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import 'package:flutter/material.dart';
import 'package:provider/provider.dart';

// Main function to run the app
void main() {
  runApp(
    ChangeNotifierProvider(
      create: (context) => CartModel(),
      child: MyApp(),
    ),
  );
}

// Cart Model with ChangeNotifier
class CartModel extends ChangeNotifier {
  final List<Item> _items = [];

  List<Item> get items => _items;

  double get totalPrice =>
    _items.fold(0.0, (total, current) => total + current.price);

  void add(Item item) {
    _items.add(item);
    notifyListeners();
  }

  void remove(Item item) {
    _items.remove(item);
    notifyListeners();
  }
}

// Item Model
class Item {
  final String name;
  final double price;

  Item({required this.name, required this.price});
}

// MyApp Class to define the structure of the app
class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Shopping Cart',
      theme: ThemeData(
        primarySwatch: Colors.blue,
      ),
      home: ProductListPage(),
    );
  }
}

// ProductListPage to show the list of products
class ProductListPage extends StatelessWidget {

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final List<Item> products = [
  Item(name: 'Apple', price: 1.50),
  Item(name: 'Banana', price: 0.75),
  Item(name: 'Orange', price: 1.25),
];

@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: Text('Products'),
      actions: [
        IconButton(
          icon: Icon(Icons.shopping_cart),
          onPressed: () {
            Navigator.of(context).push(
              MaterialPageRoute(builder: (context) => CartPage()),
            );
          },
        ),
      ],
    ),
    body: ListView.builder(
      itemCount: products.length,
      itemBuilder: (context, index) {
        final product = products[index];
        return ListTile(
          title: Text(product.name),
          subtitle: Text('\$${product.price.toStringAsFixed(2)}'),
          trailing: ElevatedButton(
            onPressed: () {
              Provider.of<CartModel>(context, listen: false).add(product);
            },
            child: Text('Add to Cart'),
          ),
        );
      },
    ),
  );
}

// CartPage to show the items added to the cart
class CartPage extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    var cart = Provider.of<CartModel>(context);

    return Scaffold(
      appBar: AppBar(
        title: Text('Cart'),
      ),
      body: Column(
        children: [
          Expanded(
            child: ListView.builder(
              itemCount: cart.items.length,
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        itemBuilder: (context, index) {
            final item = cart.items[index];
            return ListTile(
                title: Text(item.name),
                subtitle: Text('\${item.price.toStringAsFixed(2)}'),
                trailing: IconButton(
                    icon: Icon(Icons.remove_circle),
                    onPressed: () {
                        cart.remove(item);
                    },
                ),
            );
        },
    ),
),
Padding(
    padding: const EdgeInsets.all(16.0),
    child: Text(
        'Total: \${cart.totalPrice.toStringAsFixed(2)}',
        style: TextStyle(fontSize: 20, fontWeight: FontWeight.bold),
    ),
),
),
),
),
);
}
}

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