

## Exercise 5.1

### Visualization Number 1:

The visualization has a perspective distortion because the lines run towards each other. Overall, the calculation of the height of bars is inconsistent and seems to be distorted, which can be seen for example in the bars of boat and small airplane: The bar for the range of the boat is higher than the one for the plane, but the boat reaches only 60 km with one barrel of oil and the small airplane reaches more, 100 km. The big airplane reaches only 1 km, yet the bar is nearly as high as the bar of the small airplane.

In addition, the explanatory text is too small for a smartphone screen, which makes it almost impossible for the user to read the more detailed explanations.

### Visualization Number 2:

The bar height of the blue bar is wrong and additionally the bars are wrongly sorted in the horizontal plane. The result for the second candidate is only 9.4% and the third candidate from the left scored 14%, yet the third result is represented by a lower bar.

The visualization uses glyphs for candidates instead of names, the glyphs are all covered with a color except for the glyph in the blue bar, which clearly highlights it. Overall, the visualization suggests another election result.

### Visualization Number 3:

The geographic mapping of election results over time makes it difficult to directly compare developments over time in the respective regions; the patterns of respective changes over time can be compared well. In addition, the legend is unnecessarily complex in design as the legend itself is again a glyph depicting election results over time. It would be simpler to annotate only the colors of the respective parties.

### Visualization Number 4:

It is unclear what is being depicted at all. Presumably, compositions of different types of muesli are visualized. However, there is no title and individual lines are difficult to read due to the large number of lines and their occlusion. This makes it impossible for the user to track individual ingredients. The muesli varieties are not highlighted and reside among various ingredients in the yellow segment, which makes it difficult to find individual muesli varieties on the circle.