

DATA VISUALISATION (CS7DS4)

Assignment 2 : Graphics Fundamentals

Submitted By:

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A. Basic Shapes and Colors (Nightingale's Visualisation)

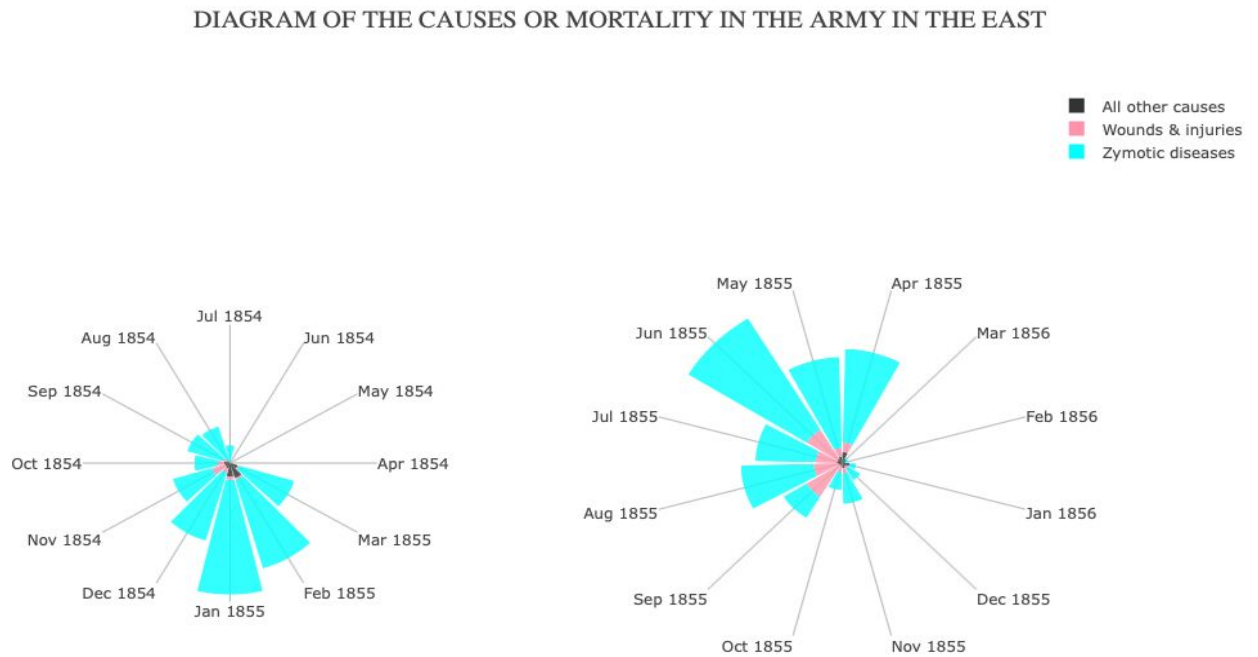


Fig1: Nightingale's Visualisation

B. Minard's Map

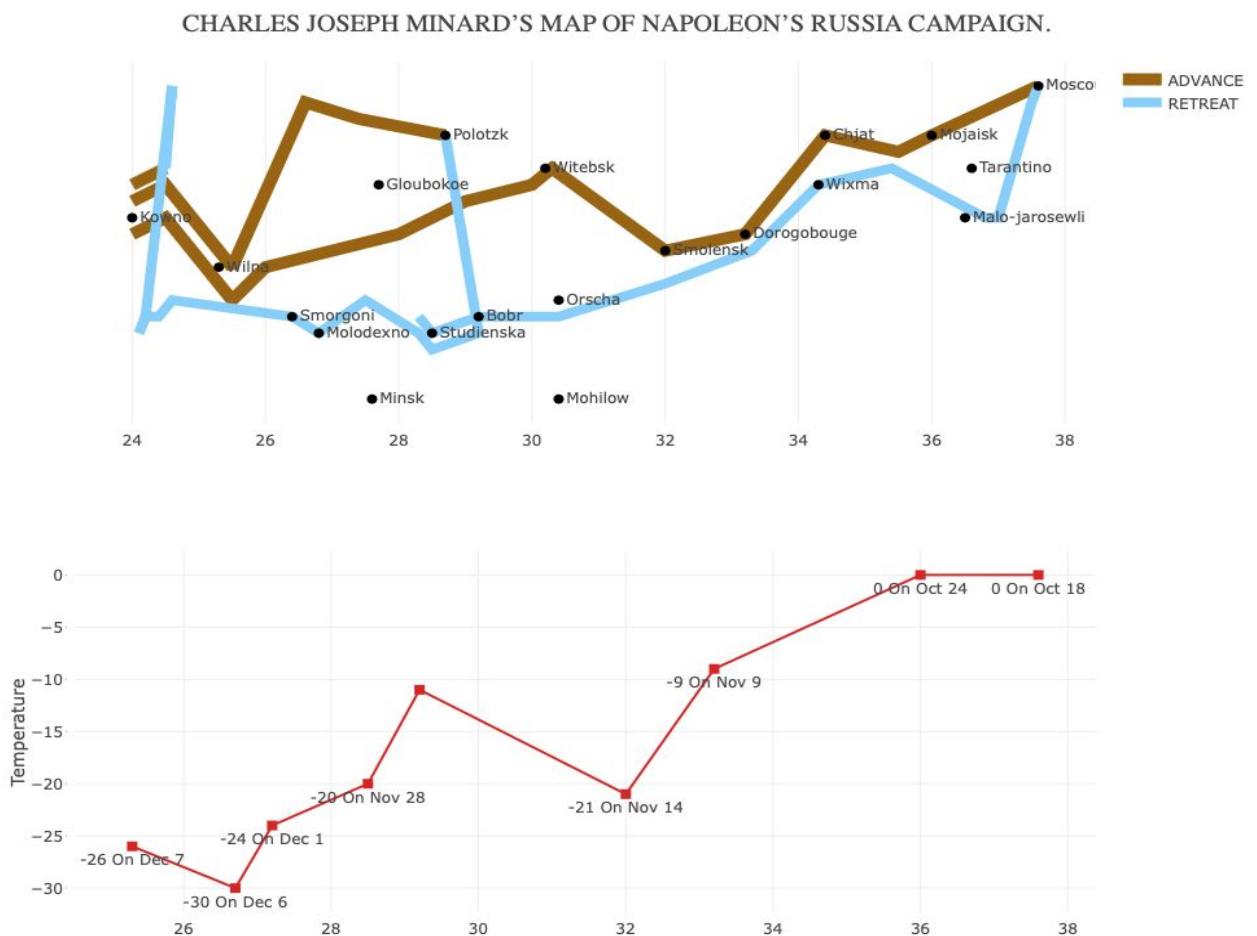


Fig2: Napoleon's Russia Campaign

- The above visualisation [Fig2] is the replication of one of the best statistical drawing created to show Napoleon's' 1812 March.
- The graph shows the advance and retreat of Napoleon's' Army from Russia including the cities and temperature during retreat.
- The map shows three different sets of data, cities covered by the army, number of soldiers in the campaign and temperature with date during retreat.
- Plotly has been used as the major driver for this visualisation.
- The direction of the army in the visualisation has been shown by two colors, brown and sky blue. Brown denotes the direction leading to Russia (Advance) and sky blue denotes the direction leading out from Russia (Retreat).
- Temperature with the dates have been represented through the red color graph as a subplot of the map.

- On visualising the data, it can be concluded that while entering Russia Napoleon's army had 340000 troops which slumped upto 6000 during the course of its retreat.
- Different traces for advance and retreat have been created using plotly and then combined to generate the final map.
- The campaign started with 340000 troops from Kowno. When it reached Wixma, the number of troops collapsed to 100000.
- From Wixma the campaign started retreating and advancing. In this course Napoleon's troops were decreased continuously with only 6000 troops being left at the end.
- The temperature graph is represented in red. It has been shown as a subplot by creating a different trace in the plotly implementation.