

Modul Flutter Rest Api
Aplikasi Jadwal Pelajaran
PHP & MySQL



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Sebelum mengikuti tutorial ini, silahkan instal hal-hal yang diperlukan :

- SDK Flutter
- Dart
- Text Editor Visual Studio Code atau IDE Android Studio

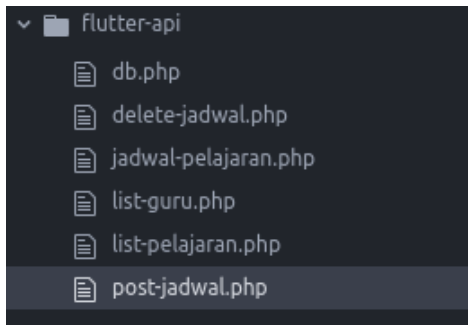
Tutorial ada di official website Flutter(flutter.io)

Membuat API Menggunakan PHP dengan database Mysql

- Buat database dan table dengan susunan seperti berikut :



- Siapkan file-file PHP dengan susunan



- Masukkan Kode PHP untuk koneksi ke database di file db.php

```
<?php

try {

    $db = new PDO("mysql:host=localhost;dbname=flutter_mapel;",
                  "root", "password");

} catch (Exception $e) {

    echo $e->getMessage();
}

?>
```

- list-pelajaran.php

```
<?php

require_once 'db.php';
$query = $db->prepare("SELECT * FROM pelajaran");

if ($query->execute()) {

    $data = $query->fetchAll(PDO::FETCH_OBJ);

    $response = $data;
}
header('Content-Type: application/json');

echo json_encode($response);

?>
```

- list-guru.php

```
<?php

require_once 'db.php';
$query = $db->prepare("SELECT guru.id, guru.nama_guru, pelajaran.nama_pelajaran FROM".
    " guru,pelajaran WHERE guru.id_pelajaran=pelajaran.id");

if ($query->execute()) {

    $data = $query->fetchAll(PDO::FETCH_OBJ);

    $response = $data;
}

header('Content-Type: application/json');

echo json_encode($response);

?>
```

- [jadwal-pelajaran.php](#)

```
<?php
require_once 'db.php';

$hari = $_GET['hari'];

$query = $db->prepare("SELECT jadwal_mapel.id,guru.nama_guru,pelajaran.nama_pelajaran ".
                      "FROM jadwal_mapel,guru,pelajaran ".
                      "WHERE hari='$hari' AND jadwal_mapel.id_guru=guru.id ".
                      "AND guru.id_pelajaran=pelajaran.id");

if ($query->execute()) {

    $data = $query->fetchAll(PDO::FETCH_OBJ);

    $response = $data;
}
header('Content-Type: application/json');

echo json_encode($response);

?>
```

- [post-jadwal.php](#)

```
<?php
require_once 'db.php';

$id_guru = $_POST['id_guru'];
$hari = $_POST['hari'];

$query = $db->prepare("INSERT INTO jadwal_mapel(hari, id_guru) VALUES('$hari','$id_guru')");

$query->execute();

?>
```

- [delete-jadwal.php](#)

```
<?php
require_once 'db.php';

$id = $_GET['id'];

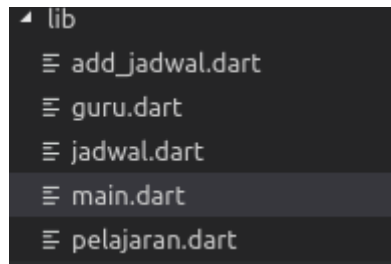
$query = $db->prepare("DELETE FROM jadwal_mapel WHERE id = $id");

$query->execute();

?>
```

Membuat Aplikasi Mobile menggunakan Flutter

- Buat File-file berikut



- main.dart

```
import 'package:flutter/material.dart';
import 'package:pelajaran/guru.dart';
import 'package:pelajaran/jadwal.dart';
import 'package:pelajaran/pelajaran.dart';

void main() {
  runApp(new MaterialApp(
    title: "Jadwal Saya",
    home: new Home(),
  ));
}

class Home extends StatefulWidget {
  @override
  _HomeState createState() => _HomeState();
}

class _HomeState extends State<Home> {
  List<String> hari = ["Senin", "Selasa", "Rabu", "Kamis", "Jumat", "Data Mata Pelajaran", "Data Guru"];
  @override
  Widget build(BuildContext context) {
    return new Scaffold(
      appBar: new AppBar(title: new Text("Hari")),
      body: new ListView.builder(
        itemCount: hari.length,
        itemBuilder: (context, i){
          if(hari[i] == "Data Mata Pelajaran"){
            return new ListTile(
              leading: new Icon(Icons.desktop_windows),
              title: new Text("${hari[i]}"),
              onTap: () {
                Navigator.push(
                  context,
                  MaterialPageRoute(builder: (context) => Pelajaran());
                );
              },
            );
          } else if(hari[i] == "Data Guru"){
            return new ListTile(
              leading: new Icon(Icons.contacts),
              title: new Text("${hari[i]}"),
              onTap: () {
                Navigator.push(
                  context,
                  MaterialPageRoute(builder: (context) => Guru());
                );
              },
            );
          } else{
            return new ListTile(
              leading: new Icon(Icons.view_day),
              title: new Text("${hari[i]}"),
              onTap: () {
                Navigator.push(
                  context,
                  MaterialPageRoute(builder: (context) => Jadwal(day: hari[i]));
                );
              },
            );
          }
        },
      ),
    );
  }
}
```

- jadwal.dart

```
import 'package:flutter/material.dart';
import 'package:pelajaran/add_jadwal.dart';
import 'package:http/http.dart' as http;
import 'dart:async';
import 'dart:convert';

class Jadwal extends StatefulWidget {

  Jadwal({this.day});
  final String day;

  @override
  _JadwalState createState() => _JadwalState(dayChoose: day);
}

class _JadwalState extends State<Jadwal> {

  _JadwalState({this.dayChoose});
  final String dayChoose;

  List jadwalJson;

  Future<String> getJadwal() async {
    http.Response resultJadwal = await http.get(
      Uri.encodeFull("http://192.168.43.140/flutter-api/jadwal-pelajaran.php?hari="+dayChoose),
      headers: {"Accept" : "application/json"}
    );

    this.setState(){
      jadwalJson = jsonDecode(resultJadwal.body);
    };
  }

  void deleteJadwal(String id){
    var url = "http://192.168.43.140/flutter-api/delete-jadwal.php?id="+id;
    http.get(url);
    Navigator.pop(context);
  }

  @override
  void initState() {
    // TODO: implement initState
    this.getJadwal();
  }

  @override
  Widget build(BuildContext context) {
    return new Scaffold(
      appBar: new AppBar(title: new Text("Jadwal Pelajaran")),
      body: ListView.builder(
        itemCount: jadwalJson == null ? 0: jadwalJson.length,
        itemBuilder: (context,i){
          return new Column(
            children: <Widget>[
              new ListTile(
                title: new Text(jadwalJson[i]['nama_pelajaran']),
                subtitle: new Text(jadwalJson[i]['nama_guru']),
              ),
              new FlatButton(
                child: new Text("Hapus"),
                color: Colors.red,
                textColor: Colors.white,
                onPressed: (){
                  deleteJadwal(jadwalJson[i]['id']);
                },
              ),
            ],
          );
        },
      ),
      floatingActionButton: FloatingActionButton(
        tooltip: "Add Jadwal",
        child: Icon(Icons.add),
        onPressed: (){
          Navigator.push(
            context,
            MaterialPageRoute(builder: (context) => AddJadwal(addhari: dayChoose,));
          ),
        ),
      floatingActionButtonLocation: FloatingActionButtonLocation.endDocked,
    );
  }
}
```

- add_jadwal.dart

```
import 'package:flutter/material.dart';
import 'package:http/http.dart' as http;
import 'dart:async';
import 'dart:convert';

import 'package:pelajaran/jadwal.dart';

class AddJadwal extends StatefulWidget {
  AddJadwal({this.addhari});
  final String addhari;
  @override
  _AddJadwalState createState() => _AddJadwalState(sethari: addhari);
}

class _AddJadwalState extends State<AddJadwal> {
  _AddJadwalState({this.sethari});

  final String sethari;

  String _guru;

  List guruJson;

  Future<String> getGuru() async {
    http.Response resultGuru = await http.get(
      Uri.encodeFull("http://192.168.43.140/flutter-api/list-guru.php"),
      headers: {"Accept" : "application/json"}
    );

    this.setState((){
      guruJson = jsonDecode(resultGuru.body);
    });
  }

  @override
  void initState() {
    // TODO: implement initState
    this.getGuru();
  }

  void postData(){
    var uri = "http://192.168.43.140/flutter-api/post-jadwal.php";
    http.post(uri, body: {
      "id_guru": _guru,
      "hari": sethari,
    });
  }
}
```

```

@override
void initState() {
  // TODO: implement initState
  this.getGuru();
}

void postData(){
  var uri = "http://192.168.43.140/flutter-api/post-iadwal.php";
  http.post(uri, body: {
    "id_guru": _guru,
    "hari": sethari,
  });
}

@override
Widget build(BuildContext context) {
  return new Scaffold(
    appBar: new AppBar(title: new Text("Add Jadwal")),
    body: new ListView(
      children: <Widget>[
        new Container(
          padding: EdgeInsets.all(10.0),
          child: new DropdownButton(
            items: guruJson.map((item){
              return new DropdownMenuItem(
                child: new Text(item['nama_guru']),
                value: item['id'],
              );
            }).toList(),
            onChanged: (newVal){
              setState(() {
                _guru = newVal;
              });
              print(sethari);
            },
            value: _guru,
          ),
        ),
        new Container(
          child: new Center(
            child: new RaisedButton(
              child: new Text("Submit"),
              onPressed: (){
                postData();
                Navigator.pop(this.context);
              },
            ),
          ),
        ),
      ],
    ),
  );
}

```


- pelajaran.dart

```
import 'package:flutter/material.dart';
import 'package:http/http.dart' as http;
import 'dart:async';
import 'dart:convert';

class Pelajaran extends StatefulWidget {
  @override
  _PelajaranState createState() => _PelajaranState();
}

class _PelajaranState extends State<Pelajaran> {

  List pelajaranJson;

  Future<String> getPelajaran() async {
    http.Response resultPelajaran = await http.get(
      Uri.encodeFull("http://192.168.43.140/flutter-api/list-pelajaran.php"),
      headers: {"Accept" : "application/json"}
    );

    this.setState((){
      pelajaranJson = jsonDecode(resultPelajaran.body);
    });
  }

  @override
  void initState() {
    // TODO: implement initState
    this.getPelajaran();
  }

  @override
  Widget build(BuildContext context) {
    return new Scaffold(
      appBar: new AppBar(title: new Text("Mata Pelajaran")),
      body: new ListView.builder(
        itemCount: pelajaranJson == null ? 0 : pelajaranJson.length,
        itemBuilder: (context,i){
          return new ListTile(
            title: new Text("${pelajaranJson[i]['nama_pelajaran']}"),
          );
        }
      ),
    );
  }
}
```

- guru.dart

```
import 'package:flutter/material.dart';
import 'package:http/http.dart' as http;
import 'dart:async';
import 'dart:convert';

class Guru extends StatefulWidget {
  @override
  _GuruState createState() => _GuruState();
}

class _GuruState extends State<Guru> {

  List guruJson;

  Future<String> getGuru() async {
    http.Response resultGuru = await http.get(
      Uri.encodeFull("http://192.168.43.140/flutter-api/list-guru.php"),
      headers: {"Accept" : "application/json"}
    );

    this.setState((){
      guruJson = jsonDecode(resultGuru.body);
    });
  }

  @override
  void initState() {
    // TODO: implement initState
    this.getGuru();
  }

  @override
  Widget build(BuildContext context) {
    return new Scaffold(
      appBar: new AppBar(title: new Text("Guru")),
      body: new ListView.builder(
        itemCount: guruJson == null ? 0 : guruJson.length,
        itemBuilder: (context,i){
          return new ListTile(
            title: new Text("${guruJson[i]['nama_guru']}"),
            subtitle: new Text("${guruJson[i]['nama_pelajaran']}"),
          );
        }
      ),
    );
  }
}
```

- jangan lupa untuk menambahkan dependencies di pubspec.yaml

```
dependencies:
  flutter:
    sdk: flutter

# The following adds the CupertinoIcons
# Use with the CupertinoIcons
cupertino_icons: ^0.1.2
http: ^0.11.3+16
```

Menjalankan aplikasi

- untuk menjalankan aplikasi silahkan masuk ke directory menggunakan perintah berikut :
`cd [__Directory Project__]`
- dan jalankan project dengan perintah
`flutter run`