

Session 2 – Visual Analytics using Tableau

Case study three: Exploratory analysis of Geographical data

Dataset (press CTRL+ CLICK to open the link): [Download](#)

Data set summary: Magnitude 6 + earthquakes

Source: Tableau

Scenario: Imagine you are a data analyst at an Insurance company trying to gain insights on major earthquakes and determine their hotspots in each continent. This analysis using historical data on earthquakes would enable you to develop insurance products suitable for the customers living in these active regions.

1. Create a geographical visualization to plot all earthquakes that occurred on Earth between **1900** and **2013**. Identify the magnitude of each earthquake?

Information reference:

geo.mtu.edu/UPSeis/magnitude.html

2. Using a scatter-plot color try to address following questions.
 1. Is there a correlation between **Depth** and **Magnitude** variables for occurrences of (>7 magnitude on Richter scale) mega earthquakes?
 2. Summarize your findings
3. Which country or continent had higher occurrences of (> 7 magnitudes on Richter scale) earthquakes? **Hint:** Using a Lasso tool in Tableau to manually select marks (data points) in your visualization. After selecting the data points, export them to an excel file)

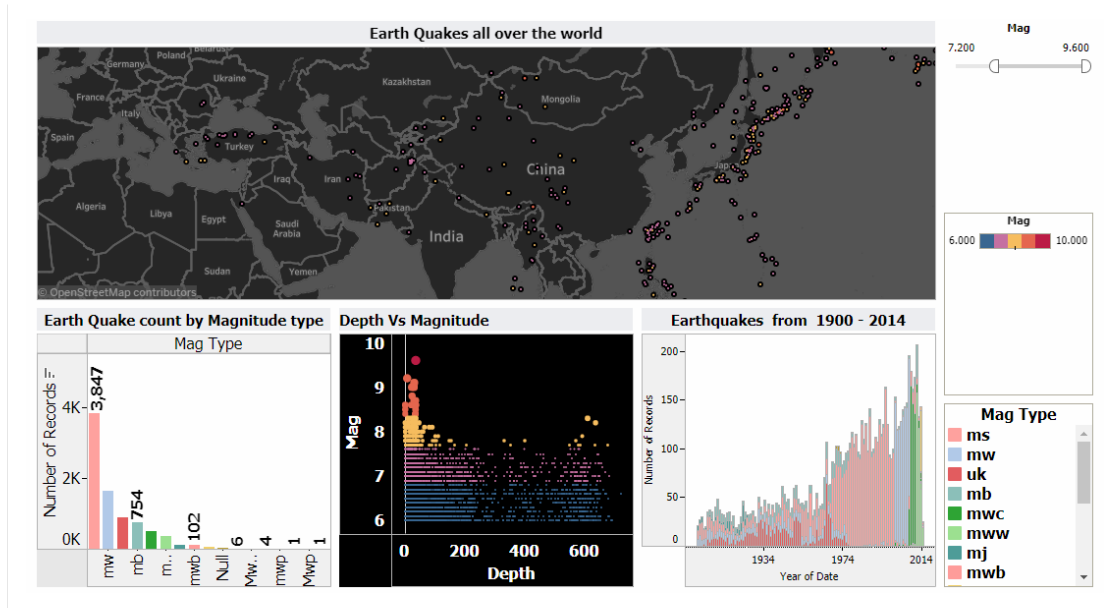
Information reference:

onlinehelp.tableau.com/current/pro/desktop/en-us/inspectdata_selectiontools.html

4. Finally prepare a dashboard and storyline summarizing your analysis on earthquakes and their occurrences in various places of the earth. This aim of this report is to communicate these insights to other stakeholders in a visually appealing format.

The final output could look like the representation on the next page

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Case study 4: Homework Mini Project

Dataset (press CTRL+ CLICK to open the link): [Download](#)

Data set summary: 1000 startups

Source: Superdatascience

Scenario: Imagine you are an angel investor actively researching investment opportunities in top 10 startups. Describe industries they exist in. What factors would you consider in deciding investment?

Guidelines: use all the graphs and metrics you think are suitable for your decision making.