

# **Flutter Mentoring Udacoding**

## **Week 4**



## **Silabus Materi Week 4**

### **Membuat Aplikasi Pegawai dengan fitur sebagai berikut :**

- Database Pegawai
- Webservice dengan Api
- Splash Screen
- Login dengan Api
- Register dengan Api
- Implementasi Shared Preferences
- User bisa melihat List Pegawai
- User bisa melakukan Edit data Pegawai
- User bisa melakukan delete data pegawai
- Signout

### **Access Camera**

#### **Bloc Pattern Pada Flutter**

- Pengenalan Bloc
- Implementasi Bloc Pada Flutter

#### **RxDart Pattern Pada Flutter**

- Pengenalan RxDart
- Implementasi Rxdart Pada Flutter

### **Task :**

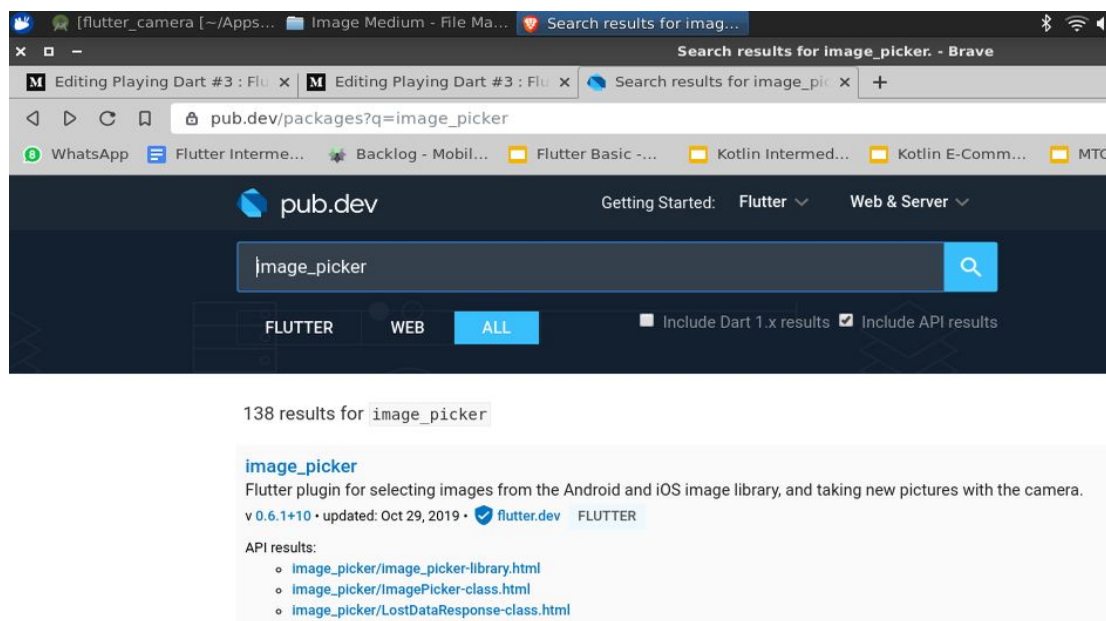
- Membuat Aplikasi Kalkulator Menggunakan Bloc Pattern
- Membuat Aplikasi Login dan Register Menggunakan RxDart



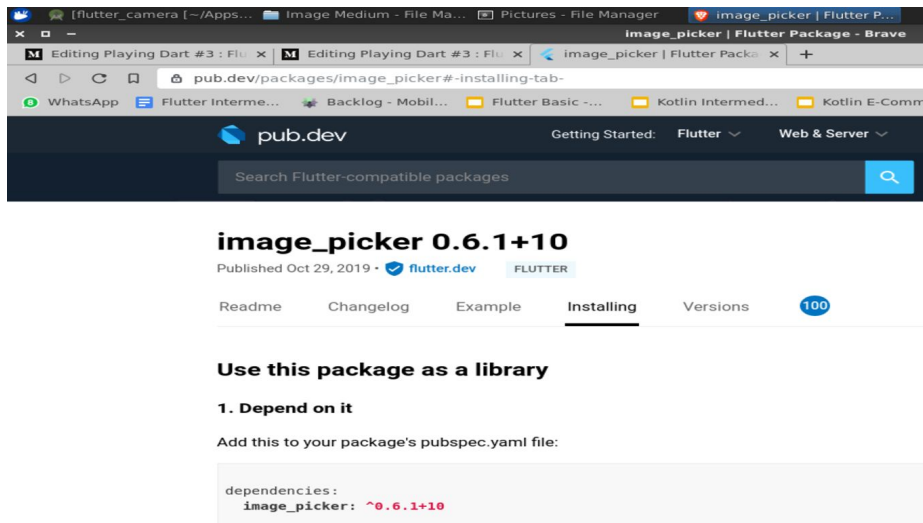
# ACCESS CAMERA

Pada modul kali ini kita akan membahas materi intermediate flutter disini kita akan membuat aplikasi yang mana akan meminta akses menggunakan camera smartphone kita dan ketika kita mengambil gambar maka gambar akan ditampilkan dihalaman home, oke bagaimana cara nya langsung saja kita mulai

1. Pertama kita buat project baru terlebih dahulu dengan nama flutter\_camera setelah terbuat kita tunggu sampai proses indexing nya selesai
2. Sambil menunggu proses indexing kita buka situs pub.dev untuk mendapatkan package tambahan yang bernama image\_picker, kita buka situs tersebut lalu kita masukan kata kunci image\_picker lalu klik tombol search seperti gambar dibawah ini



3. Lalu kita pilih yang pertama kali muncul kemudian kita lihat pada bagian Installing kemudian kita copy kan pada bagian dependencies tepatnya di **image\_picker: ^version** untuk ditempatkan di dalam file pubspec.yaml tepatnya pada bagian dependenciesnya juga



4. Setelah proses indexing file selesai kita menuju pada file pubspec.yaml kita copy kan image\_picker tadi pada bagian dependenciesnya maka kurang lebih seperti ini Kemudian kita klik package get :

```
dependencies:  
  flutter:  
    sdk: flutter  
  
# The following adds the Cupertino Icons font to your application.  
# Use with the CupertinoIcons class for iOS style icons.  
cupertino_icons: ^0.1.2  
image_picker: ^0.6.1+8
```

5. Setelah proses indexing kedua selesai kita menuju pada bagian file main.dart kemudian kita edit file tersebut dengan mengetikkan code berikut ini :

```
import 'dart:io';  
import 'package:flutter/material.dart';  
import 'package:image_picker/image_picker.dart';  
  
void main() => runApp(MaterialApp(  
  home: AksesKamera(),  
  debugShowCheckedModeBanner: false,  
));  
  
class AksesKamera extends StatefulWidget {  
  @override  
  _AksesKameraState createState() => _AksesKameraState();  
}  
  
class _AksesKameraState extends State<AksesKamera> {  
  File image;
```



```
//akses kamera
aksesCamera() async {
  print('Picker is Called');
  File img = await ImagePicker.pickImage(source: ImageSource.camera);
  if (img != null) {
    image = img;
    setState(() {});
  }
}

@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: Text('Akes Kamera'),
      backgroundColor: Colors.green,
    ),
    body: Center(
      child: Container(
        child: image == null ? Text('No Image To Show') :
Image.file(image),
      ),
    ),
    floatingActionButton: FloatingActionButton(
      backgroundColor: Colors.green,
      child: Icon(Icons.add_a_photo),
      onPressed: aksesCamera,
    ),
  );
}
```

6. Setelah selesai mengedit pasti akan ada file yang merah yaitu tepatnya pada file `widget_test.dart`, pada file itu kita edit dan kita ganti pada **Home** menjadi **AksesKamera** maka kurang lebih seperti ini full script nya:

```
import 'package:flutter/material.dart';
import 'package:flutter_test/flutter_test.dart';

import 'package:flutter_camera/main.dart';

void main() {
  testWidgets('Counter increments smoke test', (WidgetTester tester)
  async {
```



```
// Build our app and trigger a frame.
await tester.pumpWidget(AksesKamera());

// Verify that our counter starts at 0.
expect(find.text('0'), findsOneWidget);
expect(find.text('1'), findsNothing);

// Tap the '+' icon and trigger a frame.
await tester.tap(find.byIcon(Icons.add));
await tester.pump();

// Verify that our counter has incremented.
expect(find.text('0'), findsNothing);
expect(find.text('1'), findsOneWidget);
});
}
```

7. Agar dapat berjalan lancar pada saat kita running aplikasi kita didalam iOS kita perlu menambahkan script dibawah ini pada file **info.plist** tepatnya didalam folder **ios/Runner/info.plist** kita ketikan script berikut ini :

```
....

<key>NSPhotoLibraryUsageDescription</key>
<string>We need this key to get photo from gallery </string>
<key>NSCameraUsageDescription</key>
<string>We need this key to get photo from camera source </string>
<key>NSMicrophoneUsageDescription</key>

....
```

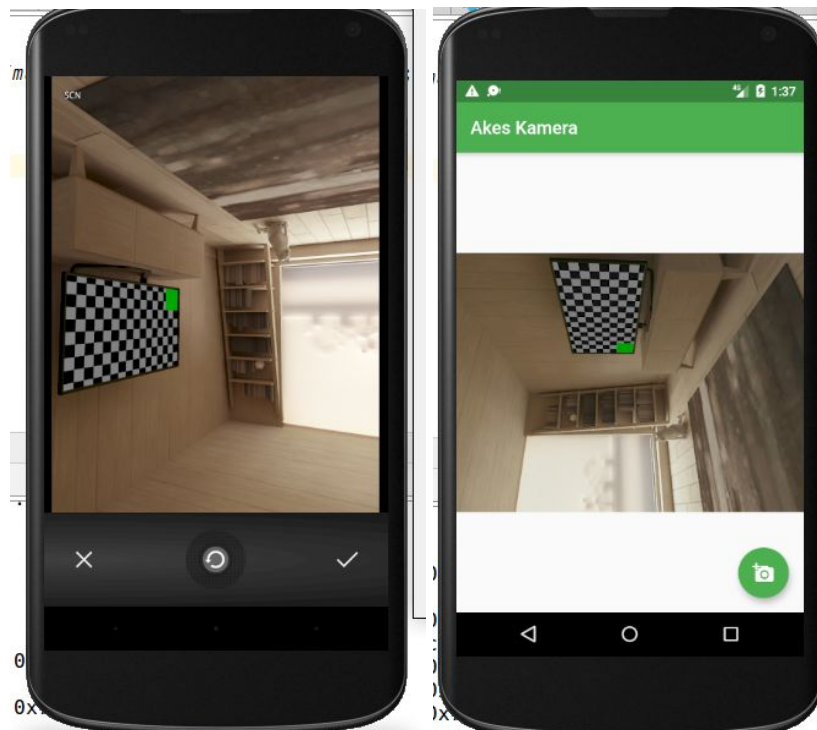
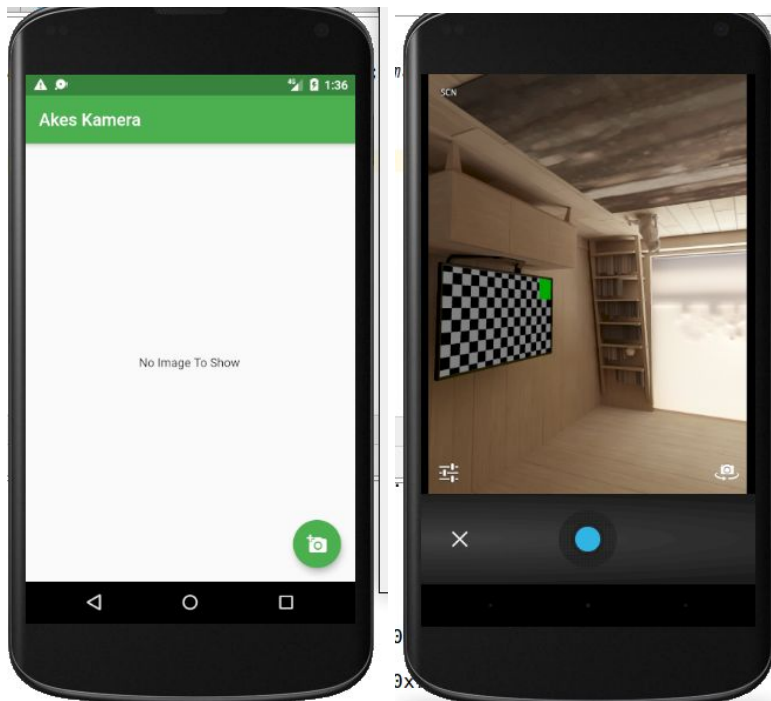
8. Kemudian coba kita running aplikasi kita tadi dengan menggunakan emulator ataupun smartphone langsung maka hasilnya kurang lebih akan seperti ini :



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# CRUD PEGAWAI MENGGUNAKAN PHP dan MYSQL

## A. TENTANG APLIKASI

Aplikasi Data Pegawai merupakan Aplikasi yang menampilkan CRUD data pegawai dengan menggunakan database PHP dan MYSQL. Operasi yang b

## B. LANGKAH KERJA

Adapun langkah kerja yang dilakukan dalam membuat Aplikasi CRUD Data Pegawai, yaitu sebagai berikut:

1. Buat sebuah project dengan nama crud\_pegawai.
2. Buat sebuah database dengan nama db\_pegawai, dan tabel tb\_pegawai dengan struktur database sebagai berikut:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	id	int(11)			No	None		AUTO_INCREMENT
2	nama	varchar(50)	latin1_swedish_ci		No	None		
3	posisi	varchar(50)	latin1_swedish_ci		No	None		
4	gaji	int(11)			No	None		

3. Pada httdocs, buat sebuah folder dengan nama pegawai dengan beberapa file .php sebagai berikut ini:

Name	Date modified	Type
addPegawai.php	30/01/2020 15.46	PHP File
deleteData.php	30/01/2020 19.16	PHP File
editPegawai.php	30/01/2020 19.13	PHP File
getPegawai.php	30/01/2020 01.09	PHP File
koneksi.php	30/01/2020 01.12	PHP File

4. Codingan koneksi.php

```
<?php
    $connect = new mysqli("localhost", "root", "", "db_pegawai");

    if($connect){
    }
    else{
        echo "Connection Failed";
        exit();
    }

?>
```





5. Codingan getPegawai.php

```
<?php
    include 'koneksi.php';

    $hasil = $connect->query("select * from tb_pegawai");

    $result = array();
    while ($dapatData = $hasil->fetch_assoc()){
        $result[] = $dapatData;
    }

    echo json_encode($result);
?>
```

6. codingan deleteData.php

```
<?php

    include 'koneksi.php';

    $id=$_POST['id'];

    $connect->query("DELETE FROM tb_pegawai WHERE id='$id'");

?>
```

7. Codingan addPegawai.php

```
<?php

    include 'koneksi.php';

    $nama = $_POST['namaPegawai'];
    $posisi = $_POST['posisiPegawai'];
    $gaji = $_POST['gajiPegawai'];

    $connect->query("INSERT INTO tb_pegawai (nama, posisi, gaji)
values('".$nama."', '".$posisi."', '".$gaji."')");

?>
```

8. Codingan editPegawai.php

```
<?php

    include 'koneksi.php';

    $id = $_POST['id'];
    $nama = $_POST['namaPegawai'];
    $posisi = $_POST['posisiPegawai'];
    $gaji = $_POST['gajiPegawai'];

    $connect->query("UPDATE tb_pegawai SET nama='$nama',
posisi='$posisi', gaji='$gaji' WHERE id='$id.'");
```



?>

9. Selanjutnya kembali pada project flutter kita
10. tambahkan beberapa library pada pubspec.yaml, kemudian jangan lupa untuk klik Pubspec.yaml

```
cupertino_icons: ^0.1.2  
http: ^0.12.0+2
```

11. Tambahkan beberapa class, sebagai berikut ini:

```
lib  
├── AddData.dart  
├── Detail.dart  
├── editData.dart  
└── main.dart
```

12. Codingan main.dart

```
import 'dart:convert';  
  
import 'package:crud_pegawai/AddData.dart';  
import 'package:crud_pegawai/Detail.dart';  
import 'package:flutter/material.dart';  
import 'package:http/http.dart' as http;  
  
void main() => runApp(MaterialApp(  
  home: MyApp(),  
  debugShowCheckedModeBanner: false,  
));  
  
class MyApp extends StatefulWidget {  
  @override  
  _MyAppState createState() => _MyAppState();  
}  
  
class _MyAppState extends State<MyApp> {  
  Future<List> getData() async {  
    final response =  
      await http.get("http://192.168.43.159/pegawai/getPegawai.php");  
  
    return json.decode(response.body);  
  }  
  
  @override  
  Widget build(BuildContext context) {  
    return MaterialApp(  
      debugShowCheckedModeBanner: false,  
      home: Scaffold(  
        appBar: new AppBar(  

```



```
        title: Text("Data Pegawai"),
        backgroundColor: Colors.green,
    ),
    floatingActionButton: new FloatingActionButton(
        child: new Icon(
            Icons.add,
            color: Colors.black,
        ),
        onPressed: () {
            Navigator.push(context,
                MaterialPageRoute(builder: (context) => AddData()));
        },
    ),
    body: new FutureBuilder<List>(
        future: getData(),
        builder: (context, snapshot) {
            if (snapshot.hasError) print(snapshot.error);
            return snapshot.hasData
                ? new ItemList(
                    list: snapshot.data,
                )
                : new Center(
                    child: new CircularProgressIndicator(),
                );
        },
    ),
);
}
}

class ItemList extends StatelessWidget {
    final List list;

    ItemList({this.list});

    @override
    Widget build(BuildContext context) {
        return new ListView.builder(
            itemCount: list == null ? 0 : list.length,
            itemBuilder: (context, i) {
                return new Container(
                    child: new GestureDetector(
                        onTap: () {
                            Navigator.of(context).push(new
                                MaterialPageRoute(builder: (BuildContext context)
                                    => Detail(
                                        list: list, index: i
                                    )));
                        },
                    child: new Card(
                        color: Colors.white,
                        child: new ListTile(
```



```
        title: new Text(list[i]['nama']),
        leading: new Icon(Icons.list),
        subtitle: new Text("Posisi :
    ${list[i]['posisi']}"),
    ),
  ),
),
);
});
});
}
```

### 13. Codingan editData.dart

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

class AddData extends StatefulWidget {
  @override
  _AddDataState createState() => _AddDataState();
}

class _AddDataState extends State<AddData> {
  TextEditingController namaController = new TextEditingController();
  TextEditingController posisiController = new TextEditingController();
  TextEditingController gajiController = new TextEditingController();

  void addData() {
    var url = "http://192.168.43.159/pegawai/addPegawai.php";
    http.post(url, body: {
      "namaPegawai": namaController.text,
      "posisiPegawai": posisiController.text,
      "gajiPegawai": gajiController.text
    });
  }

  @override
  Widget build(BuildContext context) {
    return new Scaffold(
      appBar: new AppBar(
        title: Text('Add Data Pegawai'),
        backgroundColor: Colors.green,
      ),
      body: Padding(
        padding: const EdgeInsets.all(10.0),
        child: ListView(children: <Widget>[
          new Column(
            children: <Widget>[
              new Padding(padding: new EdgeInsets.only(top:15.0)),
              new TextField(
                controller: namaController,
                decoration: new InputDecoration(
```



```
        hintText: "Input Nama Pegawai",
        labelText: "Nama Pegawai",
        border: new OutlineInputBorder(
          borderRadius: new BorderRadius.circular(20.0))),
    new Padding(padding: new EdgeInsets.all(5.0)),
    new TextField(
      controller: posisiController,
      decoration: new InputDecoration(
        hintText: "Input Posisi Pegawai",
        labelText: "Posisi Pegawai",
        border: new OutlineInputBorder(borderRadius: new
BorderRadius.circular(20.0))),
    new Padding(padding: new EdgeInsets.all(5.0)),
    new TextField(
      controller: gajiController,
      decoration: new InputDecoration(
        hintText: "Input Gaji Pegawai",
        labelText: "Input Gaji",
        border: new OutlineInputBorder(borderRadius: new
BorderRadius.circular(20.0))),
    new Padding(padding: const EdgeInsets.all(5.0)),
    new RaisedButton(
      child: new Text("Add Data"),
      color: Colors.green,
      onPressed: () {

        addData();
        Navigator.of(context).push(new
MaterialPageRoute(builder: (BuildContext context) => new MyApp()));
      },
    ),
  ],
),
),
),
),
);
}
}
```

#### 14. codingan editData.dart

```
import 'package:flutter/material.dart';
import 'package:http/http.dart' as http;
import 'Detail.dart';
import 'main.dart';
import 'package:crud_pegawai/editData.dart';

class EditData extends StatefulWidget {
  final List list;
  final int index;

  EditData({this.list, this.index});
```



```
@override
_EditDataState createState() => _EditDataState();
}

class _EditDataState extends State<EditData> {
  TextEditingController namaController;
  TextEditingController posisiController;
  TextEditingController gajiController;

  void editData(){
    var url = "http://192.168.43.159/pegawai/editPegawai.php";
    http.post(url, body: {
      "id": widget.list[widget.index]['id'],
      "namaPegawai": namaController.text,
      "posisiPegawai": posisiController.text,
      "gajiPegawai": gajiController.text
    });
  }
  @override

  void initState() {
    namaController = new TextEditingController(text:
    widget.list[widget.index]['nama']);
    posisiController = new TextEditingController(text:
    widget.list[widget.index]['posisi']);
    gajiController = new TextEditingController(text:
    widget.list[widget.index]['gaji']);
    super.initState();
  }
  Widget build(BuildContext context) {
    return new Scaffold(
      appBar: new AppBar(
        title: Text('Edit Data Pegawai'),
        backgroundColor: Colors.green,
      ),
      body: Padding(
        padding: const EdgeInsets.all(10.0),
        child: ListView(children: <Widget>[
          new Column(
            children: <Widget>[
              new Padding(padding: new EdgeInsets.only(top: 15.0)),
              new TextField(
                controller: namaController,
                decoration: new InputDecoration(
                  hintText: "Input Nama Pegawai",
                  labelText: "Nama Pegawai",
                  border: new OutlineInputBorder(
                    borderRadius: new BorderRadius.circular(20.0))),
              ),
              new Padding(padding: new EdgeInsets.only(top: 15.0)),
              new TextField(
                controller: posisiController,
```



```
        decoration: new InputDecoration(
          hintText: "Input Posisi Pegawai",
          labelText: "Posisi Pegawai",
          border: new OutlineInputBorder(
            borderRadius: new
BorderRadius.circular(20.0))),
      ),
      new Padding(padding: new EdgeInsets.only(top: 15.0)),
      new TextField(
        controller: gajiController,
        decoration: new InputDecoration(
          hintText: "Input Gaji Pegawai",
          labelText: "Gaji Pegawai",
          border: new OutlineInputBorder(
            borderRadius: new
BorderRadius.circular(20.0))),
      ),
      new Padding(padding: new EdgeInsets.only(top: 15.0)),
      new RaisedButton(
        child: new Text(' Edit Data'),
        color: Colors.blueAccent,
        onPressed: () {
          editData();
          Navigator.of(context).push(new MaterialPageRoute(
            builder: (BuildContext context) => new MyApp()));
        },
      ),
    ],
  ),
),
),
);
}
```

## 15. Codingan detail.dart

```
import 'package:flutter/material.dart';
import 'editData.dart';
import 'package:http/http.dart' as http;
import 'main.dart';

class Detail extends StatefulWidget {
  List list;
  int index;

  Detail({this.list, this.index});

  @override
  _DetailState createState() => _DetailState();
}

class _DetailState extends State<Detail> {
```



```
void deletedata() {
    var url = "http://192.168.43.159/pegawai/deleteData.php";
    http.post(url, body: {'id': widget.list[widget.index]['id']});
}

void confirm() {
    AlertDialog alertDialog = new AlertDialog(
        content: new Text(
            "Are You Sure Want to Delete
            '${widget.list[widget.index]['nama']}'"),
        actions: <Widget>[
            new RaisedButton(
                child: new Text(
                    'OK DELETE!',
                    style: TextStyle(color: Colors.black),
                ),
                color: Colors.red,
                onPressed: () {
                    deletedata();
                    Navigator.of(context).push(new MaterialPageRoute(
                        builder: (BuildContext context) => new MyApp()));
                }),
            new RaisedButton(
                child: new Text(
                    'CANCEL',
                    style: TextStyle(color: Colors.black),
                ),
                color: Colors.green,
                onPressed: () => Navigator.pop(context),
            ),
        ],
    );
    showDialog(context: context, child: alertDialog);
}

@override
Widget build(BuildContext context) {
    return new Scaffold(
        appBar: new AppBar(
            title: new Text("${widget.list[widget.index]['posisi']}"),
            backgroundColor: Colors.green,
        ),
        body: new ListView(
            children: <Widget>[
                new Container(
                    padding: const EdgeInsets.all(10.0),
                    height: 500.0,
                    child: Row(
                        children: <Widget>[
                            new Expanded(
                                child: Card(
                                    child: new Column(
```





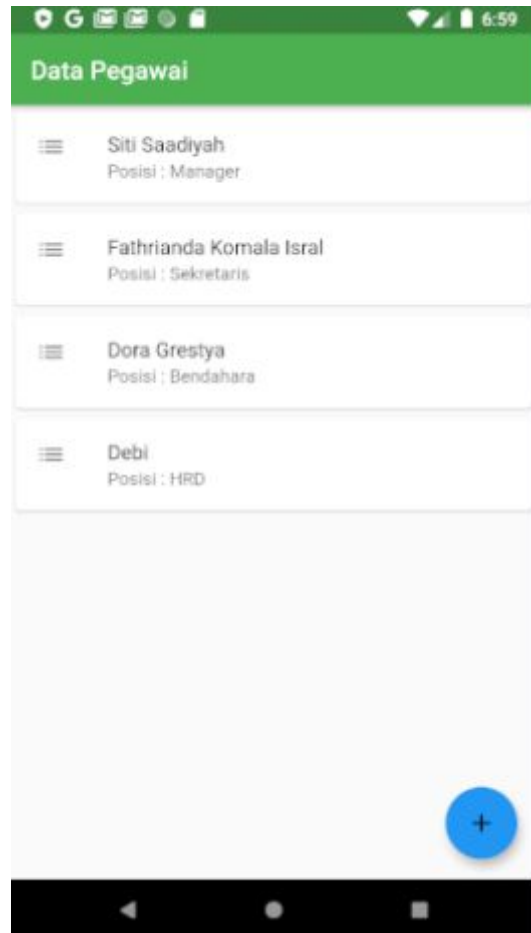
```
children: <Widget>[
  new Padding(
    padding: const EdgeInsets.only(top: 30.0)),
  new Text(
    widget.list[widget.index]['nama'],
    style: TextStyle(
      fontSize: 20.0,
      fontWeight: FontWeight.bold,
    ),
  ),
  new Text(
    widget.list[widget.index]['posisi'],
    style: TextStyle(
      fontSize: 18.0,
      fontWeight: FontWeight.bold,
    ),
  ),
  new Text(
    widget.list[widget.index]['gaji'],
    style: TextStyle(
      fontSize: 18.0,
      fontWeight: FontWeight.bold,
    ),
  ),
  new Padding(padding: const EdgeInsets.only(top:
30.0)),
    new Row(mainAxisAlignment:
MainAxisAlignment.center,
    children: <Widget>[
      new RaisedButton(child: new Text('Edit'),
        color: Colors.deepOrangeAccent,
        onPressed: () =>
Navigator.of(context).push(new
MaterialPageRoute(
          builder: (BuildContext context) =>
            new EditData(list: widget.list, index:
widget.index),
        )),),
      Padding( padding: const
EdgeInsets.all(5.0)),
      new RaisedButton(child: new Text('Delete'),
        color: Colors.blue,
        onPressed: () => confirm()),),
    ],)
  ],
),
))
],
),
),
1,
),
1,
),
),
```



```
    );  
  }  
}
```

16. Jika sudah semuanya, maka aplikasi pegawai sudah dapat dijalankan. Untuk catatan, setting IP untuk penggunaan koneksi yang sama antara PC dan emulator yang digunakan.

Berikut tampilan aplikasi:





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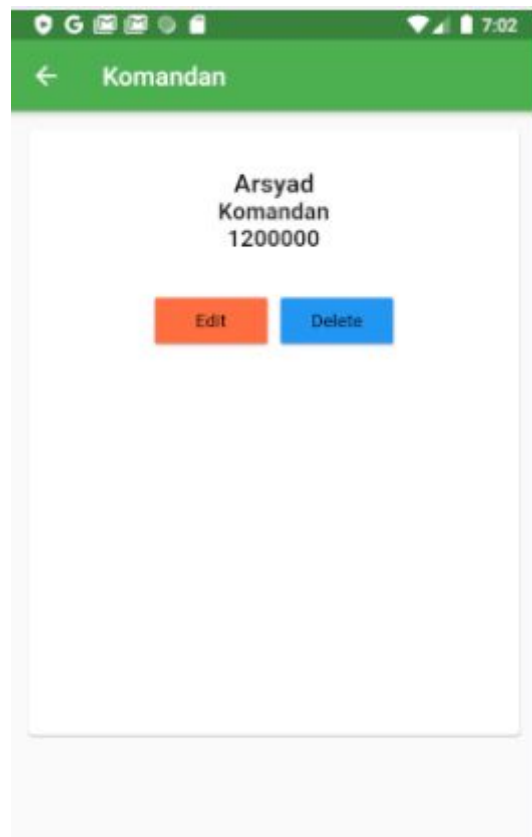
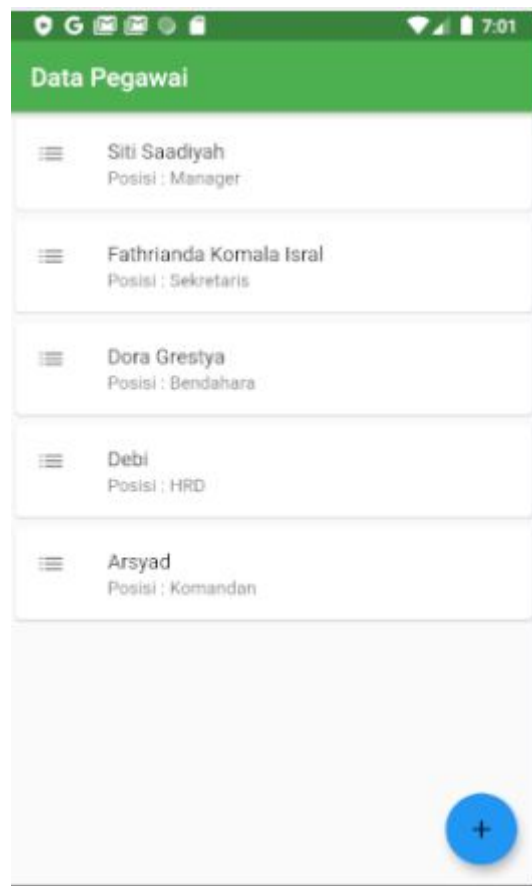
The screenshot shows a mobile application interface with a green header bar containing a back arrow and the text "Add Data Pegawai". Below the header, there are three input fields with labels: "Nama Pegawai" (containing "Arsyad"), "Posisi Pegawai" (containing "Komandan"), and "Input Gaji" (containing "1200000"). At the bottom of the form, there is a green button labeled "Add Data". The status bar at the top of the phone screen shows various icons and the time "7:00".



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← Edit Data Pegawai

Nama Pegawai  
Arsyad Hamidi

Posisi Pegawai  
Komandan

Gaji Pegawai  
1200000

Edit Data

← Komandan

Arsyad Hamidi  
Komandan  
1200000

Edit Delete

Are You Sure Want to Delete 'Arsyad Hamidi'

OK DELETE! CANCEL