Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

School of Computer Science and Statistics

CS7DS4 / CSU44065 Data Visualization 2019-20 Assignment 1.2

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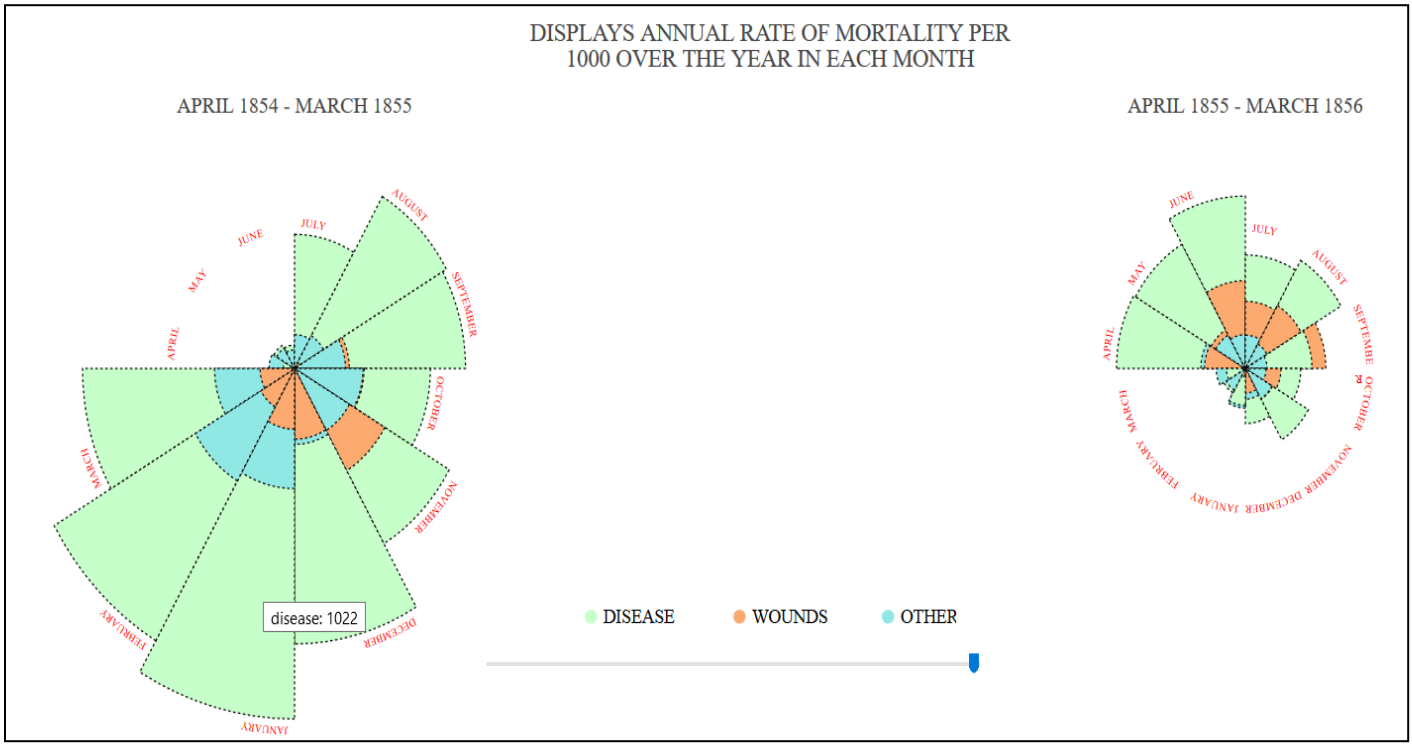
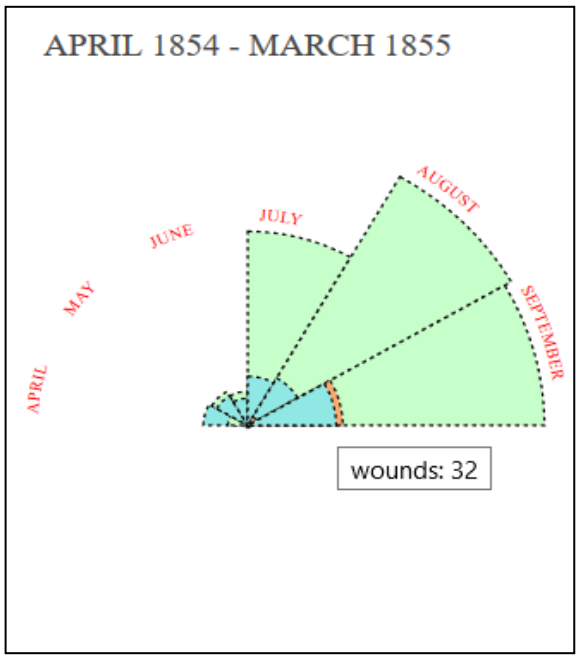
Signed: Tanvi Bagla

Date: 01-03-2020

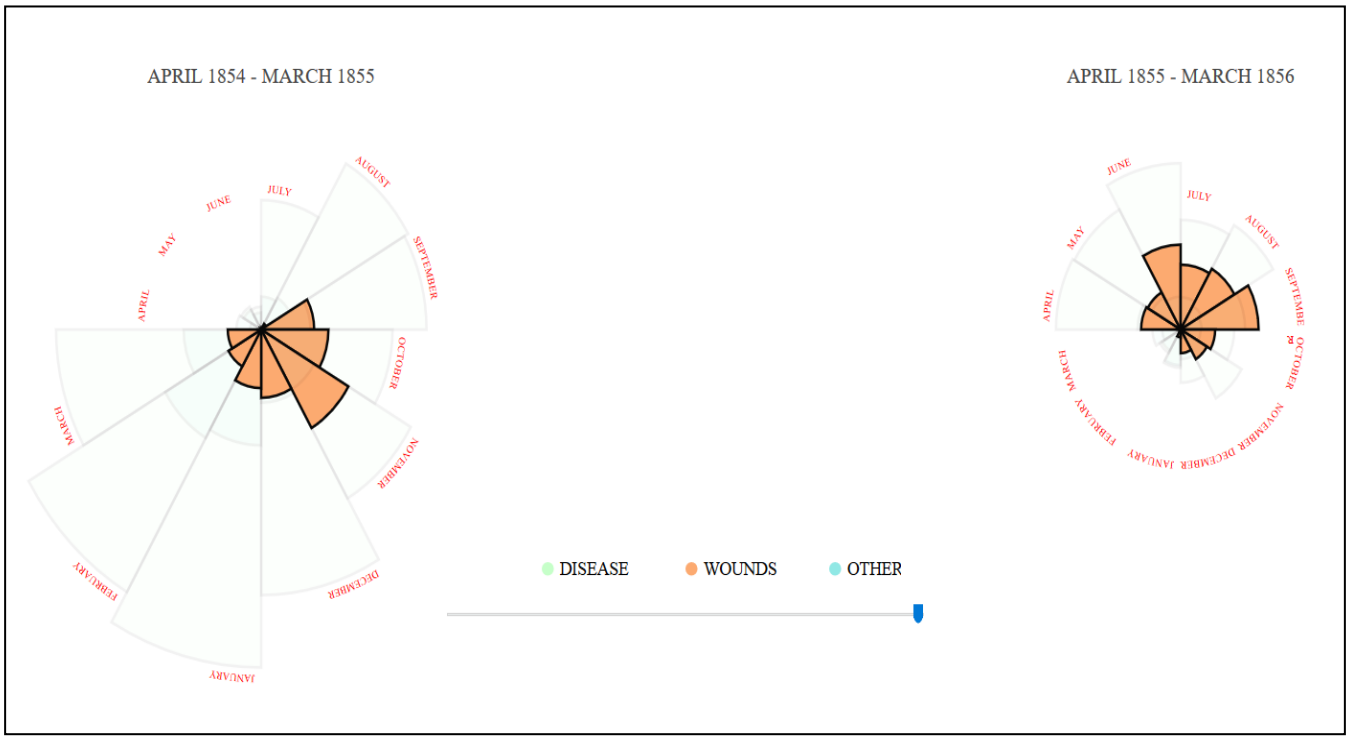
Nightingales Rose Chart



The above radial charts shows the rate of British deaths in the course of the Crimean War, caused due to Zymotic Diseases, Wounds and Injuries and other reasons, in each month corresponding to the year April 1854-March 1885 and April 1855-March 1856. The green wedges denote the number of deaths caused by Zymotic disease, blue wedges denotes number of deaths from wounds and blue wedges denote number of deaths from other causes. Note that the area of each part of each wedge is calculated from the centre and the value of area is considered for mortality rate annually on the scale of 1000. The tooltip displays the value of mortality rate for



This figure highlights that the major deaths in the first 6 months of the year 1854 are caused due to Zymotic disease and other causes. Deaths caused due to wounds and injuries are almost negligible. Mortality rate of 32 deaths per 1000 is noted in the month of September.

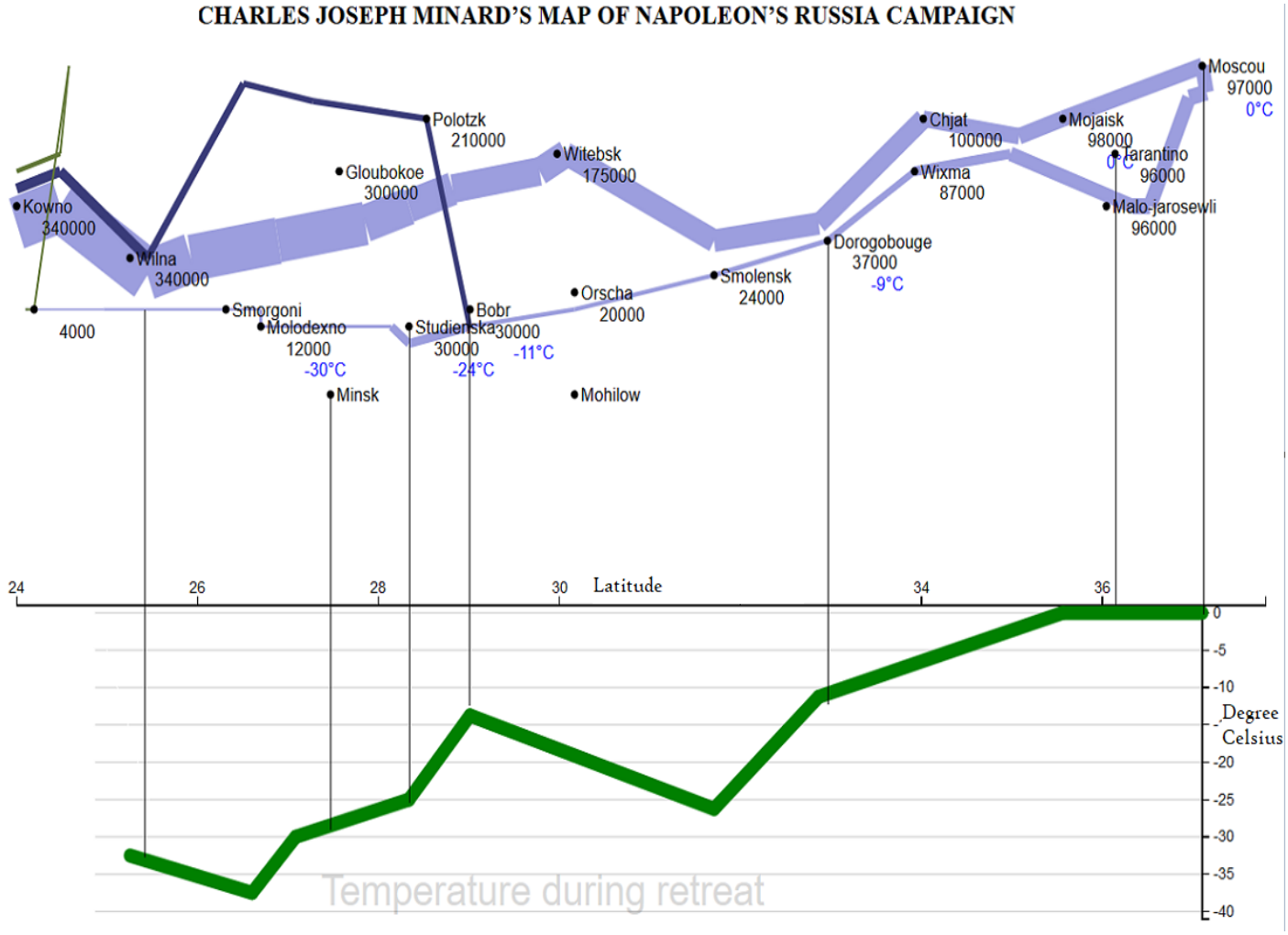


The above figure highlights the death rate caused only by wounds in both the years.

Tools and Language used:

The chart is designed using javascript library D3.js (version 5.15.0) using elements like HTML, SVG and CSS. The language used is Javascript for calculations. Tool used to run the script is NodeJs, Notepad++ is used for editing the code. The data format used is .json file. HTML runs on the local server.

Minard's Map



The first map above is the Minard's map that displays the flow of the people in Napoleon's army departing the Polish-Russian border. Following are the observations from above map-

1. Major part of army departs from the city of Kowna towards Moscou city (denoted by purple), smaller part from Kowna to Polotzk (denoted by Indigo) and the smallest army from Kowno.
2. The upper thicker band showing the large army going to Moscow vs. the below narrow band showing the small army returning.
3. Information displayed: geography, temperature, the course and direction of the army's movement, and the number of survivors.
4. The widths of the gold (outward) and black (returning) paths represent the size of the force, one millimeter to 10,000 men.
5. Around 4000 army personnel returned back after the end of war.

Other map shows the causality chart depicting the dropping temperature during the retreat. It is depicted that Napoleon's troops suffer even more losses, returning to France due to weather conditions.

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Github link for Nightingale Rose Chart: https://github.com/t0504b/Nightingale-Coxcomb-Chart

Github link for Minards map: https://github.com/t0504b/Minards-map