







MODUL WEB PROGRAMMER (REACT JS)





REST API

REST API (Representational State Transfer Application Programming Interface) adalah jenis API (Application Programming Interface) yang mengikuti prinsip REST. REST API memungkinkan aplikasi atau sistem untuk berkomunikasi dan bertukar data melalui permintaan HTTP standar, seperti **GET**, **POST**, **PUT**, dan **DELETE**.

HTTP Method	Fungsi	Deskripsi
GET	Membaca data	Mengambil atau membaca data dari server tanpa mengubah apa pun. Misalnya, mengambil daftar produk atau detail pengguna.
POST	Menambah data baru	Menambah data baru ke server. Misalnya, membuat pengguna baru atau menambah artikel baru.
PUT	Memperbarui data	Memperbarui data yang sudah ada di server. Biasanya digunakan untuk memperbarui seluruh resource.
PATCH	Memperbarui sebagian data	Memperbarui sebagian data pada resource. Misalnya, mengubah nama pengguna tanpa mengubah data lainnya.
DELETE	Menghapus data	Menghapus data dari server. Misalnya, menghapus akun pengguna atau produk tertentu.







Dokumentasi REST API

- Untuk menggunakan API umumnya kita dapat membaca dokumentasi penggunaannya.
 Untuk melakukan testing API kita bisa menggunakan tools seperti Postman, Insomnia,
 Swagger UI dan lainnya.
- Untuk API Todo yang akan dikerjakan bisa dilihat dokumentasinya di: https://jsonplaceholder.typicode.com/guide/

Guide

Below you'll find examples using Fetch API but you can JSONPlaceholder with any other language.

You can copy paste the code in your browser console to quickly test JSONPlaceholder.

Getting a resource

```
fetch('https://jsonplaceholder.typicode.com/posts/1')
  .then((response) => response.json())
  .then((json) => console.log(json));
```

Output

```
{
    id: 1,
    title: '...',
    body: '...',
    userId: 1
}
```







- 1. Buat project baru (di folder belajar_react) melalui cmd : npx create-react-app todo-app
- 2. Buka VSCode, arahkan ke folder todo-app
- 3. Buka terminal, install dependencies: npm install axios react-bootstrap bootstrap react-router-dom react-router-bootstrap
- 4. Import css di index.js: import 'bootstrap/dist/css/bootstrap.min.css';
- 5. Sesuaikan index.html yaitu: title, content
- 6. Buat Home.js (buka project photo-gallery juga untuk jadi referensei) dengan endpoint : https://jsonplaceholder.typicode.com/todos. Sesuaikan dengan json nya.
- 7. Buat Header.js







8. Buat Header.js

```
JS Header.js U X
src > JS Header.js > [∅] default
       import React from "react";
       import { Navbar, Nav } from "react-bootstrap";
       import { LinkContainer } from "react-router-bootstrap";
       function Header() {
  5
         return (
           <Navbar bg="light" expand="lg">
             <LinkContainer to="/">
  8
               <Navbar.Brand>Todo App</Navbar.Brand>
  9
             </LinkContainer>
 10
             <Navbar.Toggle aria-controls="basic-navbar-nav" />
 11
             <Navbar.Collapse id="basic-navbar-nav">
               <Nav className="ml-auto">
 12
                 <LinkContainer to="/">
 13
                   <Nav.Link>Home</Nav.Link>
 14
                 </LinkContainer>
 15
               </Nav>
 16
             </Navbar.Collapse>
 17
           </Navbar>
 18
 19
 20
       export default Header;
 21
```







9. Modifikasi App.js

```
JS App.js M X
src > JS App.js > 分 App
      import React from 'react';
      import { BrowserRouter as Router, Route, Routes } from 'react-router-dom';
  3
      import Home from './Home';
      import Header from './Header';
      function App() {
        return (
  8
           <Router>
           <div className="container">
  9
           <Header />
                           You, 4 minutes ago • Uncommitted changes
 10
           <Routes>
 11
 12
            <Route path="/" element={<Home />} />
 13
           </Routes>
 14
           </div>
 15
         </Router>
 16
 17
 18
      export default App;
```







10. Hasil

!	① localhost:3000	₽ ₩	Ď
	Todo App Home		

List Of Todos

Title	Completed
delectus aut autem	Not Completed
quis ut nam facilis et officia qui	Not Completed
fugiat veniam minus	Not Completed
et porro tempora	Completed
laboriosam mollitia et enim quasi adipisci quia provident illum	Not Completed
qui ullam ratione quibusdam voluptatem quia omnis	Not Completed
illo expedita consequatur quia in	Not Completed
quo adipisci enim quam ut ab	Completed
molestiae perspiciatis ipsa	Not Completed
illo est ratione doloremque quia maiores aut	Completed







Lanjutan TODO

- Menambahkan component Add Todo: AddTodo.js
 - Component ini menghandle add todo dan Edit Todo
- Menambahkan tombo edit dan hapus ada Home.js
 - Klik Edit Todo maka akan ke page AddTodo dengan mengirimkan id
 - Hapus Todo Maka akan menghapus todo By Id





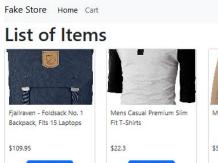


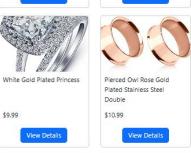
- Simple e commerce dari https://fakestoreapi.com/, lihat dokumentasi API nya
- Menampilkan list item
 - Menampilkan list item dari endpoint GET https://fakestoreapi.com/products
- Menampilkan detail item
 - Menampilkan detail item dari endpoint GET
 https://fakestoreapi.com/products/idProduct
 - Di halaman detail input jumlah item, tombol Order. Klik order hit endpoint POST https://fakestoreapi.com/carts
- Menampilkan halaman Cart
 - Di halaman Cart end point GET https://fakestoreapi.com/carts/user/userid
 - Terdapat delete dengan endpoint DELETE: https://fakestoreapi.com/carts/cartid
- Menampilkan halaman Checkout
 - Di halaman Checkout end point GET https://fakestoreapi.com/carts/user/userid





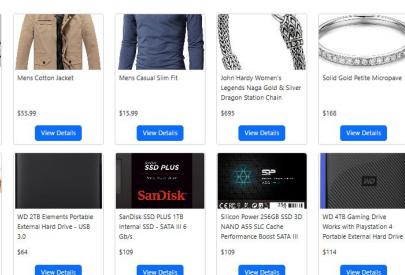






\$9.99

View Details



Fjallraven - Foldsack No. 1 Backpack, Fits 15 Laptops



Your perfect pack for everyday use and walks in the forest. Stash your laptop (up to 15 inches) in the padded sleeve, your everyday

Price: \$109.95

Quantity

1

Add to Cart







Your Cart

Order Details

Date: 1/2/2020

Mens Casual Premium Slim Fit T-Shirts
\$22.3 x 4

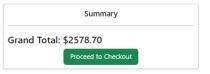
Subtotal: \$89.20

Fjallraven - Foldsack No. 1 Backpack, Fits 15 Laptops
\$109.95 x 10

Subtotal: \$1099.50

John Hardy Women's Legends Naga Gold & Silver Dragon
Station Chain Bracelet
\$695 x 2

Subtotal: \$1390.00



Checkout Preview

Your Cart	
Mens Casual Premium Slim Fit T-Shirts \$22.3 x 4	Subtotal: \$89.20
Fjallraven - Foldsack No. 1 Backpack, Fits 15 Laptops \$109.95 x 10	Subtotal: \$1099.50
John Hardy Women's Legends Naga Gold & Silver Dragon Station Chain Bracelet \$695 x 2	Subtotal: \$1390.00

	Order Summary	
Total: \$2	578.70	
	Preview Only	







- Buat project baru (di folder belajar_react) melalui cmd : npx create-react-app olshopapp
- 2. Buka VSCode, arahkan ke folder olshop-app
- 3. Buka terminal, install dependencies: npm install axios react-bootstrap bootstrap react-router-dom react-router-bootstrap
- 4. Import css di index.js: import 'bootstrap/dist/css/bootstrap.min.css';
- 5. Sesuaikan index.html yaitu: title, content
- 6. Buat Header.js







Header.js

```
JS Header.js U X
src > JS Header.js > [@] default
       import React from "react";
       import { Navbar, Nav } from "react-bootstrap";
       import { LinkContainer } from "react-router-bootstrap";
       Tabnine | Edit | Test | Explain | Document | Ask | Open Header in Preview.js
       function Header() {
         return (
           <Navbar bg="light" expand="lg">
   6
   7
              <LinkContainer to="/">
                <Navbar.Brand>Fake Store</Navbar.Brand>
   8
             </LinkContainer>
   9
              <Navbar.Toggle aria-controls="basic-navbar-nav" />
 10
              <Navbar.Collapse id="basic-navbar-nav">
 11
                <Nav className="ml-auto">
 12
                  <LinkContainer to="/">
 13
                    <Nav.Link>Home</Nav.Link>
 14
                  </LinkContainer>
 15
                  <LinkContainer to="/cart">
 16
                    <Nav.Link>Cart</Nav.Link>
 17
                  </LinkContainer>
 18
 19
                </Nav>
             </Navbar.Collapse>
 20
 21
            </Navbar>
 22
 23
       export default Header;
 24
```







7. Buat Home.js







8. App.js

```
JS Home.js U
               JS App.js M X
src > JS App.js > ...
       import { BrowserRouter as Router, Routes, Route } from 'react-router-dom';
       import Header from './Header';
       import Home from './Home';
       function App() {
  5
         return (
  6
           <Router>
           <div className="container">
  8
          <Header />
  9
           <Routes>
 10
          <Route path="/" element={<Home />} />
 11
 12
          </Routes>
           </div>
 13
 14
        </Router>
 15
        );
 16
 17
             You, 2 hours ago • Initialize project using Create React App
       export default App;
 18
 19
```







9. Buat file constants.js untuk menyimpan konstanta userid. Karena untuk saat ini userid nya di hardcode.

```
JS constants.js X
src > JS constants.js
1   export const USER_ID = 1;
```

- 10. Buat file ApiService.js, yang isinya adalah kumpulan function-function untuk mengakses Api supaya mudah dalam memanajemen kode. file akan diberikan.
- 11. Buat file css component.css. (file akan diberikan)







12. Home.js

```
JS Home.js U X
src > JS Home.js > ...
      import React, { useState, useEffect } from 'react';
      import { Card, Button, Row, Col } from 'react-bootstrap';
      import { Link } from 'react-router-dom';
      import { fetchProducts } from './ApiService';
      import './component.css'
  6
      function Home() {
  7
         const [products, setProducts] = useState([]);
  8
         useEffect(() => {
 10
           const getProducts = async () => {
 11
 12
            try {
               const data = await fetchProducts();
 13
 14
               setProducts(data);
            } catch (error) {
 15
               console.error('Error fetching products:', error);
 16
 17
 18
           getProducts();
 19
 20
        }, []);
 21
```







13. Home.js

```
return (
22
         <div>
23
            <h1>List of Items</h1>
24
25
            <Row>
26
              {products.map((product) => (
                <Col key={product.id} xs={12} sm={6} md={2} lg={2}>
27
                  <Card style={{ marginBottom: '1rem', display: 'flex', flexDirection: 'column' }}>
28
29
                    <Card.Img
                      variant="top"
30
                      src={product.image}
31
                      style={{
32
33
                        objectFit: 'cover',
                        height: '120px',
34
35
                       width: '100%',
36
37
                    />
                    <Card.Body style={{ flex: 1 }}>
38
                      <Card.Text style={{ height: '60px', overflow: 'hidden' }}>{product.title}</Card.Text>
39
                      <Card.Text>${product.price}</Card.Text>
40
                      <Link className="d-flex justify-content-center" to={\[ \] /detail/\[ \] /groduct.id\[ \] \\ \}>
41
                        <Button variant="primary">View Details</Button>
42
                      </Link>
43
                   </Card.Body>
44
                 </Card>
45
               </Col>
46
47
              ))}
           </Row>
48
49
         </div>
50
51
```



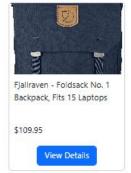




14. Checking Point

Fake Store Home Cart

List of Items









SanDisk

View Details

SanDisk SSD PLUS 1TB

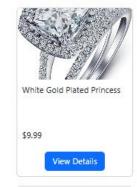
Internal SSD - SATA III 6

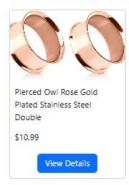
\$109























15. Buat Detail.js

```
JS Detail.js U X
src > JS Detail.js > ...
       import React, { useState, useEffect } from 'react';
      import { useParams } from 'react-router-dom';
      import { Button, Col, Form, Row } from 'react-bootstrap';
       import { fetchProductDetails, addToCart } from '../service/ApiService';
       import { USER_ID } from '../constants';
       function Detail() {
         const { id } = useParams();
  9
         const [product, setProduct] = useState({});
         const [quantity, setQuantity] = useState(1);
 10
 11
         useEffect(() => {
 12
           const getProductDetails = async () => {
 13
 14
               const data = await fetchProductDetails(id); // Fetch product using the service
 15
 16
               setProduct(data);
             } catch (error) {
 17
               console.error('Error fetching product details:', error);
 18
 19
 20
           getProductDetails();
 21
 22
         }, [id]);
 23
```







16. Buat Detail.js

```
JS Detail.js U X
src > JS Detail.js > ...
       import React, { useState, useEffect } from 'react';
      import { useParams } from 'react-router-dom';
       import { Button, Col, Form, Row } from 'react-bootstrap';
       import { fetchProductDetails, addToCart } from '../service/ApiService';
       import { USER ID } from '../constants';
  6
       function Detail() {
  7
  8
         const { id } = useParams();
         const [product, setProduct] = useState({});
  9
         const [quantity, setQuantity] = useState(1);
 10
 11
         useEffect(() => {
 12
           const getProductDetails = async () => {
 13
 14
             try {
               const data = await fetchProductDetails(id); // Fetch product using the service
 15
 16
               setProduct(data);
             } catch (error) {
 17
               console.error('Error fetching product details:', error);
 18
 19
 20
           getProductDetails();
 21
 22
         }, [id]);
 23
```







17. Buat Detail.js

```
const handleAddToCart = async () => {
24
25
         try {
26
           await addToCart(USER_ID, [{ productId: product.id, quantity }]);
           alert('Product added to cart');
27
           catch (error) {
28
           console.error('Error adding to cart:', error);
29
30
31
       };
32
```

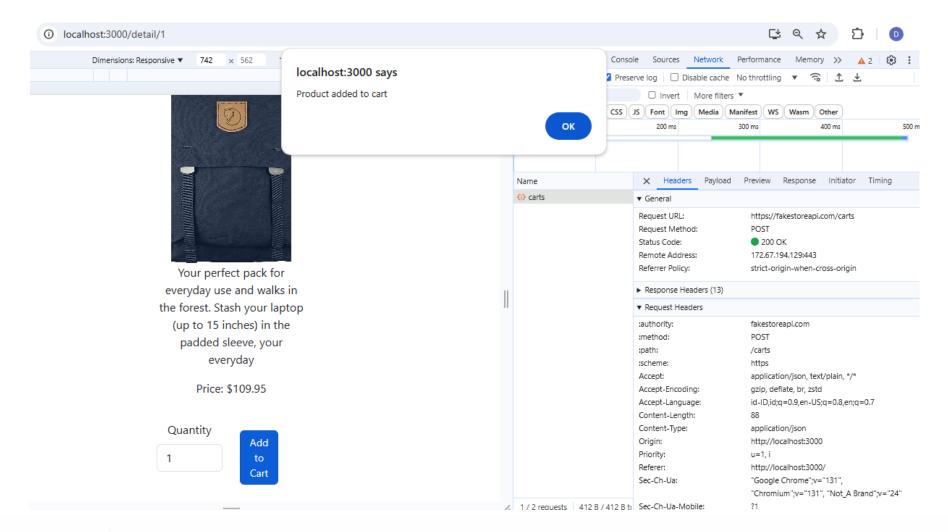
- 18. Kode selanjutnya ada di potongan kode di snippet.txt
- 19. App.js







18. Checking point









- 19. Buat Cart.js (file diberikan)
- 20. Buat Checkout.js (file diberikan)
- 21. Sesuaikan App.js

terima kasih njengkepi parikan
tarima kase terime kaseh
teghemo kasih nerima nihan
kurre sumanga' saohagölö
rutam nuwus kasuwun lias ate tarimo kasih teghima kasih
tarimo kasih teghima kasih
ngatur nuhun sukur dofu dangke surak sabeu
ta' kabessa nyo'on makasa SUWUN
tarima Kasi teurimong geunaseh tiba teing aura!
epang gawang kesoon sabah
tarima kasi teurimong geunaseh epang gawang keso'on sabah tumpu lalo matur nuwun bujur
tumpu lalo e saparauni tampi asih matur nuwun bujur sukur moanto obrigado diate tupa berijin brejen
matur sukema sukur moanto
obrigado diate tupa berijin brejen
odu'olo terima kaseh kurru sumange
mauliate waniyam walidi'a.
mauliate waniyam walidi'a tumpuno laloku sinmung
hatur nuhun tampeasu
minta rela kasumasa
tinatauan mator sekelangkong
masurak bagat





