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How to Build an API with Laravel Breeze in Laravel 11

A step-by-step guide on building a simple API with authentication using Laravel Breeze in Laravel 11.

Step 1: Install Laravel

Pertama, buat proyek Laravel baru menggunakan penginstal Laravel atau

Composer. laravel new api-breeze

Or via Composer composer create-project laravel/laravel api-breeze cd apibreeze

Langkah	Deskripsi
1	PS C:\laragon\www\api-breeze> composer require laravel/breezedev Cannot use laravel/breeze's latest version v2.2.5 as it requires php ./composer.json has been updated Running composer update laravel/breeze Loading composer repositories with package information Updating dependencies Lock file operations: 1 install, 0 updates, 0 removals Locking laravel/breeze (v1.29.1) Writing lock file Installing dependencies from lock file (including require-dev) Package operations: 1 install, 0 updates, 0 removals INFO: Could not find files for the given pattern(s).

Step 2: Install Laravel Breeze

Next, install Laravel Breeze and its dependencies.

composer require laravel/breeze --dev

php artisan breeze:install api

Perintah ini akan menginstal Breeze dan menyiapkan perancah yang diperlukan untuk autentikasi API.

Langkah	Deskripsi
1	PS C:\laragon\www\api-breeze> php artisan breeze:install api INFO Breeze scaffolding installed successfully.
	PS C:\laragon\www\api-breeze>

Step 3: Configure the Database and Run Migrations

1. Update your .env file with your database credentials: DB_CONNECTION=mysql

DB_HOST=127.0.0.1

DB_PORT=3306

DB_DATABASE=laravel11_api

DB_USERNAME=root

DB_PASSWORD=

1. Run the migrations to set up your database tables: php artisan migrate

artisan ingrate		
Langkah	Deskripsi	
1	DB_CONNECTION=mysql DB_HOST=127.0.0.1 DB_PORT=3306 DB_DATABASE=laravel11_api DB_USERNAME=root DB_PASSWORD=	
2	PS C:\laragon\www\api-breeze> php artisan migrate INFO Preparing database. Creating migration table	

Step 4: Create Authentication Endpoints

Laravel Breeze provides the necessary endpoints for registration, login, and logout. The routes are defined in routes/api.php.

```
Route::post('/register', [RegisteredUserController::class, 'store']);
Route::post('/login',

[AuthenticatedSessionController::class, 'store']);
Route::post('/logout', [AuthenticatedSessionController::class, 'destroy'])-
>middleware('auth:sanctum');
```

Step 5: Update Controllers

Modify the RegisteredUserController and AuthenticatedSessionController to return JSON responses.

Registered User Controller.php

 $name space\ App \backslash Http \backslash Controllers \backslash Auth;$

```
use App\Models\User;
use Illuminate\Auth\Events\Registered;
use Illuminate\Http\Request; use
Illuminate\Support\Facades\Hash;
use Illuminate\Validation\Rules;
```

```
use App\Http\Controllers\Controller;
```

```
class RegisteredUserController extends Controller
    public
              function
                         store(Request
  $request)
  {
    $request->validate([
      'name' => ['required', 'string', 'max:255'],
      'email' => ['required', 'string', 'email', 'max:255', 'unique:users'],
      'password' => ['required', 'confirmed', Rules\Password::defaults()],
    ]);
    $user = User::create([
      'name' => $request->name,
      'email' => $request->email,
      'password' => Hash::make($request->password),
    ]);
    event(new Registered($user));
    $token = $user->createToken('auth_token')->plainTextToken;
    return response()->json([
      'access_token' => $token,
      'token_type' => 'Bearer', 'user'
      => $user
    ]);
```

```
}
}
AuthenticatedSessionController.php
namespace App\Http\Controllers\Auth;
        Illuminate\Http\Request;
use
                                     use
Illuminate\Support\Facades\Auth; use
App\Http\Controllers\Controller;
class AuthenticatedSessionController extends Controller
    public
                          store(Request
              function
  $request)
  {
    $request->validate([
      'email' => ['required', 'string', 'email'], 'password' =>
      ['required', 'string'],
    ]);
if (!Auth::attempt($request->only('email', 'password'))) {
     return response()->json(['message' => 'Invalid login
                                      credentials'], 401);
    }
    $user = Auth::user();
    $token = $user->createToken('auth_token')->plainTextToken;
    return response()->json([
```

```
'access_token' => $token,
  'token_type' => 'Bearer', 'user'
  => $user,
  'status' => 'Login successful',
]);
}

public function destroy(Request $request)
{
  $request->user()->currentAccessToken()->delete();

return response()->json(['message' => 'Logout successful']); }
```

```
// Metode untuk menangani login pengguna
public function store(Request $request)
        // Validasi input dari pengguna
        $request->validate([
            'email' => ['required', 'string', 'email'],
            'password' => ['required', 'string'],
        ]);
        // Mencoba autentikasi pengguna
                                                if
(!Auth::attempt($request->only('email', 'password'))) {
// Jika kredensial tidak valid, kembalikan respon error
return response()->json(['message' => 'Invalid login credentials'],
401);
        }
        // Jika login berhasil, ambil data pengguna yang sedang login
        $user = Auth::user();
        // Buatkan token untuk pengguna yang berhasil login
        $token = $user->createToken('auth_token')->plainTextToken;
        // Kembalikan respons dalam format JSON dengan token dan data
                 return response()->json([
pengguna
                                                       'access token'
=> $token,
            'token_type' => 'Bearer',
            'user' => $user,
            'status' => 'Login successful',
        ]);
    // Metode untuk logout pengguna
    public function destroy(Request $request)
        // Menghapus token yang digunakan saat ini
        $request->user()->currentAccessToken()->delete();
        // Kembalikan respons sukses logout
                                                   return response()-
>json(['message' => 'Logout successful']);
                                               }
<?php namespace</pre>
App\Http\Controllers\Auth;
 use
App\Models\User;
use Illuminate\Auth\Events\Registered; use Illuminate\Http\Request; use
Illuminate\Support\Facades\Hash;
```

```
use Illuminate\Validation\Rules; use
App\Http\Controllers\Controller;
class RegisteredUserController extends Controller
{ public function store(Request
$request)
$request->validate([
'name' => ['required', 'string', 'max:255'],
'email' => ['required', 'string', 'email', 'max:255', 'unique:users'],
'password' => ['required', 'confirmed', Rules\Password::defaults()],
]);
$user = User::create([
'name' => $request->name, 'email' => $request->email,
'password' => Hash::make($request->password),
]);
event(new Registered($user));
$token = $user->createToken('auth_token')->plainTextToken;
return response()->json([
'access token' => $token, 'token_type' => 'Bearer', 'user' => $user
]);
```

Step 5: Run Laravel App

php artisan serve

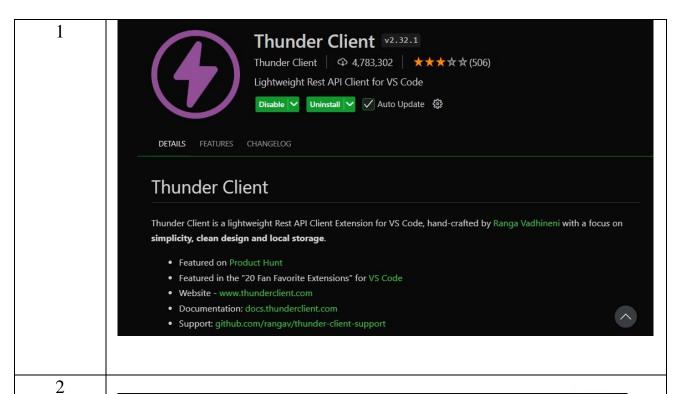
Step 6: Check following API

Test Your API with Thunder Client

```
POST V http://127.0.0.1:8000/api/register
                                                                                       Send
Query
         Headers 2
                     Auth
                             Body 1
                                      Tests
                                              Pre Run
JSON
        XML
                      Form
                              Form-encode
                                              GraphQL
                                                         Binary
               Text
JSON Content
                                                                                       Format
       "name": "john maths9",
"email": "johnmaths9@example.com",
       "password": "password123",
       "password_confirmation": "password123"
Status: 200 OK
                Size: 0 Bytes
                              Time: 1.17 s
Response
            Headers 9 Cookies 1
                                 Results
                                           Docs
                                                                                       {} ≡
        "access_token": "2|qqL5BsuBQR0X9hWTTHij2qO92YydeogDFEikr18Z2f0ff604",
        "token_type": "Bearer",
         "email": "johnmaths9@example.com",
         "updated_at": "2024-07-12T14:56:45.000000Z",
         "created_at": "2024-07-12T14:56:45.000000Z",
                                                                        Response
                                                                                    Chart
```

```
POST Y
         http://127.0.0.1:8000/api/login
                                                                                   Send
Query
        Headers 2
                   Auth
                            Body
                                    Tests
                                            Pre Run
JSON
       XML
               Text
                     Form
                             Form-encode
                                           GraphQL
                                                      Binary
JSON Content
                                                                                   Format
       "email": "johnmaths9@example.com",
       "password": "password123"
Status: 200 OK Size: 0 Bytes Time: 651 ms
Response
           Headers 9 Cookies 1
                               Results
                                         Docs
       "access_token": "5|YPwsETaDLzgQdeQ60PM64QTNrtC0LI5G10y5BAiea954de8e",
       "token_type": "Bearer",
         "id": 2,
         "email": "johnmaths9@example.com",
         "email_verified_at": null,
         "created_at": "2024-07-12T14:56:45.000000Z",
         "updated_at": "2024-07-12T14:56:45.000000Z"
       "status": "Login successful"
```

Langkah | Deskripsi



POST V http://127.0.0.1:8000/api/register Send Query Headers ² Body 1 Pre Run JSON XML Form-encode GraphQL Binary JSON Content Format { "name": "john maths9",
"email": "johnmaths9@example.com", "password": "password123", "password_confirmation": "password123"

```
Headers 10 Cookies
             Response
                                                  Results
                     "access_token": "1|Se9pV4CC6iJ1b1b7qZ5ezHbGRuUY5WVUY9lpuOjL4c8ae1fa",
                     "token_type": "Bearer",
                     "user": {
                       "name": "john maths9",
                       "email": "johnmaths9@example.com",
                       "updated_at": "2024-11-26T03:34:50.0000000Z", "created_at": "2024-11-26T03:34:50.000000Z",
                       "id": 1
3
              POST > http://127.0.0.1:8000/api/login
                                                                                             Send
                                           Body 1
                       Headers 2
                                  Auth
                                                    Tests
                                                             Pre Run
                                            Form-encode
             JSON
                      XML
                             Text
                                                            GraphQL
                                                                       Binary
             JSON Content
                                                                                             Format
                     "email": "johnmaths9@example.com",
                     "password": "password123"
```

```
        Status: 200 OK
        Size: 300 Bytes
        Time: 510 ms

        Response
        Headers 10 Cookies
        Results
        Docs
        {}

        1
        {
        "access_token": "2|b1JAIwtNzAKE3u0gef0dt9HpqHBy2nmwqffPB1INd0603788",

        3
        "token_type": "Bearer",

        4
        "user": {

        5
        "id": 1,

        6
        "name": "john maths9",

        7
        "email": "johnmaths9@example.com",

        8
        "email_verified_at": null,

        9
        "created_at": "2024-11-26T03:34:50.0000000Z",

        10
        "updated_at": "2024-11-26T03:34:50.0000000Z",

        11
        },

        12
        "status": "Login successful"
```

Pembuatan Aplikasi Mobile Flutter, Langkah 1: Persiapan Proyek Flutter

1. **Buat Proyek Flutter Baru:** bash flutter

```
create my_ flutter_app cd my__flutter_app
```

2. Tambahkan Dependencies:

Buka pubspec.yaml dan tambahkan beberapa dependencies yang

diperlukan: yaml dependencies: flutter:

sdk: flutter

http: ^0.13.3 shared_preferences:

^2.0.6 provider:

^6.0.0

flutter_secure_storage: ^5.0.2

Jalankan **flutter pub get** untuk mengunduh dependencies.

```
Langkah
             Deskripsi
              dependencies:
                flutter:
                  sdk: flutter
                  http: ^0.13.3
                  shared preferences: ^2.0.6
                  provider: ^6.0.0
                  flutter secure storage: ^5.0.2
       2
                    PS C:\laragon\www\Mobile 2024\my flutter app> flutter pub get
                    Resolving dependencies... (1.6s)
                    Downloading packages... (1.2s)
                      async 2.11.0 (2.12.0 available)
                      boolean_selector 2.1.1 (2.1.2 available)
                      characters 1.3.0 (1.3.1 available)
                      clock 1.1.1 (1.1.2 available)
                      collection 1.18.0 (1.19.1 available)
                      fake_async 1.3.1 (1.3.2 available)
                      ffi 2.1.3
                      file 7.0.1
```

Buat Splashscreen dengan animasi dari Lottie File Langkah

2: Mengatur Struktur Proyek

Buat folder berikut untuk mengatur kode Anda dengan lebih baik:

- lib/screens/ untuk menyimpan file layar (UI).
- lib/services/ untuk layanan HTTP dan manajemen API.
- lib/models/ untuk model data.
- lib/providers/ untuk manajemen state menggunakan Provider.

Langkah 3: Membuat Model Pengguna

```
user_model.dart
        file
Buat
lib/models/: dart class User { final int
id; final String name; final String
email;
 User({required this.id, required this.name, required this.email});
 factory User.fromJson(Map<String, dynamic> json) { return
  User(
            json['id'],
   id:
   name:
  json['name'],
   email:
  json['email'],
 );
```

```
class User { final int id; final
    String name; final String email;

User({required this.id, required this.name, required this.email});

factory User.fromJson(Map<String, dynamic> json) { return
    User( id: json['id'], name: json['name'], email:
    json['email'],
    );
}
```

Langkah 4: Membuat Layanan API Buat file auth_service.dart di lib/services/: dart

```
import 'dart:convert'; import 'package:http/http.dart' as http; import
'package:flutter_secure_storage/flutter_secure_storage.dart';
                                                               import
'../models/user_model.dart';
class AuthService {
final String apiUrl = 'http://your-laravel-api-url.com/api'; final
 storage = FlutterSecureStorage();
 Future<bool> login(String email, String password) async {
 final response = await http.post( Uri.parse('$apiUrl/login'),
  headers:
              {'Content-Type':
                                  'application/json'},
                                                        body:
 jsonEncode({'email': email, 'password': password}),
 );
 if (response.statusCode == 200) {
   final
           data
                        jsonDecode(response.body);
                                                         await
  storage.write(key: 'token', value: data['token']); return true;
  } else { return
   false;
 Future<User?> getProfile() async { final token
     await storage.read(key: 'token'); final
 response = await http.get(
  Uri.parse('$apiUrl/profile'), headers:
   {
 'Content-Type': 'application/json', 'Authorization':
```

```
'Bearer $token',
 },
);
if (response.statusCode == 200) {
 final data = jsonDecode(response.body); return
 User.fromJson(data['user']);
 } else { return
 null;
Future<void> logout() async {
              storage.delete(key:
await
 'token');
```

Langkah	Deskripsi
1	<pre>import 'dart:convert'; import 'package:http/http.dart' as http; import 'package:flutter_secure_storage/flutter_secure_storage.dart'; import '/models/user_model.dart';</pre>

```
class AuthService { final String apiUrl = 'http://your-laravel-
api-url.com/api'; final storage = const FlutterSecureStorage();
Future<bool> login(String email, String password) async { final
response = await http.post( Uri.parse('$apiUrl/login'),
headers: {'Content-Type': 'application/json'}, body:
jsonEncode({'email': email, 'password': password}), );
if (response.statusCode == 200) { final data =
jsonDecode(response.body); await storage.write(key: 'token',
value: data['token']); return true;
} else { return false;
Future<User?> getProfile() async { final token = await
storage.read(key: 'token'); final response = await http.get(
Uri.parse('$apiUrl/profile'), headers: {
'Content-Type': 'application/json', 'Authorization': 'Bearer
$token',
},
);
if (response.statusCode == 200) {
final data = jsonDecode(response.body); return
User.fromJson(data['user']);
} else { return null;
Future<void> logout() async { await
storage.delete(key: 'token');
```

Langkah 5: Menyusun State Management dengan Provider

```
Buat file auth_provider.dart di lib/providers/: dart
import 'package:flutter/material.dart'; import
'../models/user_model.dart'; import
'../services/auth_service.dart';
class AuthProvider with ChangeNotifier {
final AuthService _authService = AuthService(); User?
 _user;
User? get user => _user;
 Future<bool> login(String email, String password) async { bool
 success = await _authService.login(email, password); if (success)
  {
                          _authService.getProfile();
                 await
  user
         =
  notifyListeners();
         return
 success;
 Future<void> logout() async { await
 _authService.logout();
 _user = null;
 notifyListeners();
 }
```

Future<void>loadUser() async {

```
_user = await _authService.getProfile();
notifyListeners(); }
```

```
Langkah
            Deskripsi
             import 'package:flutter/material.dart';
    1
             import '../models/user_model.dart';
             import '../services/auth_service.dart';
             class AuthProvider with ChangeNotifier { final AuthService
             _authService = AuthService(); User? _user;
             User? get user => _user;
             Future<bool> login(String email, String password) async { bool
             success = await _authService.login(email, password); if (success) {
             _user = await _authService.getProfile(); notifyListeners();
             } return
             success;
             Future<void> logout() async { await _authService.logout();
             _user = null;
             notifyListeners();
             Future<void> loadUser() async {
             _user = await _authService.getProfile(); notifyListeners();
```

Langkah 6: Membuat Halaman Login

```
Buat file login_screen.dart di lib/screens/: dart import 'package:flutter/material.dart'; import 'package:provider/provider.dart'; import
```

```
'../providers/auth_provider.dart';
class LoginScreen extends StatelessWidget {
final TextEditingController emailController = TextEditingController(); final
 TextEditingController passwordController = TextEditingController();
 @override
 Widget build(BuildContext context) {
 final authProvider = Provider.of<AuthProvider>(context);
 return Scaffold(
  appBar: AppBar(title: Text('Login')), body:
   Padding(
                       padding:
   EdgeInsets.all(16.0), child:
    Column(children:
     TextField(
                    controller:
                                  emailController,
      decoration:
                       InputDecoration(labelText:
      'Email'),
      ),
     TextField(
                    controller:
                                  passwordController,
      decoration:
                            InputDecoration(labelText:
      'Password'), obscureText: true,
      ),
      SizedBox(height: 20), ElevatedButton(
      onPressed: () async { bool success =
      await authProvider.login(
```

```
emailController.text,
        passwordController.text,
       );
       if (success) {
      Navigator.of(context).pushReplacementNamed('/profile');
       } else { ScaffoldMessenger.of(context).showSnackBar(SnackBar(
       content: Text('Login failed!'),
        ));
                   child:
      },
      Text('Login'),
     ),
    ],
   ),
  ),
 );
Langkah
            Deskripsi
```

```
import 'package:flutter/material.dart';
1
        import 'package:provider/provider.dart';
        import '../providers/auth_provider.dart';
         class LoginScreen extends StatelessWidget { final
        TextEditingController emailController =
        TextEditingController(); final
        TextEditingController passwordController =
        TextEditingController();
          LoginScreen({super.key});
        @override
        Widget build(BuildContext context) { final authProvider
        = Provider.of<AuthProvider>(context);
        return Scaffold(
          appBar: AppBar(title: const Text('Login')), body:
        Padding( padding: const EdgeInsets.all(16.0), child:
        Column( children: [ TextField( controller:
        emailController, decoration: const
        InputDecoration(labelText: 'Email'),
```

```
TextField( controller: passwordController, decoration:
const InputDecoration(labelText: 'Password'),
obscureText: true,
), const SizedBox(height: 20), ElevatedButton( onPressed: ()
async { bool success = await authProvider.login(
emailController.text, passwordController.text,
if (success) {
Navigator.of(context).pushReplacementNamed('/profile');
} else {
ScaffoldMessenger.of(context).showSnackBar(const SnackBar( content:
Text('Login failed!'),
));
} }, child: const
Text('Login'),
```

Langkah 7: Membuat Halaman Profil

```
Buat file profile_screen.dart di lib/screens/: dart import 'package:flutter/material.dart'; import 'package:provider/provider.dart'; import '../providers/auth_provider.dart'; class ProfileScreen extends StatelessWidget { @override Widget build(BuildContext context) { final authProvider = Provider.of<AuthProvider>(context); final user = authProvider.user;
```

```
return Scaffold(
  appBar: AppBar( title:
  Text('Profile'), actions: [
    IconButton(
                       icon:
     Icon(Icons.logout),
     onPressed: () {
      authProvider.logout();
    Navigator.of(context).pushReplacementNamed('/login');
     },
    ),
   ],
  ),
  body:
              Center(
   child: user != null
     ?
               Column(
                                 mainAxisAlignment:
       MainAxisAlignment.center, children: [
        Text('Welcome, ${user.name}!'),
        Text('Email: ${user.email}'),
       ],
    : CircularProgressIndicator(),
  ),
 );
Langkah
            Deskripsi
```

```
import 'package:flutter/material.dart'; import
1
          package:provider/provider.dart'; import
         '../providers/auth_provider.dart';
          class ProfileScreen extends
         StatelessWidget {    const
        ProfileScreen({super.key});
          @override
        Widget build(BuildContext context) { final
        authProvider = Provider.of<AuthProvider>(context);
           final user =
        authProvider.user;
        return Scaffold( appBar: AppBar( title: const
         Text('Profile'), actions: [ IconButton( icon: const
        Icon(Icons.logout), onPressed: () { authProvider.logout();
        Navigator.of(context).pushReplacementNamed('/login');
        ], ), body:
        Center( child:
        user != null
        ? Column(
        mainAxisAlignment: MainAxisAlignment.center, children: [
        Text('Welcome, ${user.name}!'),
         Text('Email: ${user.email}'),
         : const CircularProgressIndicator(),
```

Langkah 8: Mengatur Routing dan Provider

Buka **main.dart** dan atur routing serta Provider: dart import 'package:flutter/material.dart'; import 'package:provider/provider.dart'; import

```
'screens/splash_screen.dart'; import
'screens/login_screen.dart'; import
'screens/profile_screen.dart'; import
'providers/auth_provider.dart';
void main() {
 runApp(MyApp());
}
class MyApp extends StatelessWidget {
 @override
 Widget build(BuildContext context) { return
  MultiProvider(
   providers: [
   ChangeNotifierProvide
   r(create: (_) =>
   AuthProvider()),
   ],
   child: MaterialApp( title:
    'Flutter App',
    theme: ThemeData(
     primarySwatch: Colors.blue,
    ),
    initialRoute:
    '/', routes: {
     '/': (context) => SplashScreen(), '/login':
     (context) => LoginScreen(), '/profile':
```

```
Langkah
            Deskripsi
            import 'package:flutter/material.dart';
    1
            import 'package:provider/provider.dart';
            import 'screens/splash_screen.dart';
            import 'screens/login_screen.dart';
            import 'screens/profile screen.dart';
            import 'providers/auth_provider.dart';
            void main() { runApp(MyApp());
            class MyApp extends StatelessWidget {
            const MyApp({super.key});
             @override
            Widget build(BuildContext context) { return MultiProvider(
            providers: [
            ChangeNotifierProvider(create: ( ) => AuthProvider()),
            ], child: MaterialApp( title: 'Flutter App', theme:
            ThemeData( primarySwatch: Colors.blue,
            ), initialRoute: '/', routes: {
            '/': (context) =>
            SplashScreen(),
             '/login': (context) => LoginScreen(),
            '/profile': (context) => ProfileScreen(),
            },
            ),
             );
```

Langkah G: Menyiapkan Splash Screen Buat

```
file splash_screen.dart di lib/screens/: dart
import 'package:flutter/material.dart'; import
'package:provider/provider.dart'; import
'../providers/auth_provider.dart';
class SplashScreen extends StatefulWidget { @override
_SplashScreenState createState() => _SplashScreenState();
}
class _SplashScreenState extends State<SplashScreen> {
 @override
 void initState() {
  super.initState();
  _checkLoginStatus();
 void _checkLoginStatus() async {
  final authProvider = Provider.of<AuthProvider>(context, listen: false);
  await authProvider.loadUser(); if (authProvider.user != null) {
   Navigator.of(context).pushReplacementNamed('/profile');
  } else {
   Navigator.of(context).pushReplacementNamed('/login');
 @override
 Widget build(BuildContext context) {
```

```
return Scaffold(
  body: Center(
  child: Text('My Flutter App', style: TextStyle(fontSize: 24)),
  ),
  );
}
```

Langkah	Deskripsi
1	<pre>import 'package:flutter/material.dart'; import</pre>
	'package:provider/provider.dart'; import

```
../providers/auth provider.dart';
 class SplashScreen extends
StatefulWidget {    const
SplashScreen({super.key});
@override
SplashScreenState createState() => _SplashScreenState();
class SplashScreenState extends State<SplashScreen> { @override
void initState() { super.initState();
checkLoginStatus();
void checkLoginStatus() async { final authProvider =
Provider.of<AuthProvider>(context, listen:
false); await authProvider.loadUser();
if (authProvider.user != null) {
Navigator.of(context).pushReplacementNamed('/profile');
} else {
Navigator.of(context).pushReplacementNamed('/login');
@override
Widget build(BuildContext context) {
return const Scaffold( body: Center( child: Text('My
Flutter App', style: TextStyle(fontSize: 24)),
),
);
```

Langkah 10: Menjalankan Aplikasi

Pastikan API Laravel Anda sudah berjalan dan endpoint login serta profil sudah tersedia. Jalankan aplikasi Flutter: