STACK DATA STRUCTURE

DAY 1:

**What is histogram ?**

A histogram is a type of graph that is widely used in mathematics, especially in statistics. The histogram represents the frequency of occurrence of specific phenomena which lie within a specific range of values, which are arranged in consecutive and fixed intervals. The frequency of the data occurrence is represented by a bar, hence it looks very much like a bar graph. Unlike a bar graph this has continuous frequency distribution.

Source:

<https://www.youtube.com/watch?v=ZmnqCZp9bBs&list=PLrmLmBdmIlptv-uwAgP8k5pGdlHedncq1>.

<https://www.youtube.com/watch?v=RVIh0snn4Qc>.

https://simple.wikipedia.org/wiki/Histogram.

DAY 2:

Where it is used ?

The major difference is that a **histogram** is only **used** to plot the frequency of score occurrences in a continuous data set that has been divided into classes, called bins. Bar charts, on the other hand, can be **used** for a great deal of other types of variables including ordinal and nominal data sets.

In **math**, a **histogram** is a visual way to display frequency data using bars. A feature of **histograms** is that they show the frequency of continuous data, such as the number of trees at various heights from 3 feet to 8 feet.

* + to display large amounts of data values in a relatively simple chart form
  + to tell relative frequency of occurrence
  + to easily see the distribution of the data
  + to see if there is variation in the data
  + to make future predictions based on the data

**source:**

### <https://www.quora.com/In-real-life-situations-how-is-data-graphed-in-a-histogram-plot>.

### <https://statistics.laerd.com/statistical-guides/understanding-histograms.php>.

### Importance of histogram:

https://socratic.org › Statistics › Organizing and Summarizing Data › The Histogram.

DAY :3

HACKERRANK SOLVAED PROBLEMS:

1. Arrays – DS : <https://www.hackerrank.com/challenges/arrays-ds/problem>

# 2D Array – DS : [**https://www.hackerrank.com/challenges/2d-array/problem**](https://www.hackerrank.com/challenges/2d-array/problem)

# Left Rotation : [**https://www.hackerrank.com/challenges/array-left-rotation/problem**](https://www.hackerrank.com/challenges/array-left-rotation/problem)

# . Balanced Brackets : [**https://www.hackerrank.com/challenges/balanced-brackets/problem**](https://www.hackerrank.com/challenges/balanced-brackets/problem)

# . Equal Stacks : [**https://www.hackerrank.com/challenges/equal-stacks/problem**](https://www.hackerrank.com/challenges/equal-stacks/problem)

# . Largest Rectangle: https://www.hackerrank.com/challenges/largest-rectangle/problem

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