Internet Of Things – Group1

Smart parking

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Phase 4 – DEVELOPMENT PART 2

Design of the User Interface:

```
Import ‘package:flutter/material.dart’;

Void main() {
  runApp(MyApp());
}

Class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    Return MaterialApp(
      Home: Scaffold(
        appBar: AppBar(
          title: Text(‘Parking Availability’),
        ),
        Body: ParkingAvailabilityWidget(),
      ),
    );
  }
}

Class ParkingAvailabilityWidget extends StatelessWidget {
  @override
```

```
  Widget build(BuildContext context) {
    // You can display real-time parking availability data here
    // fetched from your Raspberry Pi.
    Return Center(
      Child: Text('Available Parking Spaces: 10'),
    );
  }
}
```

Fetch Real-Time Data from Raspberry Pi :

```
Import 'package:http/http.dart' as http;

Future<String> fetchParkingAvailability() async {
  Final response = await http.get(Uri.parse('http://your_raspberry_pi_url/data'));
  If (response.statusCode == 200) {
    Return response.body;
  } else {
    Throw Exception('Failed to load parking availability data');
  }
}
```

Display Real-Time Data:

```
Class ParkingAvailabilityWidget extends StatefulWidget {
  @override
  _ParkingAvailabilityWidgetState createState() =>
_ParkingAvailabilityWidgetState();
}
```

```
Class _ParkingAvailabilityWidgetState extends State<ParkingAvailabilityWidget>
{
  String availability = ‘Loading…’;

  @override
  Void initState() {
    Super.initState();
    fetchData();
  }

  Void fetchData() async {
    Final data = await fetchParkingAvailability();
    setState(() {
      availability = data;
    });
  }

  @override
  Widget build(BuildContext context) {
    Return Center(
      Child: Text(‘Available Parking Spaces: $availability’),
    );
  }
}
```