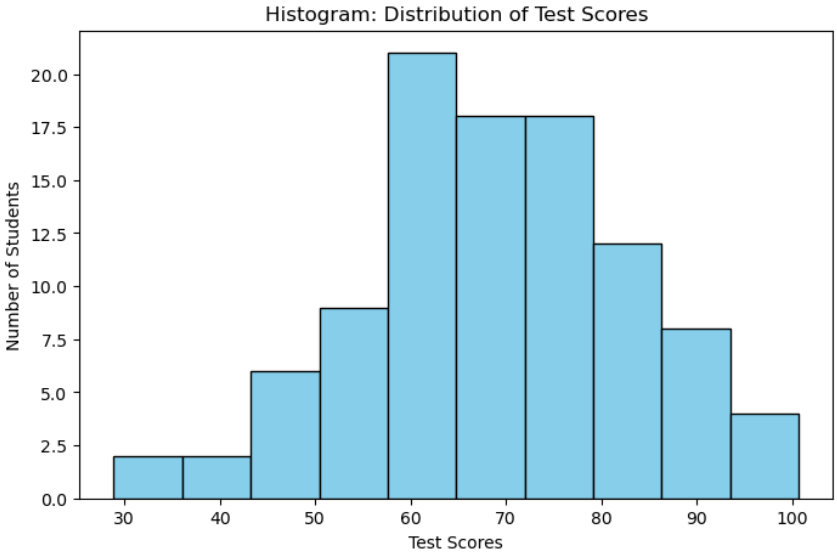
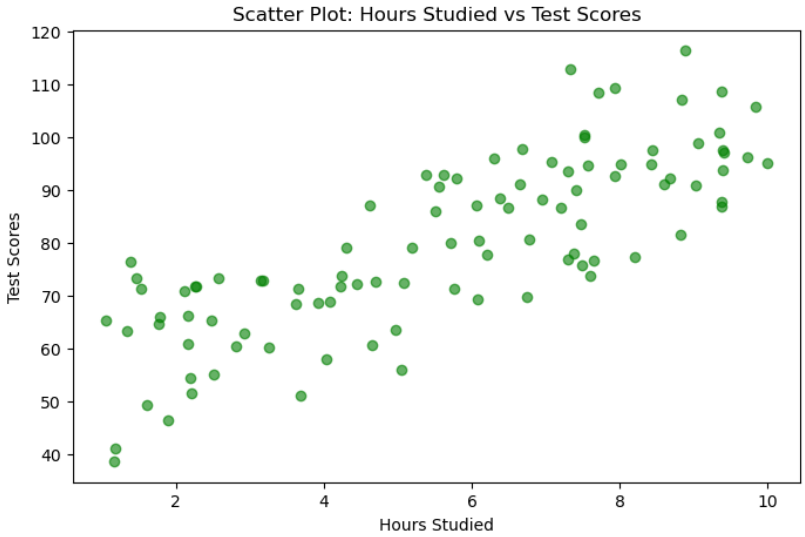
Class Activity: 11 September 2024

Histogram



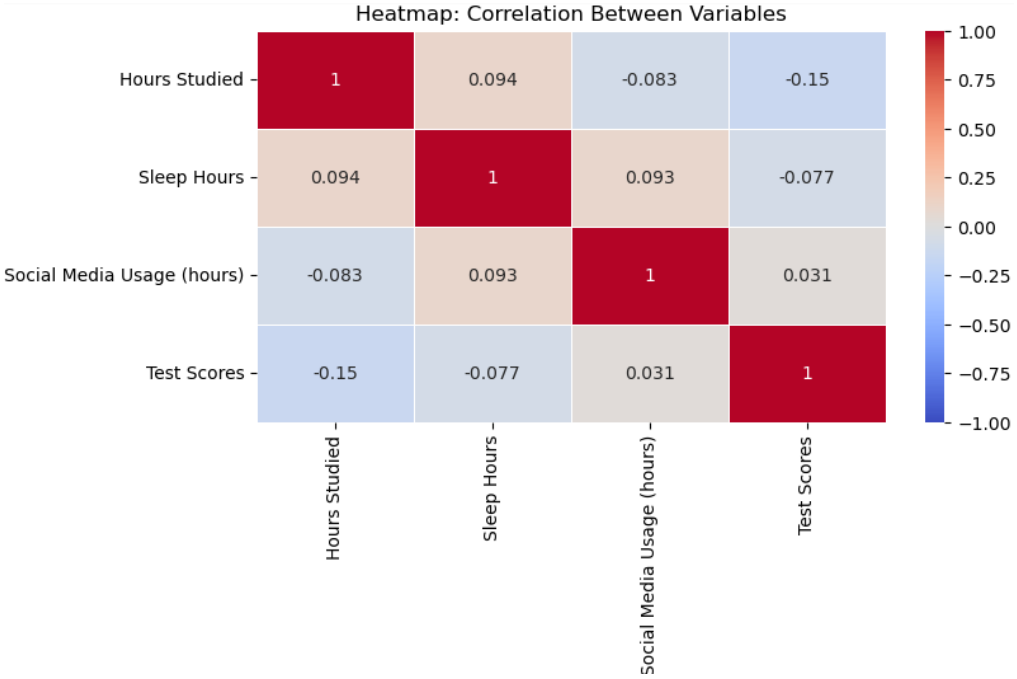
1. What does the peak of the histogram represent?
2. Is the distribution skewed? If yes, is it positively or negatively skewed, and what does this suggest about student performance?
3. What percentage of students scored above 75?
4. Are there any visible outliers in the distribution?
5. Based on the histogram, would you say that the test was easy, difficult, or moderate? Why

Scatter Plot



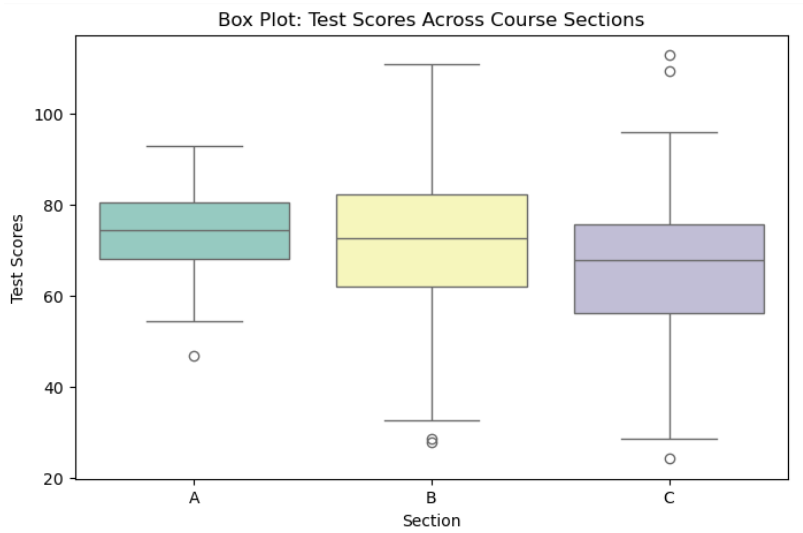
1. What kind of relationship do you observe between the two variables?
2. Are there any outliers in the data? If yes, what do they suggest?
3. Does studying more hours seem to guarantee a higher test score? Explain.
4. Are there any clusters of data points? What could these clusters represent?

Heatmap



1. Which variable is most strongly correlated with test scores?
2. Is there a negative correlation between any two variables? What does it mean?
3. How could social media usage affect test scores based on the heatmap?
4. Is there any pair of variables that show no correlation?
5. Based on the heatmap, which two variables would you focus on to predict test scores?

Box Plot



1. Which section has the highest median test score?
2. Are there any outliers in any of the sections? If yes, which section(s)? What do these outliers indicate about the performance of some students?
3. Which section shows the most variability in scores? How can you tell?
4. What can you infer about the distribution of test scores for Section B?
5. Looking at the whiskers of the box plot, which section has the least number of students scoring far from the median?