

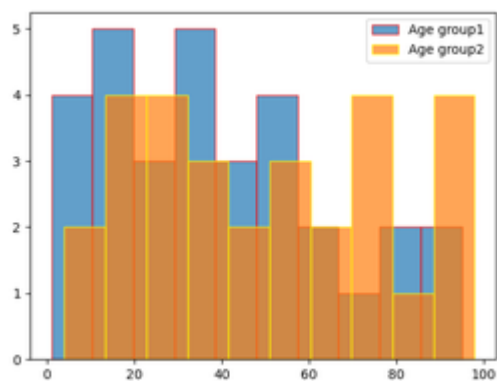
Machine Learning Practical

Matplotlib: Assignment II

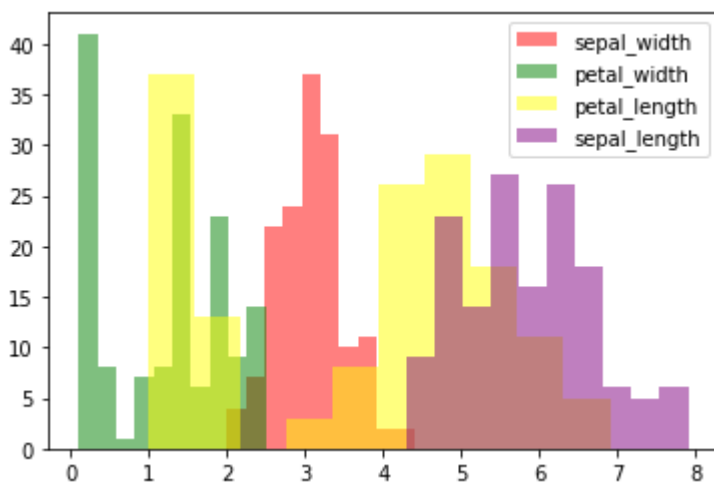
Q1. Given two age groups arrays. Plot corresponding histograms on the same plot. Give proper labels, legends, edge color and alpha values as shown in the figure. Histograms should be plotted with 10 bins. Redo the plotting with 14 bins.

age_g1 = [1, 3, 5, 10, 15, 17, 18, 16, 19, 21, 23, 28, 30, 31, 33, 38, 32, 40, 45, 43, 49, 55, 53, 63, 66, 85, 80, 57, 75, 93, 95]

age_g2 = [6, 4, 15, 17, 19, 21, 28, 23, 31, 36, 39, 32, 50, 56, 59, 74, 79, 34, 98, 97, 95, 67, 69, 92, 45, 55, 77, 76, 85]



Q2. Load the iris dataset and plot four overlapping histograms with customized colors as shown in the figure.

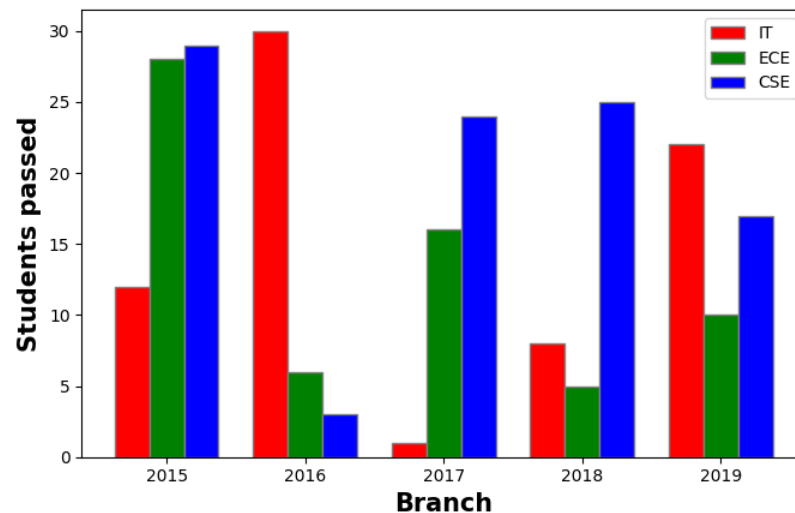


Q3. Consider the following three arrays depicting the number of students in IT, ECE and CSE from years 2015-2019. Draw a bar plot that shows the number of students passed in the engineering branch

IT = [12, 30, 1, 8, 22]

ECE = [28, 6, 16, 5, 10]

CSE = [29, 3, 24, 25, 17]



Q4. Write a Python program to create a stacked bar plot with error bars. Note: Use bottom to stack the women's bars on top of the men's bars.

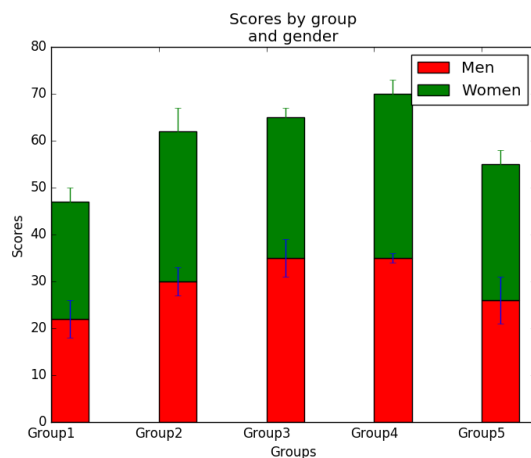
Sample Data:

Means (men) = (22, 30, 35, 35, 26)

Means (women) = (25, 32, 30, 35, 29)

Men Standard deviation = (4, 3, 4, 1, 5)

Women Standard deviation = (3, 5, 2, 3, 3)



Q5. Given the following data, plot a horizontal stacked bar chart as shown in the figure.

year = [2014, 2015, 2016, 2017, 2018, 2019]

issues_addressed = [10, 14, 0, 10, 15, 15]

issues_pending = [5, 10, 50, 2, 0, 10]

