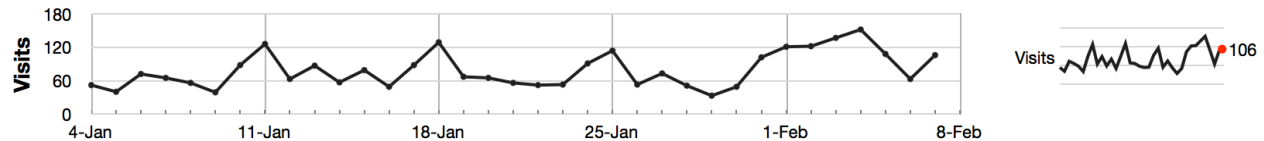


Data Science, 2022

Tut 8: Information Visualization

Question 1

The data shown here are the number of visits to a university website for a particular statistics course. There are 90 students in the class.



1. What are the names (type) of the 2 plots shown?
2. List any 2 interesting features in these data.

DS Tutorial 8

Question 1

1. Time series plot and sparkline plot
2. (i) There is a weekly pattern seen indicated by a spike every 7 days
(ii) On spike days the visits are more in no. than no. of students
(iii) The weekly pattern is broken during February 1st week indicating some abnormal situation.

Question 2

What are the names of the axes on a bar plot?

Question 2

A bar plot ~~has~~^{has} category axis and volumes

Question 3

Which types of features can the human eye easily pick out of a time series plot?

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Question #3

Humans can easily pick out trends like upwards or downwards, or the difference in density of data or any repeating patterns or any abnormalities or gaps.

Question 4

Why is the principle of minimizing "data ink" so important in an effective visualization? Give an scientific or engineering example of why this important.

Question 4

Data ink is the ratio of pixels used to represent the data to the total number of pixels in the entire display.

This is important because minimizing it would reduce no. of pixels represented & resulting in less information to visualize.

It is also important for conditions in which ~~more~~ visualization needs to be done faster like medical charts, etc.

Question 5

Describe what the main difference(s) between a bar chart and a histogram are.