



Courier Tracker Web Application

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Introduction

Purpose

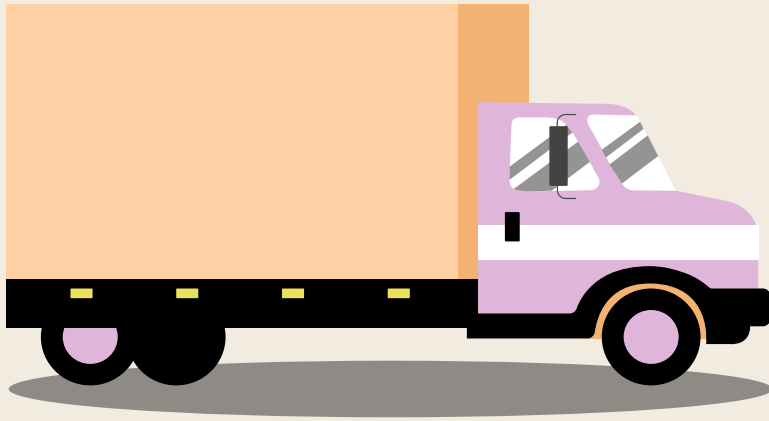
- Alternative to large companies, i.e. uberEats who collect most of the profit
- More cost efficient than the small businesses hiring another employee
- Directly supporting the local business
- Acts as a subscription services to local businesses and drivers
- Comparable company Reliable Couriers



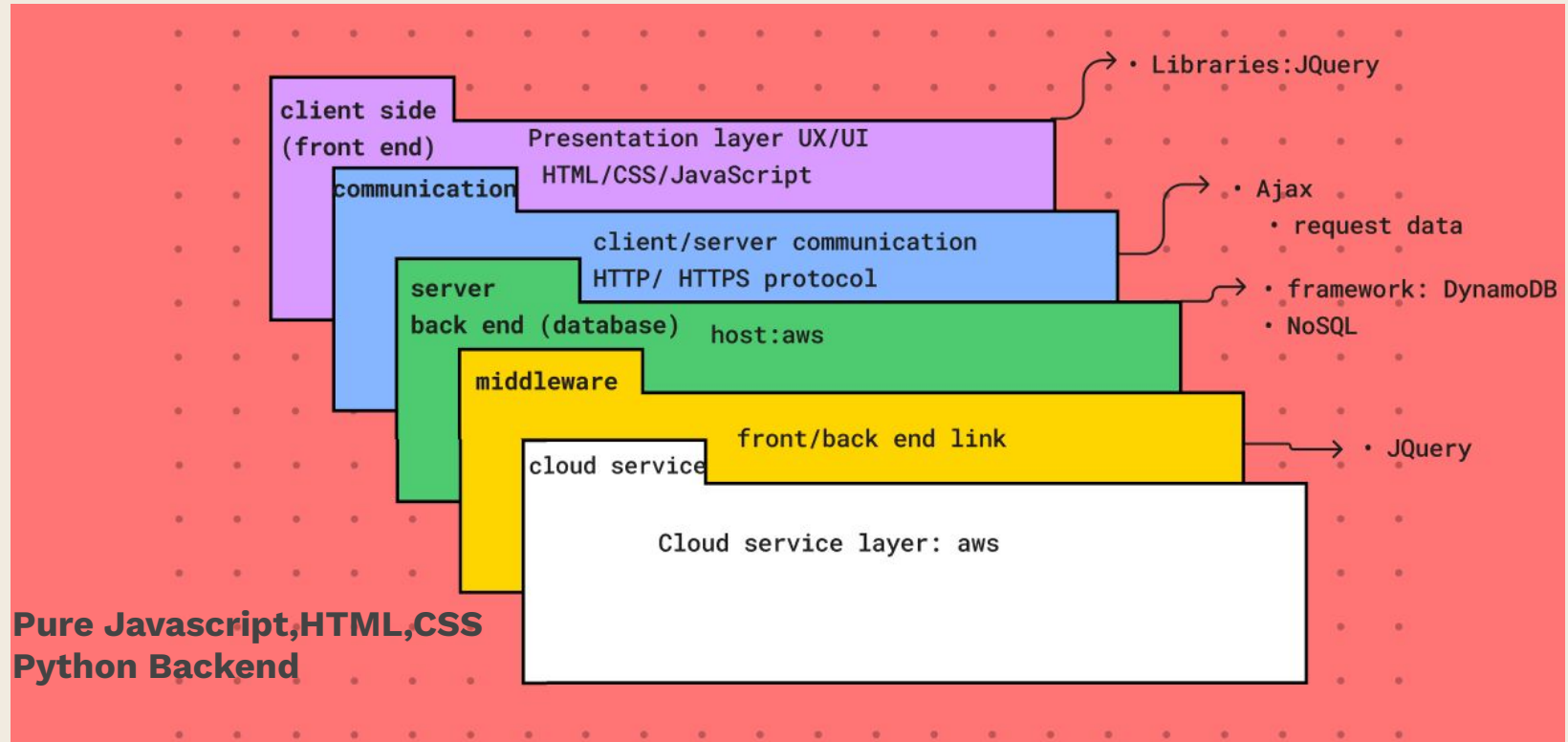
01

Technical Analysis

System breakdown of the
architecture, functionalities and
software details.



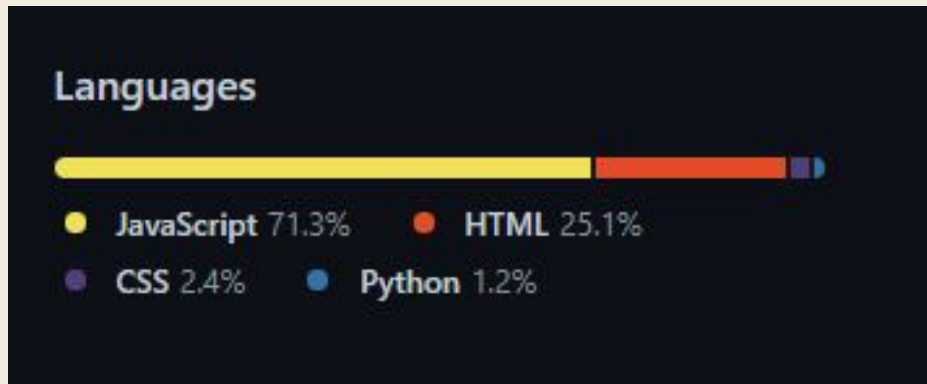
Software Layers



Software Analysis Cont.

- HOW MANY LINES PER CODE? **Total =3747**

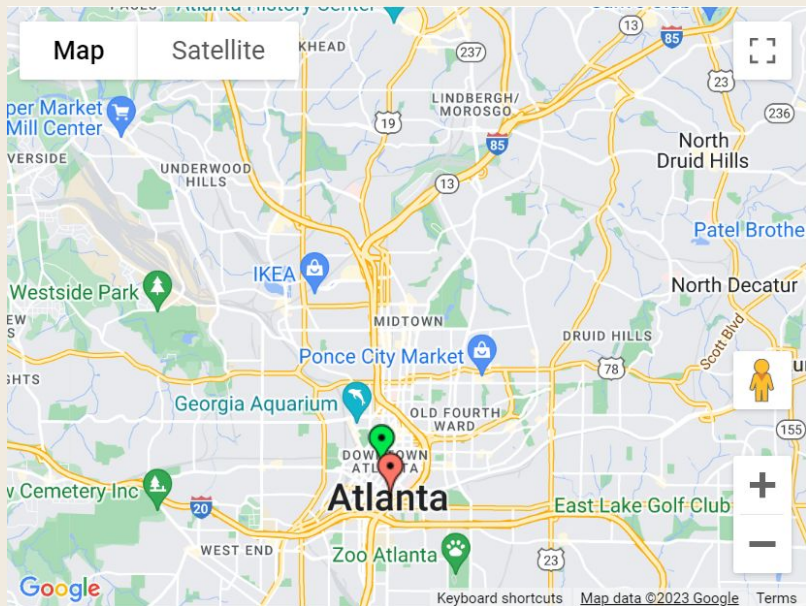
- **Partner.html →200**
- **Partner.js →362**
- **Partnerp.html →241**
- **Partnerp.js → 583**
- **Driverp.html →252**
- **Driverp.js →572**
- **Home.html →131**
- **Home.js →252**
- **Basic.css →583**



Distance Algorithm

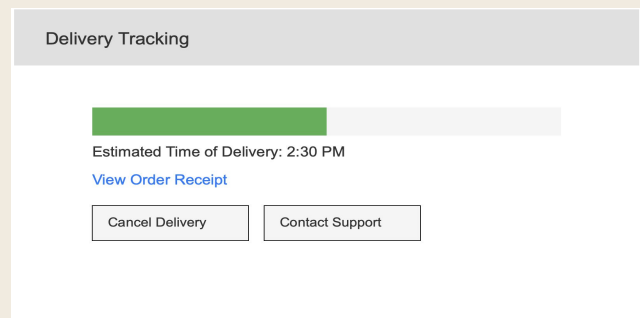
```
47 function initMap() {  
71     // Initialize the map  
72     map = new google.maps.Map(document.getElementById('map'), {  
73         zoom: 14,  
74         center: { lat: my_latitude, lng: my_longitude } // Default center, will be updated  
75     });  
76  
77     var autocomplete;  
78     autocomplete = new google.maps.places.Autocomplete((document.getElementById("searchInput")), {  
79         types: ['geocode'],  
80     });  
81  
82     google.maps.event.addListener(autocomplete, 'place_changed', function () {  
83         document.getElementById("mainbutton").disabled = false;  
84         var near_place = autocomplete.getPlace();  
85         // Check if a place is selected  
86         if (!near_place.geometry) {  
87             return;  
88         }  
89  
90         // Get the selected location's latitude and longitude  
91         var autocomplete_latitude = near_place.geometry.location.lat();  
92         var autocomplete_longitude = near_place.geometry.location.lng();  
93  
94         console.log(autocomplete_latitude);  
95         console.log(autocomplete_longitude);  
96  
97         // Create a marker at the selected location  
98         var marker2 = new google.maps.Marker({  
99             map: map,  
100             title: 'Autocomplete location',  
101             position: { lat: autocomplete_latitude, lng: autocomplete_longitude }  
102         });  
103     });
```

```
function calculateAndAddDistance(fromAddress, toAddress) {  
    calculateDistance(fromAddress, toAddress, function (distance) {  
        if (distance !== null) {  
            // Add the distance to the total  
            totalDistance += distance;  
  
            // Convert the total distance to kilometers and miles  
            const totalDistanceInKilometers = totalDistance / 1000;  
            const totalDistanceInMiles = totalDistance / 1609.34;  
  
            console.log('Total Distance:', totalDistance);  
            console.log('Total Distance in Kilometers:', totalDistanceInKilometers);  
            console.log('Total Distance in Miles:', totalDistanceInMiles);  
  
            // Now, you can use the total distance as needed  
  
            time = ((totalDistanceInMiles * 0.621371) / 30) * 60;  
            payment_formula = 4 + 0.25 * time + 0.75 * totalDistanceInMiles;  
            document.getElementById("distance_miles").innerHTML = totalDistanceInMiles;  
            document.getElementById("eta").innerHTML = time.toFixed(2) + " minutes";  
            document.getElementById("payment").innerHTML = "$" + payment_formula.toFixed(2);  
            return time, totalDistanceInMiles, payment_formula;  
        }  
    });  
}  
  
function calculateDistance(origin, destination, callback) {  
    var service = new google.maps.DistanceMatrixService();  
    service.getDistanceMatrix(  
        {  
            origins: [origin],  
            destinations: [destination],  
            travelMode: 'DRIVING',  
            unitSystem: google.maps.UnitSystem.IMPERIAL, // or METRIC  
        },  
        function (response, status) {  
            if (status === 'OK') {  
                // Extract distance from the response  
                var distance = response.rows[0].elements[0].distance.value; // Distance in meters  
                callback(distance);  
            } else {  
                console.error('Error:', status);  
                callback(null);  
            }  
        }  
    );  
}
```



Functions Not Included

The final model implements gps connectivity as opposed to a tracking status bar.

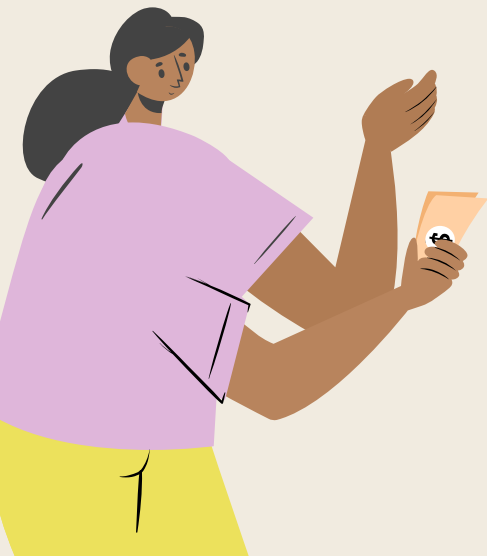


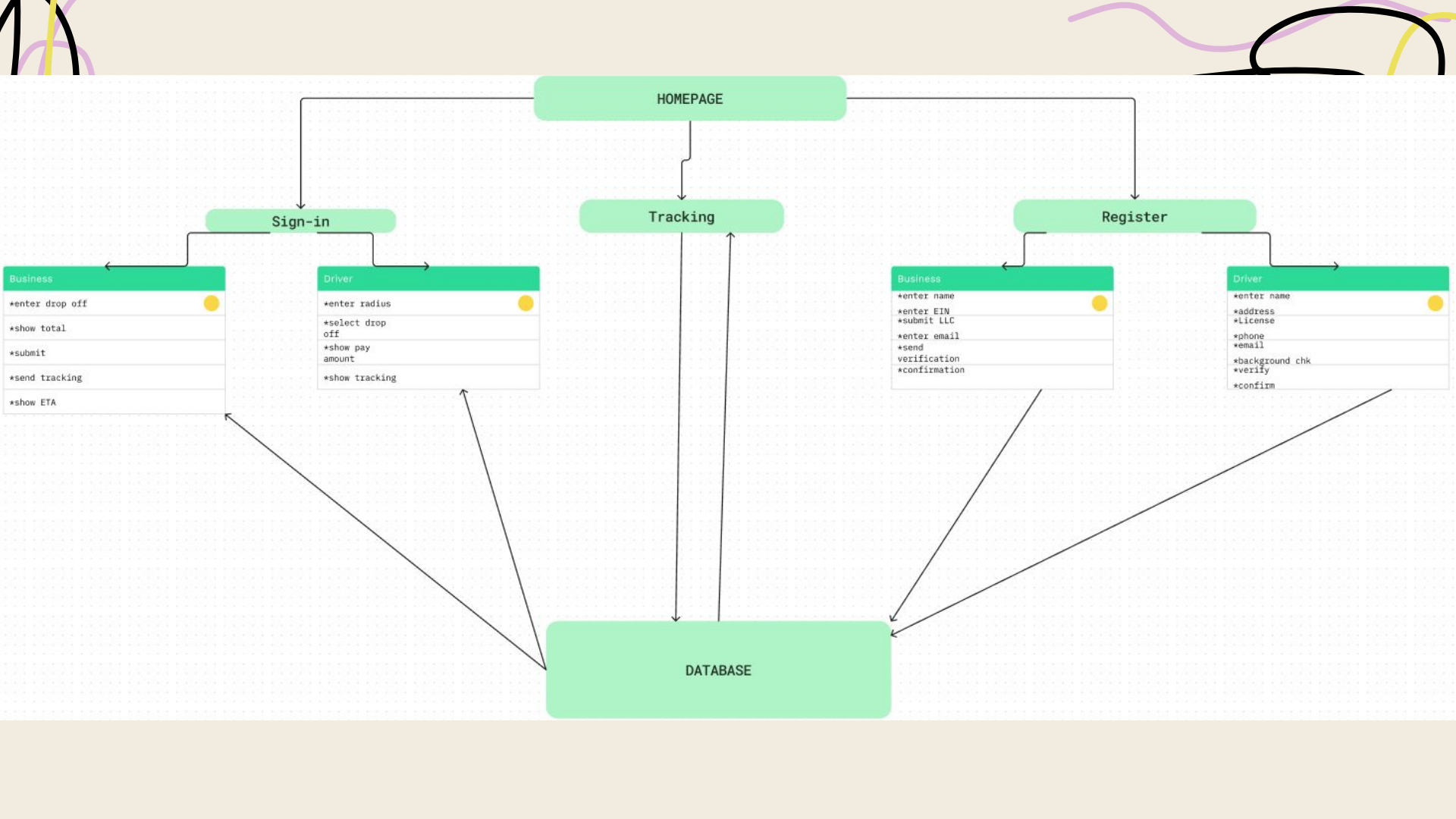


02

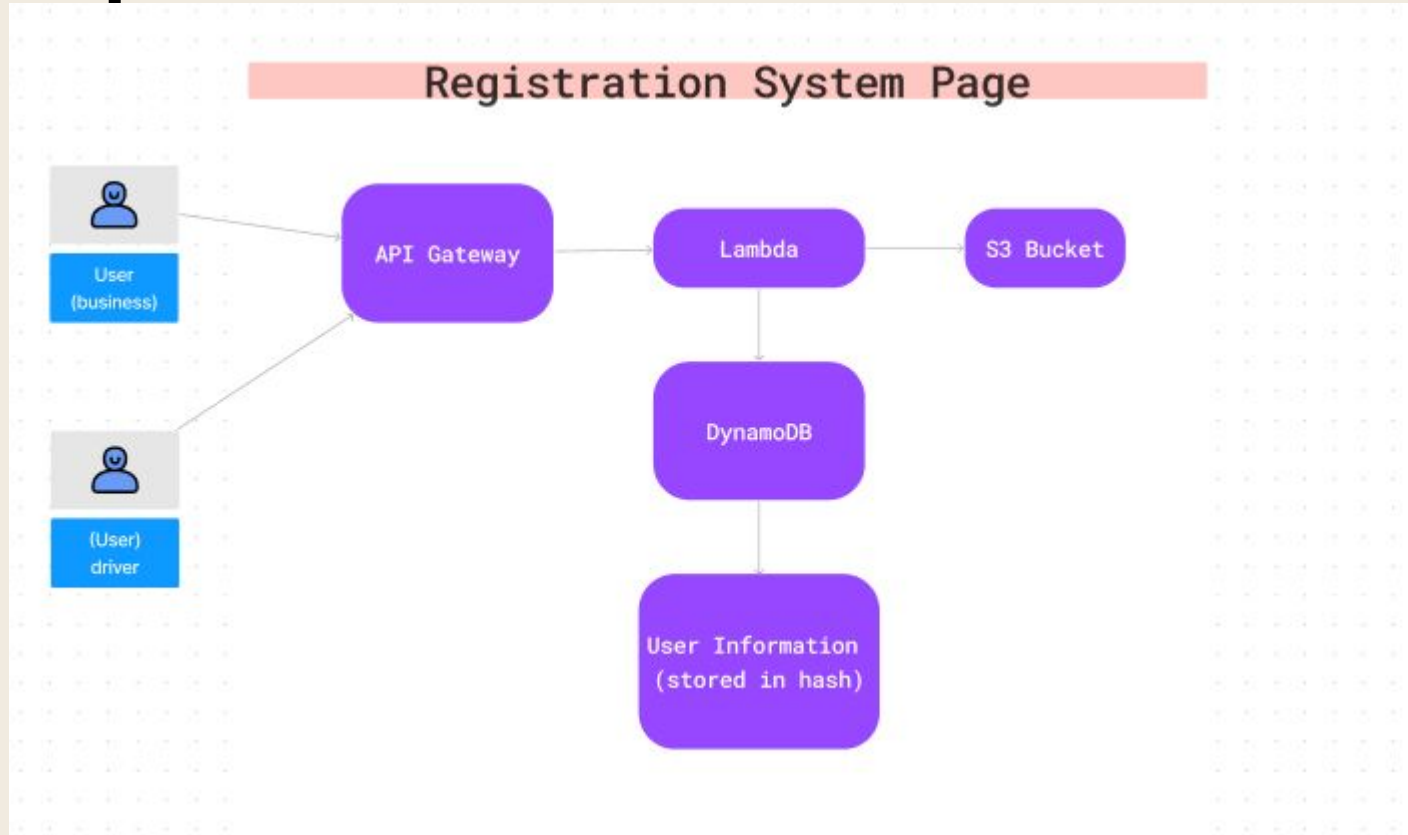
System Model

Software system structure



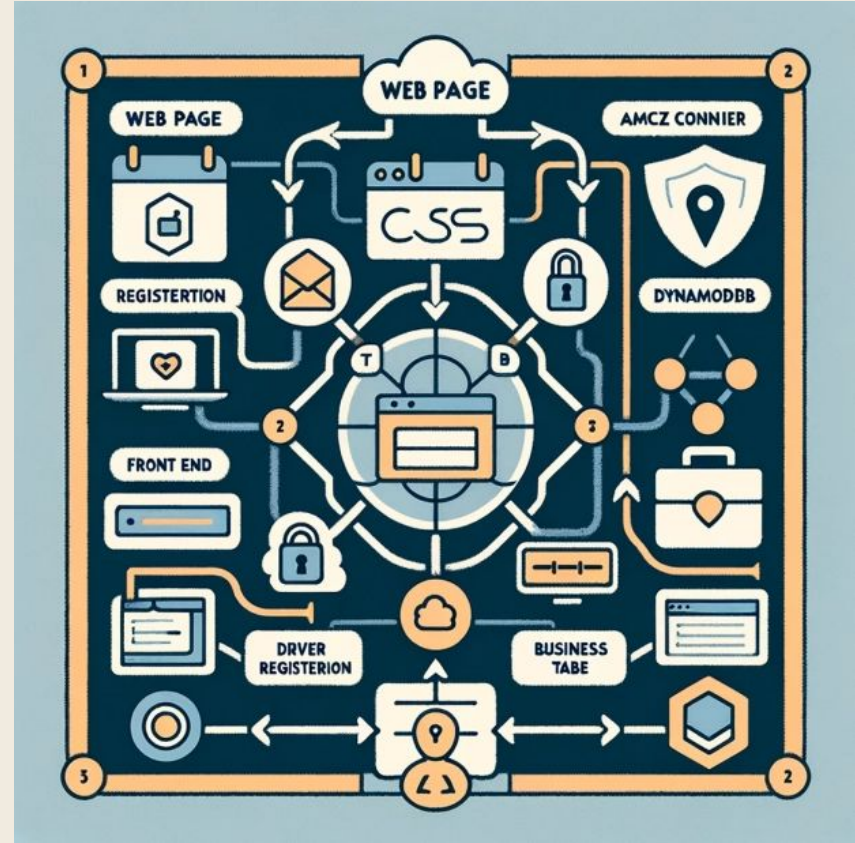


Components

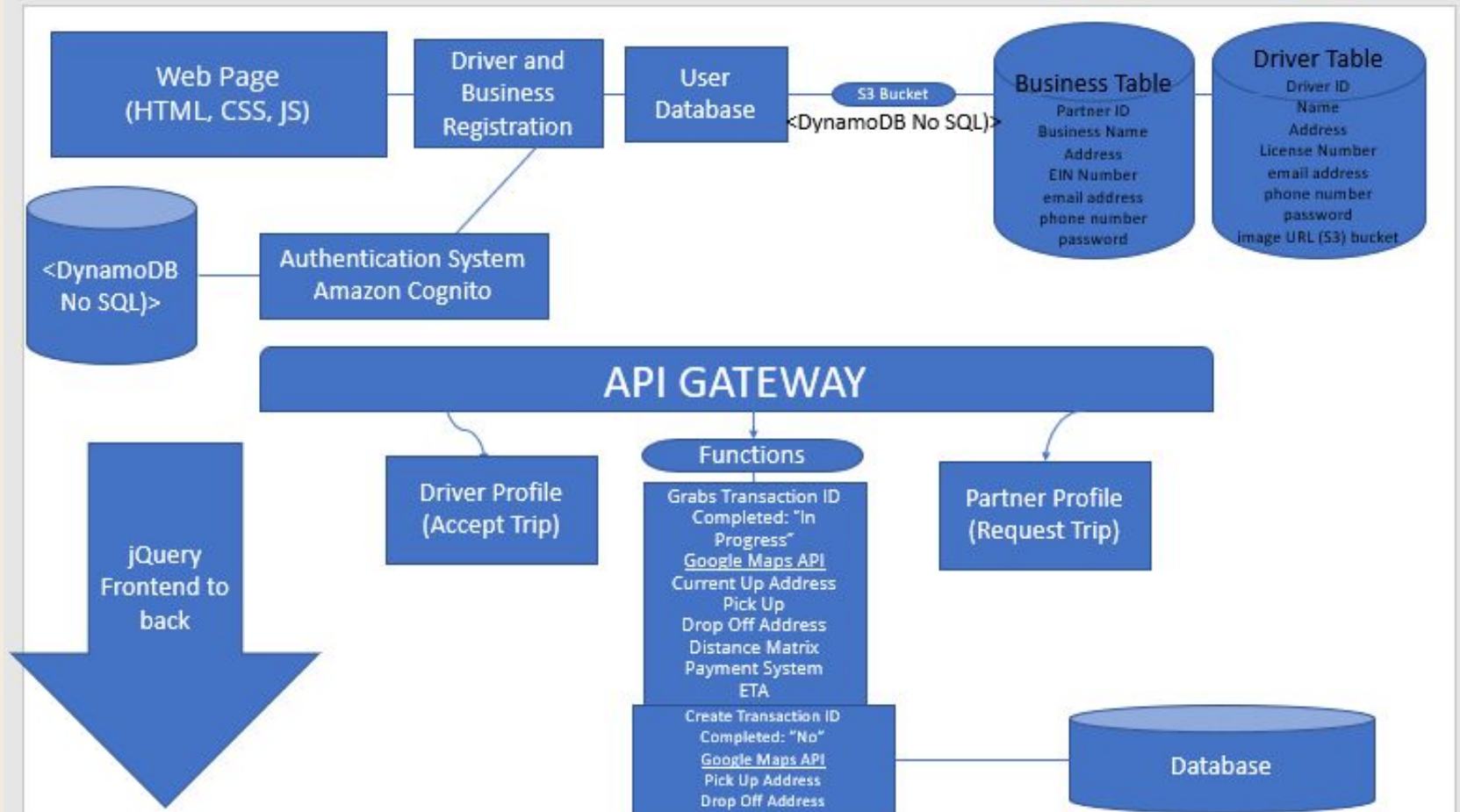


Representative System Model

- Components
- Microframeworks
- Hosted services
- Data services



Representative System Model



03

Data Analysis

Data system information and model structures.



Tables (7)

Any tag key

Any tag value

Find tables by table name

< 1 > ⚙

☐ AmplifyDataStore-q5ajv2vvoja5fcq6kuj5lbbiq-dev☐ driverProfile☐ driver_2☒ parterProfile☐ Todo-q5ajv2vvoja5fcq6kuj5lbbiq-dev☐ transaction☐ transaction2

parterProfile

Autopreview

View table details

▶ Scan or query items

Expand to query or scan items.

✔ Completed. Read capacity units consumed: 2

Items returned (9)



Actions ▼

Create item

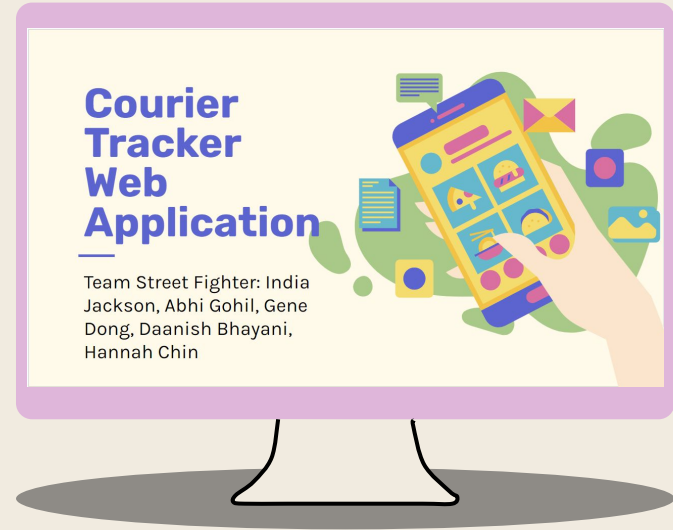
< 1 > ⚙

<input type="checkbox"/>	partnerI... ▼	email ▼	partnerAddress ▼	partnerEIN ▼	partnerNa... ▼	password ▼	phoneNum... ▼	pURL ▼
<input type="checkbox"/>	90457072	mrsjackson...	3435 Centerville ...	123456789	Homemade B...	JewelJH1	6784389882	https://s3.amazonaws.com/courier-tracker/904...
<input type="checkbox"/>	83090586	kenson.uza...	898 McDaniel Mill...	123456789	Testing 4	JewelJH1	4045555555	https://s3.amazonaws.com/courier-tracker/830...
<input type="checkbox"/>	34589027	indiajackso...	25 Park Place Atl...	123456789	GSU Compute...	JewelJH1	1234567890	https://s3.amazonaws.com/courier-tracker/345...
<input type="checkbox"/>	28183781	ijackson1@...	33 Gilmer Street ...	890123456	Gym Busters	JewelJH1	4044135555	https://s3.amazonaws.com/courier-tracker/281...
<input type="checkbox"/>	91771295	indiahenryp...	950 W. Peachtree...	123456789	Pho King Midt...	JewelJH1	1234567890	https://s3.amazonaws.com/courier-tracker/917...
<input type="checkbox"/>	32916355	india.bills.d...	495 Highland Ave...	789012345	Cookies to Go	JewelJH1	4043989329	https://s3.amazonaws.com/courier-tracker/329...
<input type="checkbox"/>	14235574	afk@gmail....	1231 Alpine Rd.	130123012	afk	Shwetaben...	9219112313	https://s3.amazonaws.com/courier-tracker/142...
<input type="checkbox"/>	15941461	lylgslmsi@...	32 Decatur Street...	222222222	Money Scam...	JewelJH1	4045555555	https://s3.amazonaws.com/courier-tracker/159...
<input type="checkbox"/>	24207444	akc7mfoy@...	455 14th Street ...	111111111	GSU Fighters	JewelJH1	4045555555	https://s3.amazonaws.com/courier-tracker/242...

04

Demonstration

Live demo of user case
scenarios



05

Conclusion

Overview and our
challenges



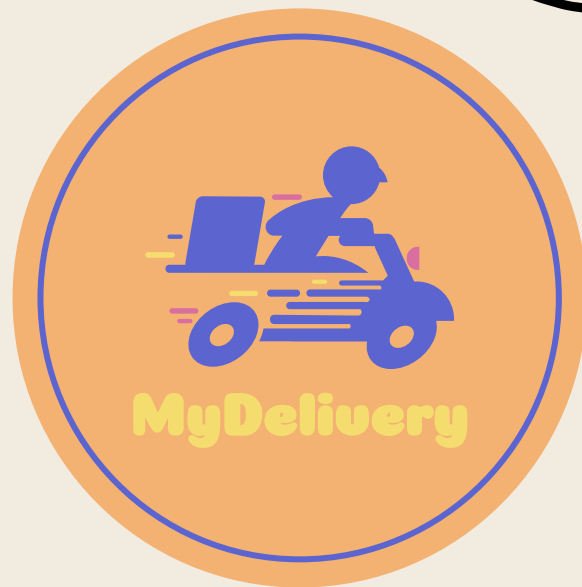
Final Analysis

Courier Tracker is a beneficial alternative for the retailer that optimizes their delivery processes, reduces fuel costs, and labor expenses. Providing a robust delivery tracking system can differentiate the retailer from its competitors, attracting a larger customer base and expanding its market share.



Complex Analysis

- Most tedious portions of the project:
 - validation on all input fields for driver and partner data
 - Matching driver IP address to location



Thanks!

Do you have any questions?



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