Experiment – 8

Aim: Create an application with list view in Flutter.

Code:

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

void main() => runApp(CarListApp());
class CarListApp extends StatelessWidget {
 @override
 Widget build(BuildContext context) {
  return MaterialApp(
   debugShowCheckedModeBanner: false,
   title: 'Practical_8 Car List',
   theme: ThemeData(
    primarySwatch: Colors.deepOrange,
    scaffoldBackgroundColor: Colors.grey[100],
    visualDensity: VisualDensity.adaptivePlatformDensity,
   ),
   home: CarListScreen(),
  );
 }
}
class Car {
 final String name;
 final String model;
 final String description;
 final String imageUrl;

 Car({
  required this.name,
  required this.model,
  required this.description,
  required this.imageUrl,
 });
}

class CarListScreen extends StatelessWidget {
 final List<Car> cars = [
  Car(
```

```
      name: 'Tesla',
      model: 'Model S',
      description: 'An all-electric five-door liftback sedan produced by Tesla, Inc.',
      imageUrl: 'tesla.jpeg',
    ),
    Car(
      name: 'Lamborghini',
      model: 'Aventador',
      description: 'A mid-engine sports car produced by the Italian automotive manufacturer
Lamborghini.'.
      imageUrl: 'lamborghini.jpg',
    ),
    Car(
      name: 'Ford',
      model: 'Mustang',
      description: 'An American car manufactured by Ford. It is one of the most iconic muscle cars.',
      imageUrl: 'ford.jpg',
    ),
    Car(
      name: 'BMW',
      model: 'M4',
      description: 'A high-performance version of the BMW 4 Series, developed by BMW\'s motorsport
division.',
      imageUrl: 'bmw.jpg',
    ),
    Car(
      name: 'Audi',
      model: 'R8',
      description: 'A mid-engine, 2-seater sports car, which uses Audi\'s trademark quattro permanent
all-wheel drive system.',
      imageUrl: 'audi.jpg',
    ),
  ];

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Practical_8 Car List'),
        centerTitle: true,
        elevation: 4,
      ),
      body: ListView.builder(
```

```
      padding: EdgeInsets.all(12),
      itemCount: cars.length,
      itemBuilder: (context, index) {
       final car = cars[index];
       return CarCard(car: car);
      },
     ),
    );
  }
}

class CarCard extends StatelessWidget {
 final Car car;

 const CarCard({Key? key, required this.car}) : super(key: key);

 @override
 Widget build(BuildContext context) {
  return Card(
   margin: EdgeInsets.symmetric(vertical: 10),
   elevation: 6,
   shape: RoundedRectangleBorder(borderRadius: BorderRadius.circular(16)),
   child: Container(
    height: 160,
    padding: EdgeInsets.all(12),
    child: Row(
     children: [

      ClipRRect(
       borderRadius: BorderRadius.circular(12),
       child: Image.network(
        car.imageUrl,
        width: 140,
        height: 140,
        fit: BoxFit.cover,
        errorBuilder: (context, error, stackTrace) => Container(
         width: 140,
         height: 140,
         color: Colors.grey[300],
         child: Icon(Icons.directions_car, size: 60, color: Colors.grey[600]),
        ),
       ),
      ),
```

```
SizedBox(width: 16),

Expanded(
 child: Column(
  crossAxisAlignment: CrossAxisAlignment.start,
  mainAxisAlignment: MainAxisAlignment.center,
  children: [
   Text(
    car.name,
    style: TextStyle(
     fontSize: 22,
     fontWeight: FontWeight.bold,
     color: Colors.deepOrange[700],
    ),
   ),
   SizedBox(height: 6),
   Text(
    car.model,
    style: TextStyle(
     fontSize: 18,
     fontWeight: FontWeight.w600,
     color: Colors.grey[800],
    ),
   ),
   SizedBox(height: 12),
   Text(
    car.description,
    style: TextStyle(
     fontSize: 14,
     color: Colors.grey[700],
    ),
    maxLines: 3,
    overflow: TextOverflow.ellipsis,
   ),
  ],
 ),
)
],
),
),
);
}
}
```

- **Output:**