

Module 1 - Video 1.3

The Waze data structure

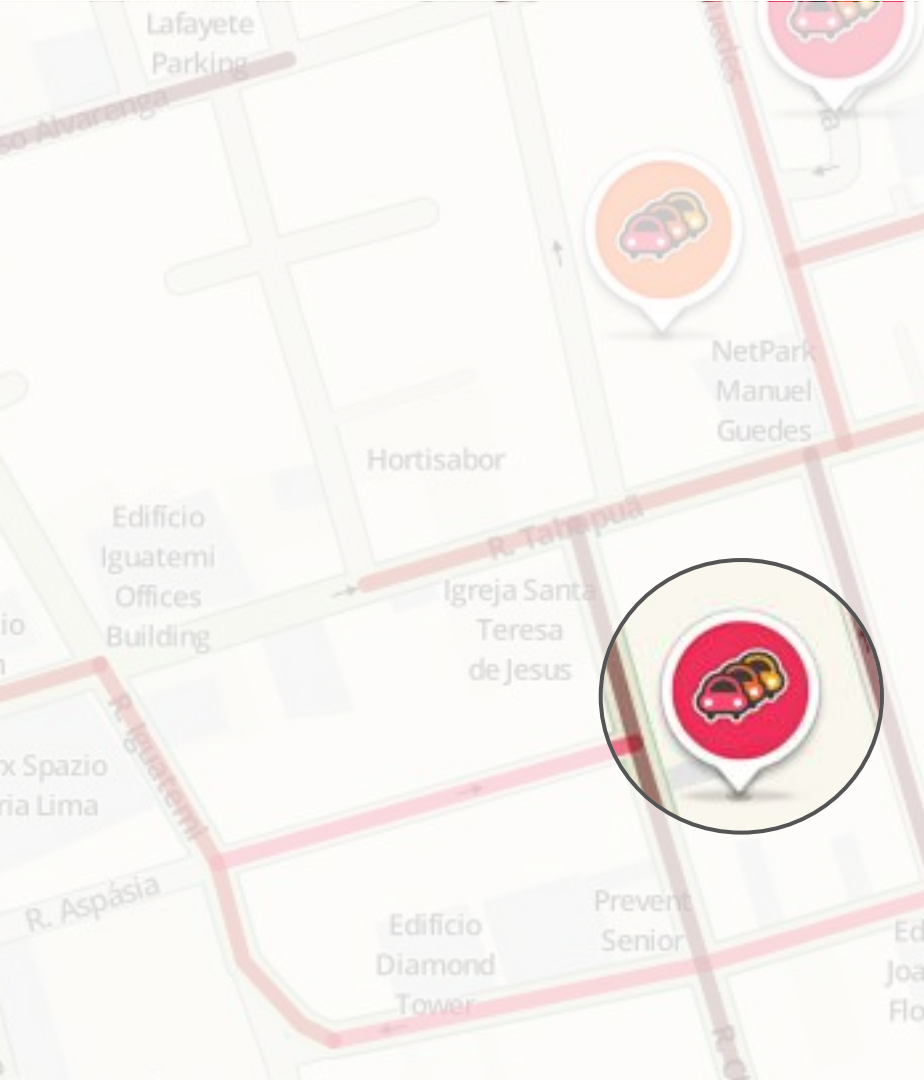


JSON

```
{  "items": [  
    "{item1": "value1"},  
    "{item2": {  
        "subitem1": "value2.1",  
        "subitem2": 22,  
        "subitem3": "value2.3",  
    },  
    {"item3": 3}  
  ]  
}
```

XML

```
<items>  
  <item1> value1 </item1>  
  <item2>  
    <subitem1> value2.1 </subitem1>  
    <subitem2> 222 </subitem2>  
    <subitem3> value2.3 </subitem3>  
  </item2>  
  <item3> 3 </item3>  
</items>
```



Map to alerts

Time

2018/09/20, 23h55

Address

R. Claudomiro Amazonas, São Paulo, Brasil

Type

Jam: stand-still traffic

Location

Latitude: -23.585318

Longitude: -46.679824

...

Data to CSV

Comma Separated Value

Time

2018/09/20, 23h55

Address

R. Claudomiro Amazonas,
São Paulo, Brasil

Type

Jam: stand-still traffic

Location

Latitude: -23.585318

Longitude: -46.679824

Data to CSV

Comma Separated Value

Time

2018/09/20, 23h55

Address

R. Claudomiro Amazonas,
São Paulo, Brasil

Type

Jam: stand-still traffic

Location

Latitude: -23.585318
Longitude: -46.679824



time	country	city	street	type	subtype	lat	lng
2018-09-21 23:55:00:000	BR	São Paulo	R. Claudomiro Amazonas	JAM	JAM-STAND- STILL-TRAFFIC	-23.585318	-46.679824

Data to CSV

Comma Separated Value

Time

2018/09/20, 23h55

Address

R. Claudomiro Amazonas,
São Paulo, Brasil

Type

Jam: stand-still traffic

Location

Latitude: -23.585318
Longitude: -46.679824



time	country	city	street	type	subtype	lat	lng
2018-09-21 23:55:00:000	BR	São Paulo	R. Claudomiro Amazonas	JAM	JAM-STAND- STILL-TRAFFIC	-23.585318	-46.679824



```
time, country, city, street, type, subtype, lat, lng  
2018-09-21 23:55:00:000, BR, São Paulo, R. Claudomiro Amazonas, JAM,  
JAM-STAND-STILL-TRAFFIC, -23.585318, -46.679824
```

Data to XML eXtensible Markup Language

Time

2018/09/20, 23h55

Address

R. Claudomiro Amazonas,
São Paulo, Brasil

Type

Jam: stand-still traffic

Location

Latitude: -23.585318

Longitude: -46.679824

Data to XML eXtensible Markup Language

Time

2018/09/20, 23h55

Address

R. Claudomiro Amazonas,
São Paulo, Brasil

Type

Jam: stand-still traffic

Location

Latitude: -23.585318
Longitude: -46.679824



```
<title> alert </title>
<pubDate> Thu Sep 20 23:55:00 +0000 2018 </pubDate>
<georss:point> -23.585318 -46.679824 </georss:point>
<linqmap:type> JAM </linqmap:type>
<linqmap:subtype> JAM_STAND_STILL_TRAFFIC </linqmap:subtype>
<linqmap:street> Av. Claudomiro Amazonas </linqmap:street>
<linqmap:city> São Paulo </linqmap:city>
<linqmap:country> BR </linqmap:country>
```


Data to JSON

JavaScript Object Notation

Time

2018/09/20, 23h55

Address

R. Claudomiro Amazonas,
São Paulo, Brasil

Type

Jam: stand-still traffic

Location

Latitude: -23.585318

Longitude: -46.679824

Data to JSON

JavaScript Object Notation

Time

2018/09/20, 23h55

Address

R. Claudomiro Amazonas,
São Paulo, Brasil

Type

Jam: stand-still traffic

Location

Latitude: -23.585318
Longitude: -46.679824



```
{  "startTime": "2018-09-20 23:55:00:000",
  "endTime": "2018-09-20 23:56:00:000",
  "alerts": [
    { "country": "BR",
      "city": "São Paulo",
      "street": "R. Claudomiro Amazonas",
      "location": { "x": -46.679824, "y": -23.585318 },
      "type": "JAM",
      "subtype": "JAM_STAND_STILL_TRAFFIC" }
  ]
}
```

Full Structure

```
{  
  "jams": [ ... ],  
  "alerts": [ ... ],  
  "irregularities": [ ... ],  
  "startTime": "2018-09-20 23:55:00:000",  
  "endTime": "2018-09-20 23:56:00:000",  
  "startTimeMillis": 1537487700000,  
  "endTimeMillis": 1537487760000  
}
```

In the next videos...

```
{  
  "jams": [ ... ],  
  "alerts": [ ... ],  
  "irregularities": [ ... ],  
  "startTime": "2018-09-20 23:55:00:000" ,  
  "endTime": "2018-09-20 23:56:00:000" ,  
  "startTimeMillis": 1537487700000,  
  "startTimeMillis": 1537487760000  
}
```

See you in the
next video!

