedDate": "1996-09-11 00:00:00",
      "ShipVia": 3,
      "Freight": 21.1800,
      "ShipName": "Tortuga Restaurante",
      "ShipAddress": "Avda. Azteca 123",
      "ShipCity": "Mexico D.F.",
      "ShipRegion": null,
      "ShipPostalCode": "5033",
      "ShipCountry": "Mexico"
    },
    { - }, // 14 items
    { - }, // 14 items
    { - }, // 14 items
    { - }, // 14 items
  ],
  "totalRow": 830,
  "totalPage": 166,
  "sort": "OrderID",
  "direction": "DESC"
}
```

- b. Menampilkan data orders berdasarkan shipCountry

[GET] api/v1/orders/country/{shipCountry}

```
localhost:8000/api/v1/orders/country/Germany
{
  {
    "OrderID": 10249,
    "CustomerID": "TOMSP",
    "EmployeeID": 6,
    "OrderDate": "1996-07-05 00:00:00",
    "RequiredDate": "1996-08-16 00:00:00",
    "ShippedDate": "1996-07-10 00:00:00",
    "ShipVia": 1,
    "Freight": 11.6100,
    "ShipName": "Toms Spezialitten",
    "ShipAddress": "Luisenstr. 48",
    "ShipCity": "Mnster",
    "ShipRegion": null,
    "ShipPostalCode": "44087",
    "ShipCountry": "Germany"
  },
  { - }, // 14 items
  { - }, // 14 items
}
```

- c. Menampilkan data orders by customer

[GET] api/v1/orders/customer/{customer}

```
localhost:8000/api/v1/orders/customers/ALFKI

[
  {
    "OrderID": 10643,
    "CustomerID": "ALFKI",
    "EmployeeID": 6,
    "OrderDate": "1997-08-25 00:00:00",
    "RequiredDate": "1997-09-22 00:00:00",
    "ShippedDate": "1997-09-02 00:00:00",
    "ShipVia": 1,
    "Freight": "29.4600",
    "ShipName": "Alfreds Futterkiste",
    "ShipAddress": "Obere Str. 57",
    "ShipCity": "Berlin",
    "ShipRegion": null,
    "ShipPostalCode": "12209",
    "ShipCountry": "Germany"
  },
  { - }, // 14 items
  { - }, // 14 items
  { - }, // 14 items
  { - }, // 14 items
  { - } // 14 items
]
```

- d. Menampilkan data orders by OrderDate antara tanggal awal dan tanggal akhir

[GET] api/v1/orders/orderdate/{startdate}/{enddate}

```
localhost:8000/api/v1/orders/orderdate/1996-07-04/1998-07-04

[
  {
    "OrderID": 10248,
    "CustomerID": "VINET",
    "EmployeeID": 5,
    "OrderDate": "1996-07-04 00:00:00",
    "RequiredDate": "1996-08-01 00:00:00",
    "ShippedDate": "1996-07-16 00:00:00",
    "ShipVia": 3,
    "Freight": "32.3800",
    "ShipName": "Vins et alcools Chevalier",
    "ShipAddress": "59 rue de l-Abbaye",
    "ShipCity": "Reims",
    "ShipRegion": null,
    "ShipPostalCode": "51100",
    "ShipCountry": "France"
  },
  { - }, // 14 items
  { - }, // 14 items
  { - }, // 14 items
  { - }, // 14 items
  { - }, // 14 items
  { - }, // 14 items
]
```

- e. Menampilkan data orders by Shipper Name

[GET] api/v1/orders/shipper/{\$shipper}

```
localhost:8000/api/v1/orders/shipper/Speedy%20Express

[
  {
    "OrderID": 10249,
    "CustomerID": "TOMSP",
    "EmployeeID": 6,
    "OrderDate": "1996-07-05 00:00:00",
    "RequiredDate": "1996-08-16 00:00:00",
    "ShippedDate": "1996-07-10 00:00:00",
    "ShipVia": 1,
    "Freight": "11.6100",
    "ShipName": "Toms Spezialitten",
    "ShipAddress": "Luisenstr. 48",
    "ShipCity": "Mnster",
    "ShipRegion": null,
    "ShipPostalCode": "44087",
    "ShipCountry": "Germany"
  },
  { - }, // 14 items
  { - }, // 14 items
  { - }, // 14 items
  { - }, // 14 items
  { - }, // 14 items
  { - }, // 14 items
]
```

1. Kompres (zip) dan upload hasil project ke Google Drive :  
<https://drive.google.com/drive/folders/1tpXJm6n7-dYj0Kj-Ms5Pnk7u7z5JAgB6?usp=sharing>

*Semoga Sukses*