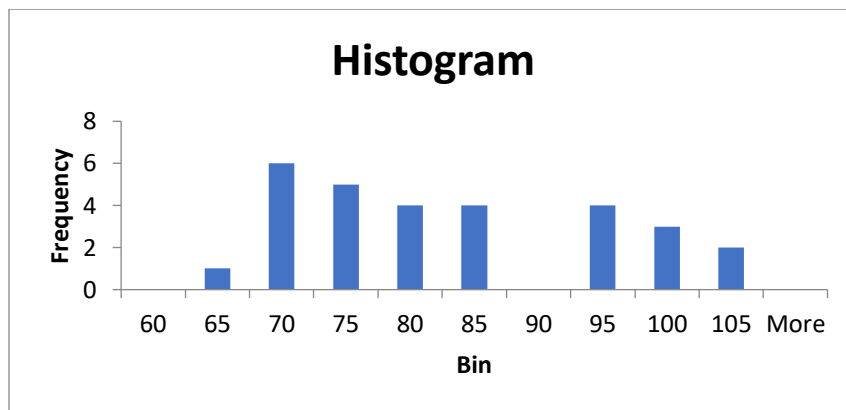


Assignment 1 – Web Api Data (MS Excel and Flourish) and Data Analysis in MS Excel [total 20 pts]

1. Given the following data: [Please submit your MS Excel file]

68.83783784, 101.3703704, 72.31818182, 94.5, 67.92, 74.18181818, 69.63636364, 84.66666667, 91.91666667, 75.08333333, 95.62962963, 65.16, 78.83333333, 65.86956522, 98.54411765, 73.48, 83.69230769, 64.6, 82, 70.08333333, 93.17391304, 76.38461538, 72.75862069, 84.95833333, 98.5, 78.12, 66.81818182, 90.44444444, 103.16

- a. Please discretize the data using 5 categories using the vlookup function (please show your lookup array and how you came to the bin sizes) [4pts]
- b. Please create a Histogram using bin size of 5. Your result should look like this: [3pts]



- c. Please provide Summary statistics for the data. Your result should look like this: [3pts]

Summary Stats	
Mean	80.780746
Standard Error	2.258465795
Median	78.12
Mode	#N/A
Standard Deviation	12.16221052
Sample Variance	147.9193647
Kurtosis	-1.189402217
Skewness	0.398458223
Range	38.56
Minimum	64.6
Maximum	103.16
Sum	2342.641634
Count	29

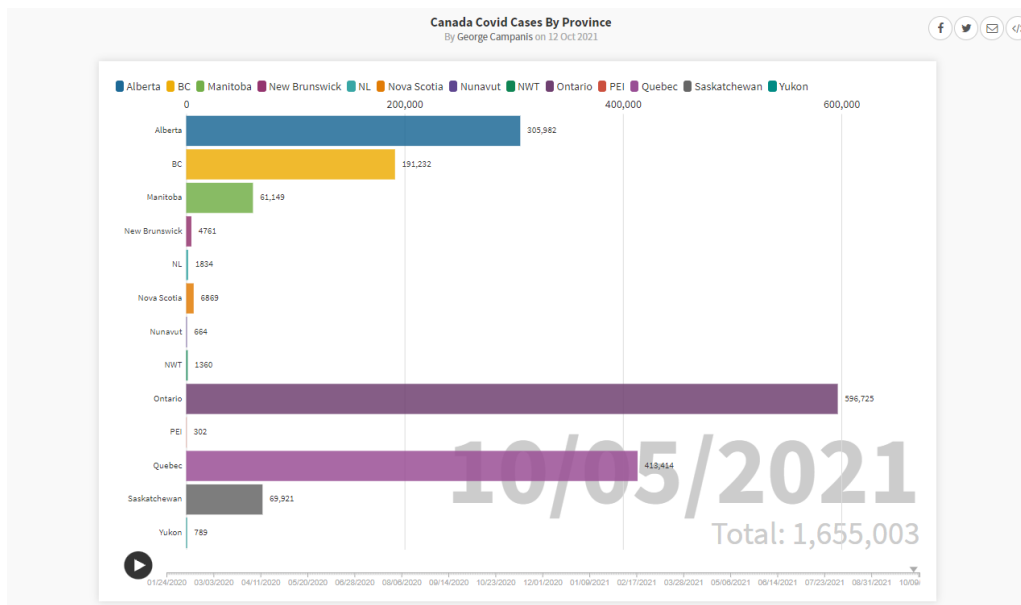
Why is the Mode = #N/A? [1pt]

- Using the following web api: <https://opencovid.ca/api/>, import the vaccine completion data (i.e., 2nd doses, cvaccine) for all Canadian Provinces into MS Excel e.g. [4pts]

cumulative_cvaccine	cvaccine	date_vaccine_completed	province
0	0	12-01-2021	Alberta
0	0	13-01-2021	Alberta
0	0	14-01-2021	Alberta
0	0	15-01-2021	Alberta
0	0	16-01-2021	Alberta
0	0	17-01-2021	Alberta
0	0	18-01-2021	Alberta
0	0	19-01-2021	Alberta
0	0	20-01-2021	Alberta
7003	7003	21-01-2021	Alberta
7272	269	22-01-2021	Alberta
7272	0	23-01-2021	Alberta
7272	0	24-01-2021	Alberta

Excerpt only.

- Create a Flourish chart using the cvaccine cumulative data that uses the “Bar Chart Race” chart. Your result should look similar to the following chart - only, it should use the cvaccine data instead of the cases data: [5pts]



<https://public.flourish.studio/visualisation/7513096/>

Please submit the following in BrightSpace by midnight Tues, 19th October:

- MS Excel file (histo.xlsx) containing: vlookup discretization/categorization, histogram
- MS Excel file (vaccine.xlsx) containing cvaccine web api data, pivot table
- Link to your flourish visualization.