

Flutter API integration

ANY API



`http.get()`



`response.body`



`jsonDecode()`



`List<dynamic>`



`Product.fromJson()`



`List<Product>`



`FutureBuilder`



`ListView.builder`



Product UI

Add Http in pubspec.yaml

```
dependencies:  
  flutter:  
    sdk: flutter  
  http: ^1.5.0
```

`flutter pub get`

Create Product Model:

Generate modal using **JSON to DART**

product.dart

```
class Product {  
  
  int? id;  
  
  String? title;  
  
  double? price;  
  
  String? description;  
  
  String? category;  
  
  String? image;  
  
  Rating? rating;  
  
  
  Product({  
  
    this.id,  
  
    this.title,  
  
    this.price,  
  
    this.description,  
  
    this.category,  
  
    this.image,  
  
    this.rating,  
  
  });  
  
  Product.fromJson(Map<String, dynamic> json) {  
  
    id = json['id'];  
  
    title = json['title'];  
  
    price = json['price']?.toDouble();  
  
    description = json['description'];  
  
    category = json['category'];  
  
    image = json['image'];  
  
  }  
}
```

```

if (json['rating'] != null) {
    rating = Rating.fromJson(json['rating']);
}
}

```

```

Map<String, dynamic> toJson() {
    return {
        'id': id,
        'title': title,
        'price': price,
        'description': description,
        'category': category,
        'image': image,
        'rating': rating?.toJson(),
    };
}
}

```

```

class Rating {
    double? rate;
    int? count;
}

```

```

Rating({
    this.rate,
    this.count,
});

```

```

Rating.fromJson(Map<String, dynamic> json) {
    rate = json['rate']?.toDouble();
    count = json['count'];
}

```

```

Map<String, dynamic> toJson() {

```

```
return {  
  'rate': rate,  
  'count': count,  
};  
}  
}
```

Create API Service

api_service.dart

```
import 'dart:convert';  
import 'package:http/http.dart' as http;  
import 'product.dart';  
  
class ApiService {  
  static const String baseUrl =  
    'https://fakestoreapi.com/products';  
  
  Future<List<Product>> getProducts() async {  
    final response = await http.get(  
      Uri.parse(baseUrl),  
    );  
  
    if (response.statusCode == 200) {  
      final List<dynamic> data = jsonDecode(response.body);  
  
      return data  
        .map((json) => Product.fromJson(json))  
        .toList();  
    } else {  
      throw Exception('Failed to load products');  
    }  
  }  
}
```

```
}
```

View:

product_screen.dart

```
import 'package:flutter/material.dart';
import 'api_service.dart';
import 'product.dart';

class ProductScreen extends StatefulWidget {
  const ProductScreen({super.key});

  @override
  State<ProductScreen> createState() => _ProductScreenState();
}

class _ProductScreenState extends State<ProductScreen> {
  final ApiService apiService = ApiService();

  late Future<List<Product>> productsFuture;

  @override
  void initState() {
    super.initState();

    productsFuture = apiService.getProducts();
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
```

```
appBar: AppBar(  
  title: const Text('Fake Store Products'),  
),
```

```
body: FutureBuilder<List<Product>>(  
  future: productsFuture,
```

```
  builder: (context, snapshot) {
```

```
    // Loading
```

```
    if (snapshot.connectionState ==  
        ConnectionState.waiting) {  
      return const Center(  
        child: CircularProgressIndicator(),  
      );  
    }
```

```
    // Error
```

```
    if (snapshot.hasError) {  
      return Center(  
        child: Text(  
          'Error: ${snapshot.error}',  
        ),  
      );  
    }
```

```
    // No data
```

```
    if (!snapshot.hasData ||  
        snapshot.data!.isEmpty) {  
      return const Center(  
        child: Text('No products found'),
```

```
);  
}
```

```
// Data
```

```
final products = snapshot.data!;
```

```
return ListView.builder(  
  itemCount: products.length,  
  
  itemBuilder: (context, index) {  
    final product = products[index];  
  
    return Card(  
      margin: const EdgeInsets.symmetric(  
        horizontal: 12,  
        vertical: 6,  
      ),  
  
      child: ListTile(  
        leading: Image.network(  
          product.image ?? "",  
          width: 50,  
          height: 50,  
          fit: BoxFit.contain,  
        ),  
  
        title: Text(  
          product.title ?? "",  
          maxLines: 2,  
          overflow: TextOverflow.ellipsis,  
        ),  
      ),  
    );  
  },  
);
```

```
        subtitle: Text(
          '\${product.price}',
        ),

        trailing: Text(
          '${product.rating?.rate ?? 0} ★',
        ),
      ),
    );
  },
);
},
),
);
}
}
```