Temperature Exploration

Tomas Letelier, José Díaz, Marcelo Becerra

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¿Will you survive?

Limits Of Human Survival

We cannot survive in any condition. We need to take care of where we live, especially how we transform the places we live

Why We Need To Analyse Temperature?

As you could see, weather linked to human survival. One of it bigger and determinant factors is temperature

Tools Used

Pig Latin

We decided to use PigLatin because it's simple, easy to program and its similar to SQL.

Data

Every good project has a .... huge and massive amount of data,

one that broke your memory

We use Climate Change: Earth Surface Temperature Data dataset. It's a monthly temperature series from 1750 to 2013. It's part of a scientific initiative pursuing to answer observations made by climate change sceptics.

Methodology

We are nothing without knowing what we are going to do…

Ok we are doomed

What we Analyze in Summary

- **Trends (T):** The evolution of temperatures
- **Zoning (Z):** Changes per zone
- **Detect Events (DE):** Around the globe
- **Detect inhospitable places (DiP):** Where is already becoming dangerous

Guideline Questions

- -¿Which are the most affected countries by the "changes" in temperature? **Z, T**
- -¿Increase or decrease *delta* of temperatures over the years? (Δ = Max - min) **T**
- -¿What are the trend of *average* temperature over the years? **T**
- -¿Which is the tendency of the average temperature per zone? **Z, T**
- -¿Which is the tendency from the extreme marks zones (-20, 20 °C) **Z, T**

If we define a threshold, like 40 °C (an extreme heat temperature)

- -¿How many times this threshold is exceed? **T, DE**
- -¿Can we identify heat and cold waves? **DE**
- -¿Which places are becoming (tendencies) inhospitable? **DiP, T**

Results

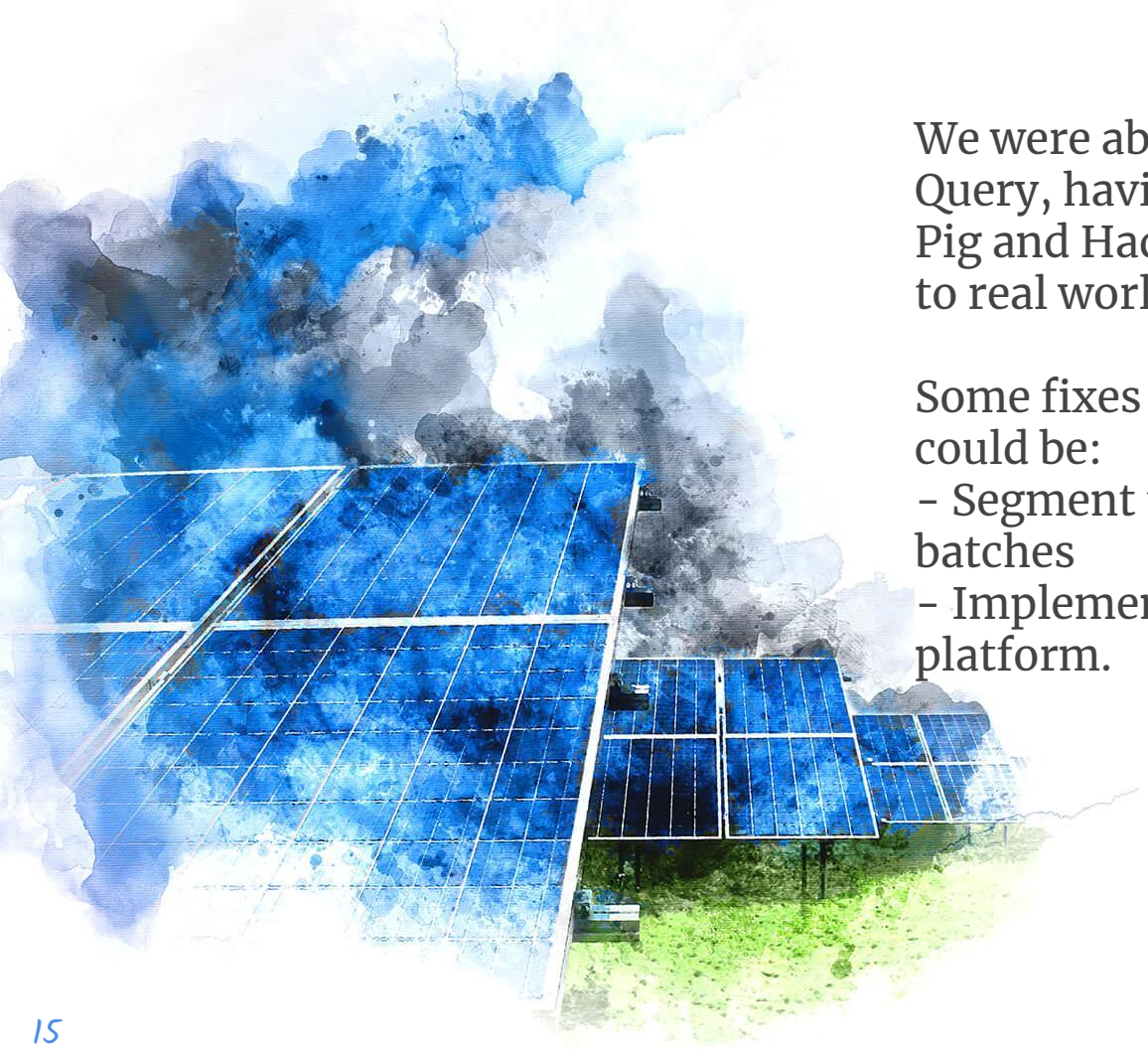
There are some moments in life that are called happiness!

We managed to develop the Pig Queries for all the questions.

Unfortunately, due to the size of the dataset and the demand of the server, the pig process crashed so we couldn't obtain any results.

Conclusions

We didn't start the fire!



We were able to create the codes for each Query, having successfully learned to use Pig and Hadoop in a way that can be applied to real world problems.

Some fixes to the problems we encountered could be:
- Segment the original dataset into smaller batches
- Implement the Queries in another platform.

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