



Peaceland Statistics

Peacemakers are convinced that we need to keep every peacemaker report in order to make statistics and improve their Peaceland harmony. But they still don't know what kind of question they will want to address. While designing the peacewatcher system, we decided to store each drone report in MongoDB. Here are some example of statistics we can do with the database.

Spark-MongoDB Statistics

- Get basic information on the database such as the number of reports in the database or the average peacescore.

```
// Print the average peacescore
println("The average peacescore is : ")
df.select(mean(df("score")))
.show()
```

- Filter the database to obtain all citizen with a peacescore higher than 80 for example.

```
// Print the name of people with score higher than 80
df.select(df("first_name"), df("last_name"), df("score"))
.filter(df("score")>80)
.show()
```

- Filter the database to list the top 5 worst citizen.

```
// Print the worst citizens >:(
println("This citizens have to go to peace camp : ")
df.select(df("first_name"), df("last_name"), df("score"))
.orderBy(asc("score"))
.show(5)
```

- Find all reports linked to a certain location to investigate a particular area.

```
// Find reports around a location
df.select(df("last_name"), df("first_name"), df("score"), df("lat"), df("long"))
  .filter((df("lat") > -20.0000) && (df("lat") < 20.0000) && (df("long") > 100.0000) && (df("long") < 120.0000))
  .show()
```

MongoDB Data Visualization

Since numbers and table can be hard to understand, we decided to provide useful visualization to the scientists and governors of Peaceland using mongoDB Atlas.



