



**Spark**  
*Streaming*

Spark SQL

|systolic|diastolic|

61	94
66	75
76	94
80	97
108	94
112	60
125	71
127	51
128	99
132	79
137	110
143	115
149	110
162	74
163	119
172	83
181	112
182	106
193	70
198	94

```
root
|-- destination: string (nullable = true)
|-- eventTime: string (nullable = true)
|-- guid: string (nullable = true)
|-- payload: struct (nullable = true)
|   |-- data: struct (nullable = true)
|   |   |-- diastolic: long (nullable = true)
|   |   |-- systolic: long (nullable = true)
|   |   |-- format: string (nullable = true)
```

Time: 2017-11-20 23:05:46

```
{
  {
    "guid": "0-ZZZ123456781F",
    "destination": "0-AAA12345678",
    "eventTime": "2017-11-20T23:05:42.831416",
    "payload": {
      "format": "urn:finalproject:sensor:bloodpressure",
      "data": {
        "systolic": 193,
        "diastolic": 70
      }
    }
  },
  {
    "guid": "0-ZZZ123456786U",
    "destination": "0-AAA12345678",
    "eventTime": "2017-11-20T23:05:42.831489",
    "payload": {
      "format": "urn:finalproject:sensor:bloodpressure",
      "data": {
        "systolic": 128,
        "diastolic": 99
      }
    }
  },
}
```

There are 15 hypertension

	systolic	diastolic
1	61	94
2	76	94
3	80	97
4	108	94
5	128	99
6	137	110

There are 5 hypotension

systolic	diastolic
61	94
66	75
76	94
80	97
127	51

There are 3 normal records

systolic	diastolic
112	60
125	71
132	79