MobileApp/lib/screens/login.dart

```dart
 1  import 'package:flutter/material.dart';
 2  import 'package:project_9/services/api.dart';
 3  import 'package:project_9/services/account_status.dart';
 4
 5  class LoginPage extends StatefulWidget {
 6    final String email;
 7    final String nome;
 8    final Function() onLogout;
 9
10    LoginPage({required this.email, required this.nome, required this.onLogout});
11
12    @override
13    _LoginPageState createState() => _LoginPageState();
14  }
15
16  class _LoginPageState extends State<LoginPage> {
17    @override
18    Widget build(BuildContext context) {
19      return Scaffold(
20        appBar: AppBar(
21          backgroundColor: Colors.white,
22          elevation: 0,
23          centerTitle: true,
24          actions: [
25            IconButton(
26              icon: Icon(Icons.logout, color: Colors.black),
27              onPressed: widget.onLogout,
28            ),
29          ],
30        ),
31        body: Center(
32          child: Padding(
33            padding: const EdgeInsets.all(20.0),
34            child: Column(
35              mainAxisAlignment: MainAxisAlignment.center,
36              children: [
37                Text(
38                  'Bem-vindo, ${widget.nome}',
39                  style: TextStyle(fontSize: 24),
40                ),
41                SizedBox(height: 20),
42                ElevatedButton(
43                  onPressed: () {
44                    Navigator.push(
45                      context,
46                      MaterialPageRoute(builder: (context) => AccountStatus(email:
    widget.email)),
47                    );
48                  },
49                  style: ElevatedButton.styleFrom(
50                    foregroundColor: Colors.white, backgroundColor: Colors.blueAccent,
51                    padding: EdgeInsets.symmetric(horizontal: 32, vertical: 12),
```

```dart
 52                     shape: RoundedRectangleBorder(
 53                       borderRadius: BorderRadius.circular(8),
 54                     ),
 55                   ),
 56                   child: Text(
 57                     'Avançar',
 58                     style: TextStyle(
 59                       fontSize: 18,
 60                       fontWeight: FontWeight.bold,
 61                     ),
 62                   ),
 63                 ),
 64               ],
 65             ),
 66           ),
 67         ),
 68       );
 69   }
 70 }
 71
 72 class AuthenticationScreen extends StatefulWidget {
 73   AuthenticationScreen({Key? key}) : super(key: key);
 74
 75   @override
 76   _AuthenticationScreenState createState() => _AuthenticationScreenState();
 77 }
 78
 79 class _AuthenticationScreenState extends State<AuthenticationScreen> {
 80   String? _loggedInEmail;
 81
 82   @override
 83   Widget build(BuildContext context) {
 84     if (_loggedInEmail != null) {
 85       return FutureBuilder(
 86         future: API.fetchUserInfo(_loggedInEmail!),
 87         builder: (context, snapshot) {
 88           if (snapshot.connectionState == ConnectionState.waiting) {
 89             return Center(child: CircularProgressIndicator());
 90           } else if (snapshot.hasError) {
 91             return Center(child: Text('Erro: ${snapshot.error}'));
 92           } else {
 93             var responseData = snapshot.data as Map<String, dynamic>;
 94             var userInfo = responseData['data'] as Map<String, dynamic>;
 95             return LoginPage(
 96               email: _loggedInEmail!,
 97               nome: userInfo['username'] ?? '',
 98               onLogout: () {
 99                 setState(() {
100                   _loggedInEmail = null;
101                 });
102               },
103             );
104           }
105         },
```

```dart
106        );
107      } else {
108        return Scaffold(
109          body: Container(
110            decoration: BoxDecoration(
111              color: Color.fromRGBO(50, 116, 159, 1),
112            ),
113            child: Center(
114              child: Container(
115                margin: EdgeInsets.symmetric(horizontal: 20.0),
116                padding: EdgeInsets.all(20.0),
117                decoration: BoxDecoration(
118                  color: Colors.white,
119                  borderRadius: BorderRadius.circular(20.0),
120                  boxShadow: [
121                    BoxShadow(
122                      color: Colors.black.withOpacity(0.2),
123                      spreadRadius: 5,
124                      blurRadius: 7,
125                      offset: Offset(0, 3),
126                    ),
127                  ],
128                ),
129                child: Column(
130                  mainAxisSize: MainAxisSize.min,
131                  children: [
132                    SizedBox(height: 20),
133                    AuthenticationTabs(onLogin: (email) {
134                      setState(() {
135                        _loggedInEmail = email;
136                      });
137                    }),
138                  ],
139                ),
140              ),
141            ),
142          ),
143        );
144      }
145    }
146  }
147
148  class AuthenticationTabs extends StatefulWidget {
149    final Function(String) onLogin;
150
151    AuthenticationTabs({Key? key, required this.onLogin}) : super(key: key);
152
153    @override
154    AuthenticationTabsState createState() => AuthenticationTabsState();
155  }
156
157  class AuthenticationTabsState extends State<AuthenticationTabs> {
158    bool _isLogin = true;
159    TextEditingController _emailController = TextEditingController();
```

```dart
160      TextEditingController _passwordController = TextEditingController();
161      TextEditingController _nameController = TextEditingController();
162      String? _errorMessage;
163
164      void toggleTab() {
165        setState(() {
166          _isLogin = !_isLogin;
167          if (_isLogin) {
168            _nameController.clear();
169          } else {
170            _emailController.clear();
171            _passwordController.clear();
172          }
173          _errorMessage = null;
174        });
175      }
176
177      void submitLoginForm() async {
178        String email = _emailController.text;
179        String password = _passwordController.text;
180        try {
181          String apiResult = await API.fetchSubmitLoginForm(email, password);
182          if (apiResult == 'Login bem-sucedido!') {
183            widget.onLogin(email);
184            // ignore: use_build_context_synchronously
185            Navigator.push(context, MaterialPageRoute(builder: (context) =>
      AccountStatus(email: email)));
186          } else {
187            setState(() {
188              _errorMessage = apiResult;
189            });
190          }
191        } catch (e) {
192          print('Erro!');
193        }
194      }
195
196      void submitRegisterForm() async {
197        String username = _nameController.text;
198        String email = _emailController.text;
199        String password = _passwordController.text;
200        try {
201          String apiResult = await API.fetchRegisterForm(username, email, password);
202          if (apiResult == 'Utilizador registado com sucesso!') {
203            // ignore: use_build_context_synchronously
204            Navigator.push(context, MaterialPageRoute(builder: (context) =>
      AccountStatus(email: email)));
205          } else {
206            setState(() {
207              _errorMessage = apiResult;
208            });
209          }
210        } catch (e) {
211          print('Erro!');
```

```dart
212        }
213      }
214
215      @override
216      Widget build(BuildContext context) {
217        return Column(
218          children: [
219            Container(
220              margin: EdgeInsets.only(bottom: 20),
221              height: 100,
222              decoration: BoxDecoration(
223                shape: BoxShape.circle,
224                image: DecorationImage(
225                  image: AssetImage('assets/images/profile.jpg'),
226                ),
227              ),
228            ),
229            _isLogin
230                ? LoginForm(
231                    emailController: _emailController,
232                    passwordController: _passwordController,
233                    onSubmit: submitLoginForm,
234                  )
235                : RegisterForm(
236                    nameController: _nameController,
237                    emailController: _emailController,
238                    passwordController: _passwordController,
239                    onSubmit: submitRegisterForm,
240                  ),
241            SizedBox(height: 10),
242            if (_errorMessage != null)
243              Text(
244                _errorMessage!,
245                style: TextStyle(color: Colors.red),
246              ),
247            SizedBox(height: 10),
248            TextButton(
249              onPressed: toggleTab,
250              child: Text(
251                _isLogin ? 'Criar uma conta' : 'Já tem uma conta? Entrar',
252                style: TextStyle(color: Colors.blueAccent),
253              ),
254            ),
255          ],
256        );
257      }
258    }
259
260    class LoginForm extends StatelessWidget {
261      final TextEditingController emailController;
262      final TextEditingController passwordController;
263      final VoidCallback onSubmit;
264
265      LoginForm({
```

```dart
266        required this.emailController,
267        required this.passwordController,
268        required this.onSubmit,
269      });
270
271      @override
272      Widget build(BuildContext context) {
273        return Column(
274          children: [
275            TextField(
276              controller: emailController,
277              decoration: InputDecoration(
278                hintText: 'Email',
279                border: OutlineInputBorder(
280                  borderRadius: BorderRadius.circular(12),
281                  borderSide: BorderSide(color: Colors.grey),
282                ),
283                contentPadding: EdgeInsets.symmetric(horizontal: 16),
284              ),
285            ),
286            SizedBox(height: 10),
287            TextField(
288              controller: passwordController,
289              obscureText: true,
290              decoration: InputDecoration(
291                hintText: 'Password',
292                border: OutlineInputBorder(
293                  borderRadius: BorderRadius.circular(12),
294                  borderSide: BorderSide(color: Colors.grey),
295                ),
296                contentPadding: EdgeInsets.symmetric(horizontal: 16),
297              ),
298            ),
299            SizedBox(height: 20),
300            ElevatedButton(
301              onPressed: onSubmit,
302              style: ElevatedButton.styleFrom(
303                foregroundColor: Colors.white, backgroundColor: Colors.blueAccent,
304                padding: EdgeInsets.symmetric(horizontal: 32, vertical: 12),
305                shape: RoundedRectangleBorder(
306                  borderRadius: BorderRadius.circular(8),
307                ),
308              ),
309              child: Text(
310                'Entrar',
311                style: TextStyle(
312                  fontSize: 18,
313                  fontWeight: FontWeight.bold,
314                ),
315              ),
316            ),
317          ],
318        );
319      }
```

```dart
320   }
321
322   class RegisterForm extends StatelessWidget {
323     final TextEditingController nameController;
324     final TextEditingController emailController;
325     final TextEditingController passwordController;
326     final VoidCallback onSubmit;
327
328     RegisterForm({
329       required this.nameController,
330       required this.emailController,
331       required this.passwordController,
332       required this.onSubmit,
333     });
334
335     @override
336     Widget build(BuildContext context) {
337       return Column(
338         children: [
339           TextField(
340             controller: nameController,
341             decoration: InputDecoration(
342               hintText: 'Nome',
343               border: OutlineInputBorder(
344                 borderRadius: BorderRadius.circular(12),
345                 borderSide: BorderSide(color: Colors.grey),
346               ),
347               contentPadding: EdgeInsets.symmetric(horizontal: 16),
348             ),
349           ),
350           SizedBox(height: 10),
351           TextField(
352             controller: emailController,
353             decoration: InputDecoration(
354               hintText: 'Email',
355               border: OutlineInputBorder(
356                 borderRadius: BorderRadius.circular(12),
357                 borderSide: BorderSide(color: Colors.grey),
358               ),
359               contentPadding: EdgeInsets.symmetric(horizontal: 16),
360             ),
361           ),
362           SizedBox(height: 10),
363           TextField(
364             controller: passwordController,
365             obscureText: true,
366             decoration: InputDecoration(
367               hintText: 'Password',
368               border: OutlineInputBorder(
369                 borderRadius: BorderRadius.circular(12),
370                 borderSide: BorderSide(color: Colors.grey),
371               ),
372               contentPadding: EdgeInsets.symmetric(horizontal: 16),
373             ),
```

```dart
374          ),
375        SizedBox(height: 20),
376        ElevatedButton(
377          onPressed: onSubmit,
378          style: ElevatedButton.styleFrom(
379            foregroundColor: Colors.white, backgroundColor: Colors.blueAccent,
380            padding: EdgeInsets.symmetric(horizontal: 32, vertical: 12),
381            shape: RoundedRectangleBorder(
382              borderRadius: BorderRadius.circular(8),
383            ),
384          ),
385          child: Text(
386            'Registar',
387            style: TextStyle(
388              fontSize: 18,
389              fontWeight: FontWeight.bold,
390            ),
391          ),
392        ),
393      ],
394    );
395  }
396 }
```