

4/23/2024

Modul Praktikum

Pemrograman Mobile

Pertemuan 6

Pokok Bahasan :

Membuat Formulir

TextField Widget

RadioListTile Widget

Checkbox Widget

DropdownButton Widget

showDatePicker

showTimePicker

AlertDialog Widget

Mengatur Type Keyboard saat input data

Validasi inputan

Membuat Class Model

Menyimpan hasil inputan kedalam list

Menghapus data dari list

Kebutuhan

Komputer / Laptop

Android Studio / Visual Studio Code

1. Pastikan visual studio code dan Dart sudah siap di komputer anda
2. Jalankan Visual Studio Code
3. Buat project flutter baru dengan cara **View – Command Pallete – Flutter:New Project – Application** – arahkan ke folder tempat aplikasi akan disimpan – select a folder to create the project in – beri nama file – tekan enter

4. Buat file dart baru beri nama **model.dart****Kode Program**

```

lib\model.dart

1 import 'package:flutter/material.dart';
2
3 class Pendaftaran {
4   BuildContext context;
5   String nama = "";
6   String email = "";
7   String noTelp = "";
8   String jenisKelamin = "";
9   String bahasa = "";
10  String agama = "";
11  String tanggalDaftar = "";
12  String jamDaftar = "";
13
14  Pendaftaran(
15    this.context,
16    this.nama,
17    this.email,
18    this.noTelp,
19    this.jenisKelamin,
20    this.bahasa,
21    this.agama,
22    this.tanggalDaftar,
23    this.jamDaftar,
24  );
25
26  bool sudahValid() {
27    if (nama.isEmpty) {
28      tampilkanPesan("Nama Wajib Diisi");
29      return false;
30    }
31    if (email.isEmpty) {
32      tampilkanPesan("Email Wajib Diisi");
33      return false;
34    }
35    if (noTelp.isEmpty) {
36      tampilkanPesan("Nomor Telpon Wajib Diisi");
37      return false;
38    }
39    if (jenisKelamin == "null") {
40      tampilkanPesan("Silakan pilih salah satu jenis kelamin");
41      return false;
42    }
43    if (bahasa == "[]") {
44      tampilkanPesan("Wajib Memilih Minimal Satu Bahasa ");
45      return false;
46    }
47
48    if (agama == "null") {
49      tampilkanPesan("Wajib Memilih Satu Agama");
50      return false;
51    }
52    if (tanggalDaftar.isEmpty) {
53      tampilkanPesan("Tanggal Daftar Wajib Diisi");
54      return false;
55    }
56    if (jamDaftar.isEmpty) {
57      tampilkanPesan("Jam Daftar Wajib Diisi");
58    }
59  }
60}

```

```
4/23/24, 7:43 AM                                         model.dart
58     return false;
59   }
60
61   return true;
62 }
63
64 void tampilkanPesan(String s) {
65   ScaffoldMessenger.of(context).showSnackBar(SnackBar(content: Text(s)));
66 }
67 }
68
69 List<Pendaftaran> pendaftaranList = [];
70 }
```

5. Buat file dart baru berinama **agama.dart**

Kode Program

```
lib\agama.dart

1 import 'package:flutter/material.dart';
2
3 String? agamaDipilih;
4
5 class Agama extends StatefulWidget {
6   const Agama({super.key});
7
8   @override
9   State<Agama> createState() => _AgamaState();
10 }
11
12 class _AgamaState extends State<Agama> {
13   List<String> agamaList = [
14     "Islam",
15     "Katolik",
16     "Protestan",
17     "Hindu",
18     "Budha",
19     "Konghucu",
20     "Penganut Kepercayaan",
21   ];
22
23   @override
24   Widget build(BuildContext context) {
25     return DropdownButton(
26       hint: Text("Silakan Pilih Agama Yang Anda Anut"),
27       value: agamaDipilih,
28       items: agamaList
29         .map((e) => DropdownMenuItem(
30           child: Text(e),
31           value: e,
32           ))
33         .toList(),
34       onChanged: (value) {
35         setState(() {
36           agamaDipilih = value;
37         });
38       },
39     );
40   }
41 }
```

6. Buat file dart baru beri nama **kemampuanBerbahasa.dart**

Kode Program	
	lib\kemampuanBerbahasa.dart
1	<code>import 'package:flutter/material.dart';</code>
2	
3	<code>List<String> bahasaDipilihList = [];</code>
4	
5	<code>class KemampuanBerbahasa extends StatefulWidget {</code>
6	<code>const KemampuanBerbahasa({super.key});</code>
7	
8	<code>@override</code>
9	<code>State<KemampuanBerbahasa> createState() => _KemampuanBerbahasaState();</code>
10	<code>}</code>
11	
12	<code>class _KemampuanBerbahasaState extends State<KemampuanBerbahasa> {</code>
13	<code>List<String> bahasaList = [</code>
14	<code> "Indonesia",</code>
15	<code> "Inggris",</code>
16	<code> "Arab",</code>
17	<code> "Sunda",</code>
18	<code> "Jawa",</code>
19	<code> "Madura",</code>
20	<code> "Jepang",</code>
21	<code> "Korea",</code>
22	<code> "Mandarin",</code>
23	<code>];</code>
24	<code>@override</code>
25	<code>Widget build(BuildContext context) {</code>
26	<code> return Column(</code>
27	<code> mainAxisAlignment: MainAxisAlignment.start,</code>
28	<code> children: [</code>
29	<code> Text("Kemampuan Berbahasa"),</code>
30	<code> Container(</code>
31	<code> height: 90,</code>
32	<code> child: GridView(</code>
33	<code> gridDelegate: SliverGridDelegateWithFixedCrossAxisCount(</code>
34	<code> crossAxisCount: 3, childAspectRatio: 4 / 1),</code>
35	<code> children: bahasaList.map((e) => OpsiBahasa(strBahasa: e)).toList(),</code>
36	<code>),</code>
37	<code>),</code>
38	<code>],</code>
39	<code>);</code>
40	<code>}</code>
41	<code>}</code>
42	
43	<code>class OpsiBahasa extends StatefulWidget {</code>
44	<code> final String strBahasa;</code>
45	<code> const OpsiBahasa({</code>
46	<code> super.key,</code>
47	<code> required this.strBahasa,</code>
48	<code>});</code>
49	
50	<code>@override</code>
51	<code>State<OpsiBahasa> createState() => _OpsiBahasaState();</code>
52	<code>}</code>
53	
54	<code>class _OpsiBahasaState extends State<OpsiBahasa> {</code>
55	<code> bool? opsiDipilih = false;</code>
56	
57	<code>@override</code>

```
4/23/24, 7:49 AM                                         kemampuanBerbahasa.dart
58   Widget build(BuildContext context) {
59     return Row(
60       children: [
61         Checkbox(
62           value: opsiDipilih,
63           onChanged: (value) {
64             setState(() {
65               opsiDipilih = value;
66               if (value == true) {
67                 bahasaDipilihList.add(widget.strBahasa);
68               } else {
69                 bahasaDipilihList.remove(widget.strBahasa);
70               }
71             });
72           },
73           ),
74           Text(widget.strBahasa),
75         ],
76       );
77     }
78   }
79 }
```

7. Buat file dart baru beri nama **tanggalDaftar.dart**

Kode Program

```
lib\tanggalDaftar.dart

1 import 'package:flutter/material.dart';
2
3 TextEditingController tanggalDaftarController = TextEditingController();
4
5 class TanggalDaftar extends StatefulWidget {
6   const TanggalDaftar({super.key});
7
8   @override
9   State<TanggalDaftar> createState() => _TanggalDaftarState();
10 }
11
12 class _TanggalDaftarState extends State<TanggalDaftar> {
13   @override
14   Widget build(BuildContext context) {
15     return TextField(
16       controller: tanggalDaftarController,
17       decoration: InputDecoration(
18         label: Text("Tanggal Daftar"),
19         suffixIcon: IconButton(
20           onPressed: () {
21             pilihTanggal();
22           },
23           icon: Icon(Icons.date_range),
24         ),
25       ),
26     );
27   }
28
29 Future<void> pilihTanggal() async {
30   DateTime? tglDidapat;
31
32   tglDidapat = await showDatePicker(
33     context: context,
34     firstDate: DateTime(2024),
35     lastDate: DateTime(2025),
36   );
37
38   if (tglDidapat.toString() != "null") {
39     tanggalDaftarController.text = tglDidapat.toString().substring(0, 10);
40   }
41 }
42 }
43 }
```

8. Buat file dart baru beri nama **jamDaftar.dart**

Kode Program

```
lib\jamDaftar.dart

1 import 'package:flutter/material.dart';
2
3 TextEditingController jamDaftarController = TextEditingController();
4
5 class JamDaftar extends StatefulWidget {
6   const JamDaftar({super.key});
7
8   @override
9   State<JamDaftar> createState() => JamDaftarState();
10 }
11
12 class JamDaftarState extends State<JamDaftar> {
13   @override
14   Widget build(BuildContext context) {
15     return TextField(
16       controller: jamDaftarController,
17       decoration: InputDecoration(
18         label: Text("Jam Daftar"),
19         suffixIcon: IconButton(
20           onPressed: () {
21             pilihTanggal();
22           },
23           icon: Icon(Icons.timer),
24         ),
25       ),
26     );
27   }
28
29 Future<void> pilihTanggal() async {
30   TimeOfDay? tglDidapat;
31
32   tglDidapat =
33     await showTimePicker(context: context, initialTime: TimeOfDay.now());
34
35   if (tglDidapat.toString() != "null") {
36     jamDaftarController.text = tglDidapat
37       .toString()
38       .replaceAll('TimeOfDay(', '')
39       .replaceAll(')', '');
40   }
41 }
42 }
43 }
```

9. Buat file dart baru berinama **dataPendaftaran.dart****Kode Program**

```

lib\dataPendaftaran.dart

1 import 'package:flutter/material.dart';
2 import 'package:flutter_formulir/model.dart';
3
4 class DataPendaftaran extends StatefulWidget {
5   const DataPendaftaran({super.key});
6
7   @override
8   State<DataPendaftaran> createState() => _DataPendaftaranState();
9 }
10
11 class _DataPendaftaranState extends State<DataPendaftaran> {
12   @override
13   Widget build(BuildContext context) {
14     return Scaffold(
15       appBar: AppBar(
16         title: Text("Data Pendaftaran"),
17       ),
18       body: ListView.builder(
19         itemCount: pendaftaranList.length,
20         itemBuilder: (context, index) => Card(
21           child: ListTile(
22             title: Text(pendaftaranList[index].nama),
23             subtitle: Column(
24               crossAxisAlignment: CrossAxisAlignment.start,
25               children: [
26                 Text(pendaftaranList[index].email),
27                 Text(pendaftaranList[index].noTelp),
28                 Text(pendaftaranList[index].jenisKelamin),
29                 Text(pendaftaranList[index].bahasa),
30                 Text(pendaftaranList[index].agama),
31                 Text(pendaftaranList[index].tanggalDaftar),
32                 Text(pendaftaranList[index].jamDaftar),
33               ],
34             ),
35             trailing: IconButton(
36               onPressed: () {
37                 hapusData(index);
38               },
39               icon: Icon(
40                 Icons.delete,
41               ),
42             ),
43             ),
44             ),
45           ),
46         );
47   }
48
49 void hapusData(int index) {
50   showDialog(
51     context: context,
52     builder: (context) => AlertDialog(
53       title: Text("Hapus Data"),
54       content: Text(
55         "Apakah anda yakin akan hapus data ${pendaftaranList[index].nama} ?"),
56       actions: [
57         ElevatedButton(

```

```
4/23/24, 7:54 AM           dataPendaftaran.dart

58     onPressed: () {
59         setState(() {
60             pendaftaranList.removeAt(index);
61             Navigator.pop(context);
62         });
63     },
64     child: Text("Ya"),
65 ),
66 ElevatedButton(
67     onPressed: () {
68         Navigator.pop(context);
69     },
70     child: Text("Tidak"),
71 ),
72 ],
73 ),
74 );
75 }
76 }
77 }
```

10. Buka File **main.dart** kemudian edit menjadi seperti dibawah ini

Kode Program

```
lib\main.dart

1 import 'package:flutter/material.dart';
2 import 'package:flutter/widgets.dart';
3 import 'package:flutter_formulir/agama.dart';
4 import 'package:flutter_formulir/dataPendaftaran.dart';
5 import 'package:flutter_formulir/jamDaftar.dart';
6 import 'package:flutter_formulir/kemampuanBerbahasa.dart';
7 import 'package:flutter_formulir/model.dart';
8 import 'package:flutter_formulir/tanggalDaftar.dart';
9
10 void main(List<String> args) {
11   runApp(MyApp());
12 }
13
14 class MyApp extends StatelessWidget {
15   const MyApp({super.key});
16
17   @override
18   Widget build(BuildContext context) {
19     return MaterialApp(
20       theme: ThemeData(
21         appBarTheme: AppBarTheme(
22           backgroundColor: Colors.teal,
23           foregroundColor: Colors.white,
24         ),
25         elevatedButtonTheme: ElevatedButtonThemeData(
26           style: ButtonStyle(
27             backgroundColor: MaterialStatePropertyAll(Colors.teal),
28             foregroundColor: MaterialStatePropertyAll(Colors.white),
29             ),
30             ),
31             ),
32             debugShowCheckedModeBanner: false,
33             home: MyHomePage(),
34           );
35     }
36   }
37
38 class MyHomePage extends StatefulWidget {
39   const MyHomePage({super.key});
40
41   @override
42   State<MyHomePage> createState() => _MyHomePageState();
43 }
44
45 class _MyHomePageState extends State<MyHomePage> {
46   TextEditingController namaController = TextEditingController();
47   TextEditingController emailController = TextEditingController();
48   TextEditingController noTelpController = TextEditingController();
49
50   String? jenisKelamin;
51
52   @override
53   Widget build(BuildContext context) {
54     return Scaffold(
55       appBar: AppBar(
56         title: Text("Latihan Formulir"),
57       ),
```

```
58     body: Padding(
59       padding: const EdgeInsets.all(8.0),
60       child: ListView(
61         children: [
62           TextField(
63             controller: namaController,
64             decoration: InputDecoration(
65               label: Text("Nama Lengkap"),
66             ),
67           ),
68           TextField(
69             controller: emailController,
70             keyboardType: TextInputType.emailAddress,
71             decoration: InputDecoration(
72               label: Text("Email"),
73             ),
74           ),
75           TextField(
76             controller: noTelpController,
77             keyboardType: TextInputType.phone,
78             decoration: InputDecoration(
79               label: Text("Nomor Telpon"),
80             ),
81           ),
82           Row(
83             mainAxisAlignment: MainAxisAlignment.spaceEvenly,
84             children: [
85               Expanded(
86                 child: RadioListTile(
87                   title: Text("Pria"),
88                   value: "Pria",
89                   groupValue: jenisKelamin,
90                   onChanged: (value) {
91                     setState(() {
92                       jenisKelamin = value;
93                     });
94                   },
95                 ),
96               ),
97               Expanded(
98                 child: RadioListTile(
99                   title: Text("Wanita"),
100                  value: "Wanita",
101                  groupValue: jenisKelamin,
102                  onChanged: (value) {
103                    setState(() {
104                      jenisKelamin = value;
105                    });
106                  },
107                ),
108              ),
109            ],
110          ),
111          KemampuanBerbahasa(),
112          Agama(),
113          TanggalDaftar(),
114          JamDaftar(),
115          Padding(
116            padding: const EdgeInsets.all(8.0),
117            child: Row(
```

```
4/23/24, 7:56 AM main.dart
118 |     mainAxisSize: MainAxisSize.spaceEvenly,
119 |     children: [
120 |       ElevatedButton(
121 |         onPressed: () {
122 |           setState(() {
123 |             Pendaftaran pendaftaran = Pendaftaran(
124 |               context,
125 |               namaController.text,
126 |               emailController.text,
127 |               noTelpController.text,
128 |               jenisKelamin.toString(),
129 |               bahasaDipilihList.toString(),
130 |               agamaDipilih.toString(),
131 |               tanggalDaftarController.text,
132 |               jamDaftarController.text,
133 |             );
134 |
135 |             if (pendaftaran.sudahValid()) {
136 |               pendaftaranList.add(pendaftaran);
137 |
138 |               Navigator.push(
139 |                 context,
140 |                 MaterialPageRoute(
141 |                   builder: (context) => DataPendaftaran(),
142 |                 ),
143 |               );
144 |             }
145 |           );
146 |         },
147 |         child: Text("Simpan"),
148 |       ),
149 |       ElevatedButton(
150 |         onPressed: () {
151 |           Navigator.push(
152 |             context,
153 |             MaterialPageRoute(
154 |               builder: (context) => DataPendaftaran(),
155 |             ),
156 |           );
157 |         },
158 |         child: Text("Lihat Data"),
159 |       ),
160 |       ],
161 |     ),
162 |     ],
163 |   ),
164 |   ),
165 |   ),
166 | );
167 |
168 }
169 }
```

1. Jalankan program

Hasil Program

The screenshot shows a mobile application interface with a teal header bar. The title 'Latihan Formulir' is displayed in white. Below the header, there are fields for 'Nama Lengkap' (Full Name) and 'Email'. There are two radio buttons for gender: 'Pria' (Male) and 'Wanita' (Female). A section for 'Kemampuan Berbahasa' (Language Skills) lists several languages with checkboxes: Indonesia, Inggris, Arab, Sunda, Jawa, Madura, Jepang, Korea, and Mandarin. A dropdown menu for 'Silakan Pilih Agama Yang Anda Anut' (Please Select Your Religion) is shown. Below these, there are fields for 'Tanggal Daftar' (Registration Date) with a calendar icon and 'Jam Daftar' (Registration Time) with a clock icon. At the bottom, there are two green rounded rectangular buttons labeled 'Simpan' (Save) and 'Lihat Data' (View Data). The footer of the app includes standard navigation icons: three horizontal lines, a house, and a back arrow.

Latihan Formulir

Nama Lengkap

Email

Nomor Telpon

Pria Wanita

Kemampuan Berbahasa

Indonesia Inggris Arab
 Sunda Jawa Madura
 Jepang Korea Mandarin

Silakan Pilih Agama Yang Anda Anut ▾

Tanggal Daftar

Jam Daftar

Simpan Lihat Data

