



**MODUL PEMROGRAMAN MOBILE
CIM 430**

**MODUL PRAKTIKUM 5
*DEVELOPMENT OF USER EXPERIENCE DESIGN
FOR MOBILE APPLICATION ANDROID***

DISUSUN OLEH

- 1. SAWALI WAHYU, S.Kom., M.Kom**
- 2. JEFRY SUNUPURWA ASRI, S.Kom., M.Kom**
- 3. IKSAN RAMADHAN, S.Kom., M.Kom**

**UNIVERSITAS ESA UNGGUL
FAKULTAS ILMU KOMPUTER
TAHUN 2021**

DEVELOPMENT OF USER EXPERIENCE DESIGN FOR MOBILE APPLICATION ANDROID

A. Kemampuan Akhir Yang Diharapkan

Setelah mempelajari modul ini, diharapkan mahasiswa mampu :

1. Mahasiswa Mampu Membuat Design UX Untuk Aplikasi Mobile Android
2. Mahasiswa Mampu Menerapkan Widget Pendukung Untuk Membuat Design UX

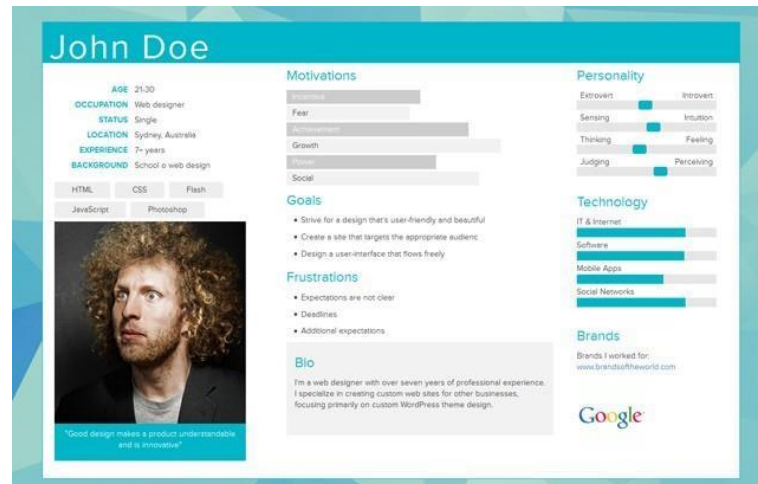
B. Content of Material

User Experience Design atau yang biasa disebut UX Design adalah sebuah proses yang meningkatkan kepuasan pengguna (pengguna aplikasi, pengunjung website) dalam meningkatkan kegunaan dan kesenangan yang diberikan dalam interaksi antara pengguna dan produk.

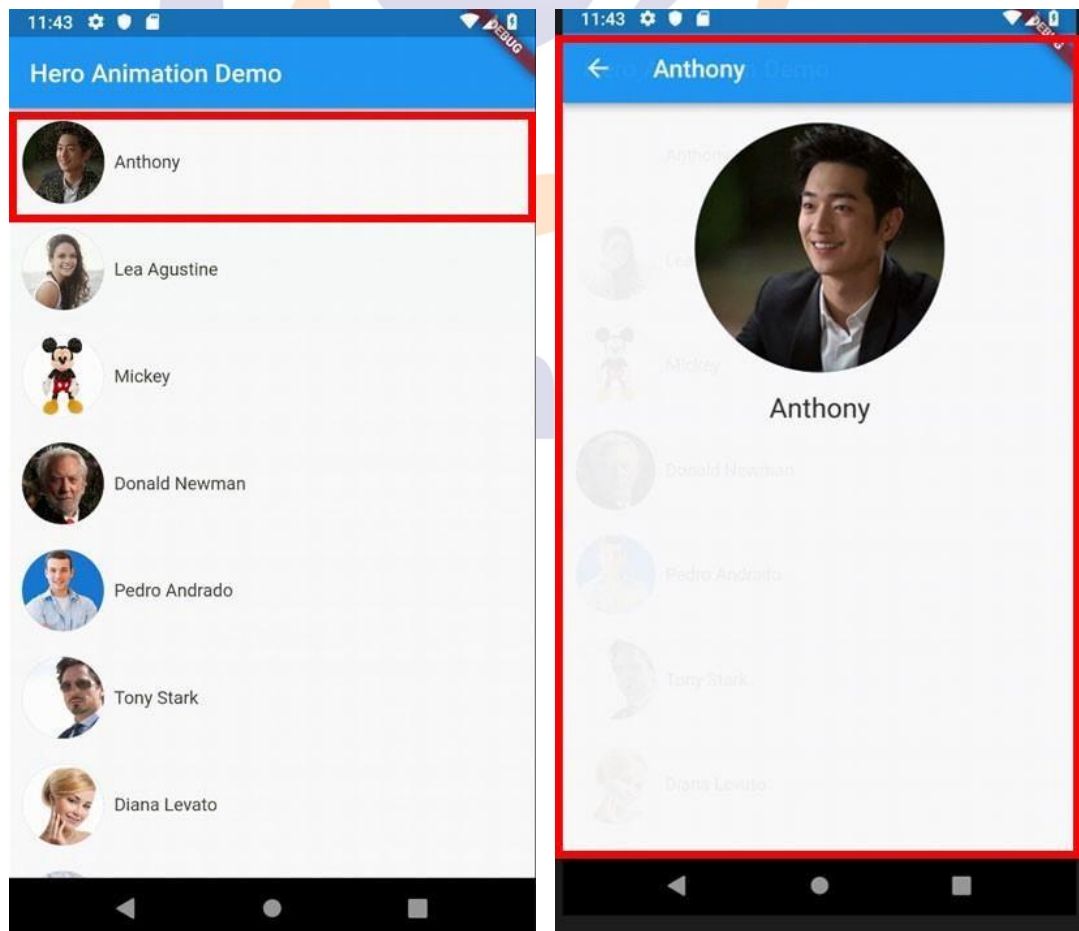
Berbeda dengan *User Interface Design* (UI Design) yang didefinisikan sebagai media interaksi *user* dengan sistem dengan mengedepankan keindahan tampilan seperti pemilihan warna, bentuk, tipe *typeface-font*, UX Design mengedepankan pengalaman *user* dalam menggunakan sebuah sistem. Untuk menunjang pengalaman *user* yang baik, maka UX Design memerlukan UI Design dan tujuan bisnis sehingga dapat dibuat sebuah pengalaman yang sesuai. Sehingga UI Design adalah salah satu bagian dari UX Design. Bagian UX Design lainnya antara lain *User Persona* sebagai data analisa dari *user* yang akan menggunakan sistem yang akan dikembangkan.



Adapun komponen-komponen UI seperti Form, SeekBar, RadioButton, CheckBox, Switch, dan lain sebagainya dapat digunakan untuk membuat UX Design lebih menarik. Tidak hanya itu, penggunaan menu navigasi juga mempengaruhi pengalaman *user* dalam menggunakan aplikasinya.



PRAKTIKUM MEMBUAT WIDGET LIST



MAIN :

```
1 import 'package:flutter/material.dart';
2 import './user_model.dart';
3 import './user.dart';
4
5 void main() => runApp(MyApp());
6
7 class MyApp extends StatelessWidget {
8   @override
9   Widget build(BuildContext context) {
10     return MaterialApp(
11       home: Scaffold(
12         appBar: AppBar(
13           title: Text('Hero Animation Demo'),
14         ), // AppBar
15         body: ListView(
16           children: userlist.map((user) => User(user)).toList(),
17         ), // ListView
18       ), // Scaffold
19     ); // MaterialApp
20   }
21 }
22
```

USER MODEL :

```
1 class UserModel {
2   final int id;
3   final String name;
4   final String avatar;
5   UserModel(this.id, this.name, this.avatar);
6 }
7
8 final List<UserModel> userlist = [
9   UserModel(1, "Anthony",
10     "https://cdn.idntimes.com/content-images/post/20180703/0848c3708f8518f917e8747d6e745034.jpg"),
11   UserModel(2, "Lea Agustine",
12     "https://media.glamour.com/photos/5696d70301ed531c6f00b97d/master/w_1280,c_limit/sex-love-life-2015-05-woman-1-main.jpg"),
13   UserModel(3, "Mickey",
14     "https://lumiene-a.akamaihd.net/v1/images/file_493bd190.jpeg?width=1200&region=0%2C0%2C2000%2C2000&quality=8"),
15   UserModel(4, "Donald Newman",
16     "https://www.biography.com/.image/ar_1:1%2Cc_fill%2Ccs_srgb%2Cg_face%2Cq_auto:good%2Cw_300/MTOwMTAmNTN2NjUyMjc3MjY2/donald-sutherland-gettyimages-495892778_1600.jpg.jpg"),
17   UserModel(5, "Pedro Andrade",
18     "http://pluspng.com/img-png/man-png-man-png-pic-594.png"),
19   UserModel(6, "Tony Stark",
20     "https://www.hindustantimes.com/rf/image_size_960x540/HI/p2/2018/04/03/Pictures/_56db43e2-3722-11e8-8aa5-05fdb8d0ae52.jpg"),
21   UserModel(7, "Diana Levato",
22     "https://alexparkinson34.files.wordpress.com/2012/05/women-hair-styles_2560x1600_83909.jpg"),
23   UserModel(8, "Lively Claudia",
24     "https://cdn.shopify.com/s/files/1/1001/9644/files/WhatsNewWomen_700x.jpg?v=1536608955"),
25   UserModel(9, "Solid Snake",
26     "https://vignette.wikia.nocookie.net/metalgear/images/b/be/WGS2SnakePP.png/revision/latest/scale-to-width-down/350?cb=20130626062457"),
27   UserModel(10, "Superman",
28     "https://pmcvariety.files.wordpress.com/2013/06/manofsteel_close.jpg?w=700&h=393&crop=1")
29 ];
30
```

USER DETAIL :

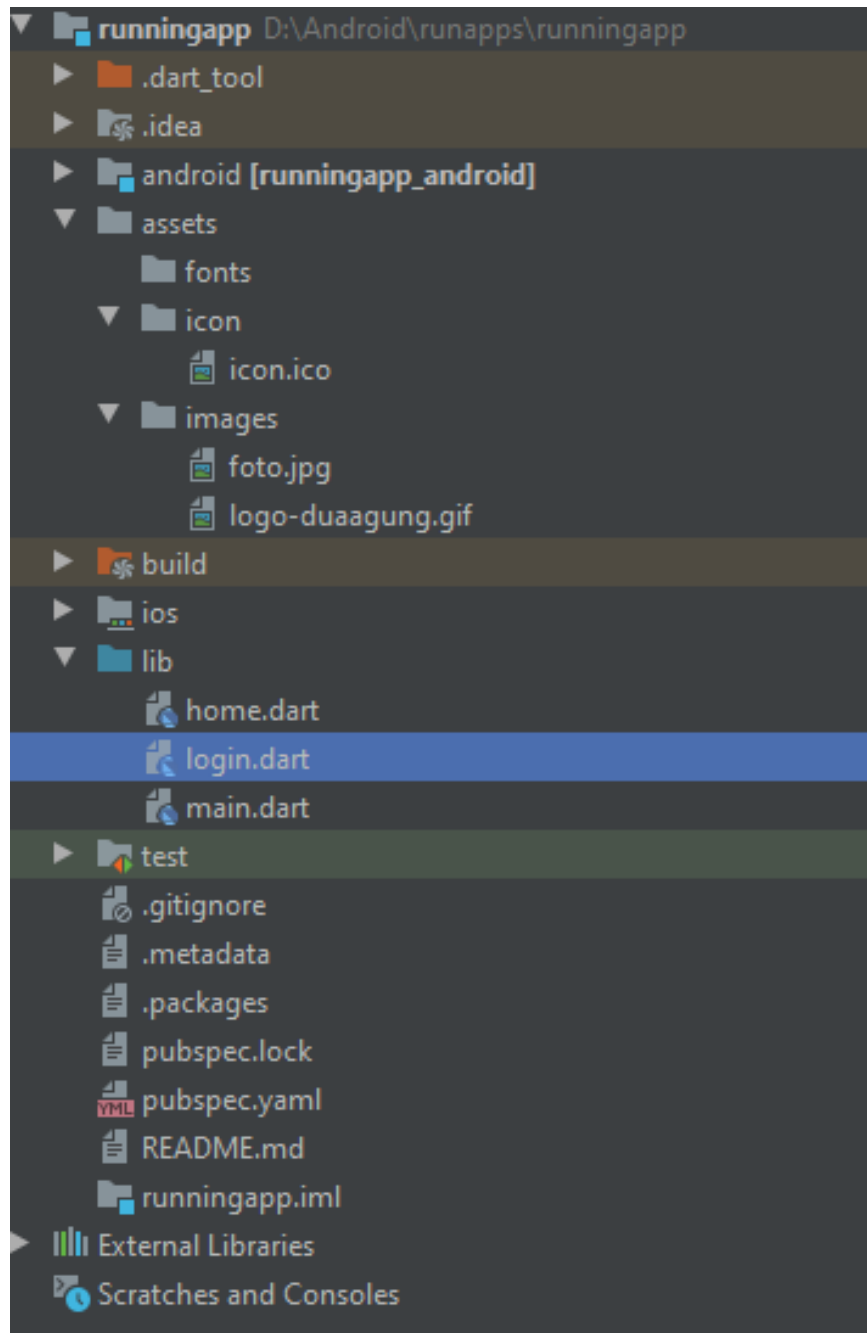
```
1  import "package:flutter/material.dart";
2  import "user_model.dart";
3
4  class UserDetails extends StatelessWidget {
5      final UserModel _user;
6
7      UserDetails(this._user);
8
9      @override
10     Widget build(BuildContext context) {
11         return Scaffold(
12             appBar: AppBar(
13                 title: Text(_user.name),
14             ), // AppBar
15             body: Center(
16                 child: Column(
17                     children: <Widget>[
18                         Container(
19                             padding: EdgeInsets.all(16),
20                             child: Hero(
21                                 tag: "avatar_" + _user.id.toString(),
22                                 child: CircleAvatar(
23                                     radius: 100,
24                                     backgroundImage: NetworkImage(_user.avatar),
25                                 ), // CircleAvatar
26                             ), // Hero
27                         ), // Container
28                         Text(
29                             _user.name,
30                             style: TextStyle(fontSize: 22),
31                         ), // Text
32                     ], // <Widget>[]
33                 ), // Column
34             ), // Center
35         ); // Scaffold
36     }
37 }
38
```

LIST USER :

```
1  import "package:flutter/material.dart";
2  import "../user_model.dart";
3  import "../user_detail.dart";
4
5  class User extends StatelessWidget {
6    final UserModel _user;
7
8    User(this._user);
9
10   @override
11   Widget build(BuildContext context) {
12     return InkWell(
13       onTap: () => Navigator.push(
14         context, MaterialPageRoute(builder: (context) => UserDetail(_user))),
15       child: Container(
16         padding: EdgeInsets.all(10),
17         child: Row(
18           children: <Widget>[
19             Hero(
20               tag: "avatar_" + _user.id.toString(),
21               child: CircleAvatar(
22                 radius: 32,
23                 backgroundImage: NetworkImage(_user.avatar),
24               ), // CircleAvatar
25             ), // Hero
26             Padding(
27               padding: const EdgeInsets.all(8.0),
28               child: Text(_user.name),
29             ) // Padding
30           ], // <Widget>[]
31         ), // Row
32       ), // Container
33     ); // InkWell
34   }
35 }
36
```

PRAKTIKUM MEMBUAT HALAMAN LOGIN DAN IDENTITAS

1) Buatlah folder Assets didalam folder root flutter seperti dibawah ini :



2) Edit file pubspec.yaml menjadi seperti ini :

```
environment:
  sdk: ">=2.7.0 <3.0.0"

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: ^1.0.2

dev_dependencies:
  flutter_test:
    sdk: flutter
  flutter_launcher_icons: ^0.9.0

flutter_icons:
  android: true
  ios: true
  image_path: "assets/icon/icon.ico"

# For information on the generic Dart part of this file, see the
# following page: https://dart.dev/tools/pub/pubspec

# The following section is specific to Flutter.
flutter:

  # The following line ensures that the Material Icons font is
  # included with your application, so that you can use the icons in
  # the material Icons class.
  uses-material-design: true

  # To add assets to your application, add an assets section, like this:
  assets:
    - assets/images/
```


3) Buatlah 3 file ini di dalam folder lib

home.dart	23/03/2021 22:06	DART File	3 KB
login.dart	23/03/2021 21:26	DART File	3 KB
main.dart	23/03/2021 21:18	DART File	1 KB

4) Buat main.dart

```
import 'package:flutter/cupertino.dart';
import 'package:flutter/material.dart';
import 'home.dart';
import 'login.dart';

void main() => runApp(new MyApp());

class MyApp extends StatelessWidget {
  final routes = <String, WidgetBuilder>{
    LoginPage.tag: (context) => LoginPage(),
    HomePage.tag: (context) => HomePage(),
  };

  @override
  Widget build(BuildContext context) {
    // TODO: implement build
    return new MaterialApp(
      title: 'Mobile Programming',
      debugShowCheckedModeBanner: false,
      theme: new ThemeData(primarySwatch: Colors.orange),
      home: new LoginPage(),
      routes: routes,
    ); // MaterialApp
    throw UnimplementedError();
  }
}
```

5) Buat login.dart

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

class LoginPage extends StatefulWidget {
  static String tag = 'login';

  @override
  _LoginPageState createState() => new _LoginPageState();
}

class _LoginPageState extends State<LoginPage> {
  @override
  Widget build(BuildContext context) {
    final logo = Hero(
      tag: 'hero',
      child: CircleAvatar(
        backgroundColor: Colors.transparent,
        radius: 48.0,
        child: Image.asset('assets/images/logo-duaagung.gif'),
      ), // CircleAvatar
    ); // Hero

    final email = TextFormField(
      keyboardType: TextInputType.emailAddress,
      autofocus: false,
      initialValue: 'email@example.com',
      decoration: InputDecoration(
        hintText: 'Email',
        contentPadding: EdgeInsets.fromLTRB(20.0, 10.0, 20.0, 10.0),
        border: OutlineInputBorder(borderRadius: BorderRadius.circular(32.0)),
      ), // InputDecoration
    ); // TextFormField
```

```

final password = TextFormField(
  autofocus: false,
  initialValue: 'example password',
  obscureText: true,
  decoration: InputDecoration(
    hintText: 'Password',
    contentPadding: EdgeInsets.fromLTRB(20.0, 10.0, 20.0, 10.0),
    border: OutlineInputBorder(borderRadius: BorderRadius.circular(32.0)),
  ), // InputDecoration
); // TextFormField

final loginButton = Padding(
  padding: EdgeInsets.symmetric(vertical: 16.0),
  child: Material(
    borderRadius: BorderRadius.circular(30.0),
    shadowColor: Colors.lightBlueAccent.shade100,
    elevation: 5.0,
    child: MaterialButton(
      minWidth: 200.0,
      height: 42.0,
      onPressed: () {
        Navigator.of(context).pushNamed(HomePage.tag);
      },
      color: Colors.lightBlueAccent,
      child: Text(
        'Log In',
        style: TextStyle(color: Colors.white),
      ), // Text
    ), // MaterialButton
  ), // Material
); // Padding

```

```

final forgotLabel = FlatButton(
  child: Text(
    'Forgot Password',
    style: TextStyle(color: Colors.black54),
  ), // Text
  onPressed: () {},
); // FlatButton

return Scaffold(
  backgroundColor: Colors.white,
  body: Center(
    child: ListView(
      shrinkWrap: true,
      padding: EdgeInsets.only(left: 24.0, right: 24.0),
      children: <Widget>[
        logo,
        SizedBox(height: 48.0),
        email,
        SizedBox(height: 8.0),
        password,
        SizedBox(height: 24.0),
        loginButton,
        forgotLabel
      ], // <Widget>[]
    ), // ListView
  ), // Center
); // Scaffold
}
}

```

6) Buat home.dart

```
import 'login.dart';
import 'home.dart';
import 'package:flutter/material.dart';
import 'package:flutter/services.dart';

class HomePage extends StatelessWidget {
  static String tag = 'home';

  @override
  Widget build(BuildContext context) {
    final home = Hero(
      tag: 'hero',
      child: Padding(
        padding: EdgeInsets.all(16.0),
        child: CircleAvatar(
          radius: 72.0,
          backgroundColor: Colors.transparent,
          backgroundImage: AssetImage('assets/images/foto.jpg'),
        ), // CircleAvatar
      ), // Padding
    ); // Hero

    final welcome = Padding(
      padding: EdgeInsets.all(8.0),
      child: Text(
        'Welcome!',
        style: TextStyle(
          fontSize: 28.0,
          color: Colors.white,
        ), // TextStyle
      ), // Text
    ); // Padding

    final lorem = Padding(
      padding: EdgeInsets.all(8.0),
      child: Text(
        'welcome',
        style: TextStyle(color: Colors.white),
      ), // Text
    ); // Padding
```

```

final body = Container(
  width: MediaQuery.of(context).size.width,
  padding: EdgeInsets.all(28.0),
  decoration: BoxDecoration(
    gradient: LinearGradient(colors: [
      Colors.blue,
      Colors.lightBlueAccent,
    ]), // LinearGradient
  ), // BoxDecoration
  child: Column(
    mainAxisAlignment: MainAxisAlignment.center,
    children: <Widget>[home, welcome, lorem,
      Center(
        child: Material(
          borderRadius: BorderRadius.circular(30.0),
          shadowColor: Colors.lightBlueAccent.shade100,
          elevation: 5.0,
          child: MaterialButton(
            minWidth: 200.0,
            height: 42.0,
            onPressed: () {
              //Navigator.of(context).pushNamed(LoginPage.tag);
              SystemChannels.platform.invokeMethod('SystemNavigator.pop');
            },
            color: Colors.lightBlueAccent,
            child: Text(
              'Exit',
              style: TextStyle(color: Colors.white),
            ), // Text
          ), // MaterialButton
        ), // Material
      ), // Center
    ], // <Widget>[]
  ), // Column
); // Container

return Scaffold(
  body: body,
);
}
}

```

OUTPUT APLIKASI MOBILE :

