

ADVANCED DATA VISUALIZATION EXPERIMENT 5

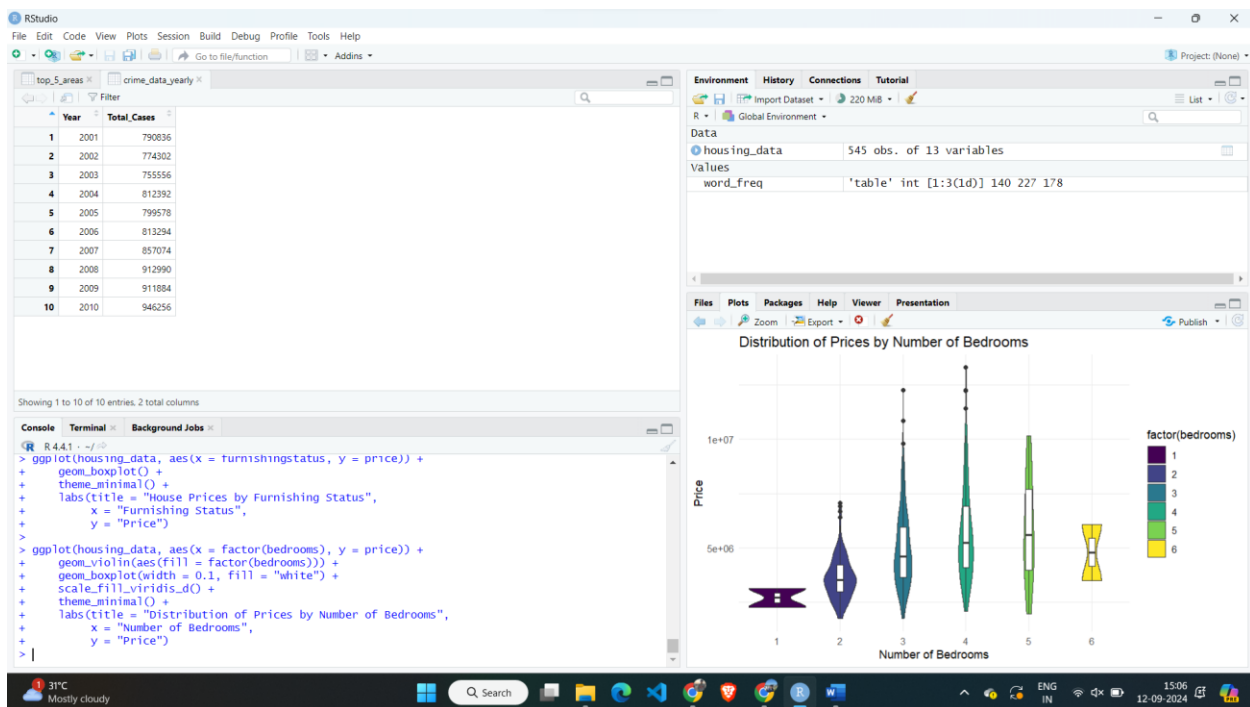
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ROLL NO: 2021700010

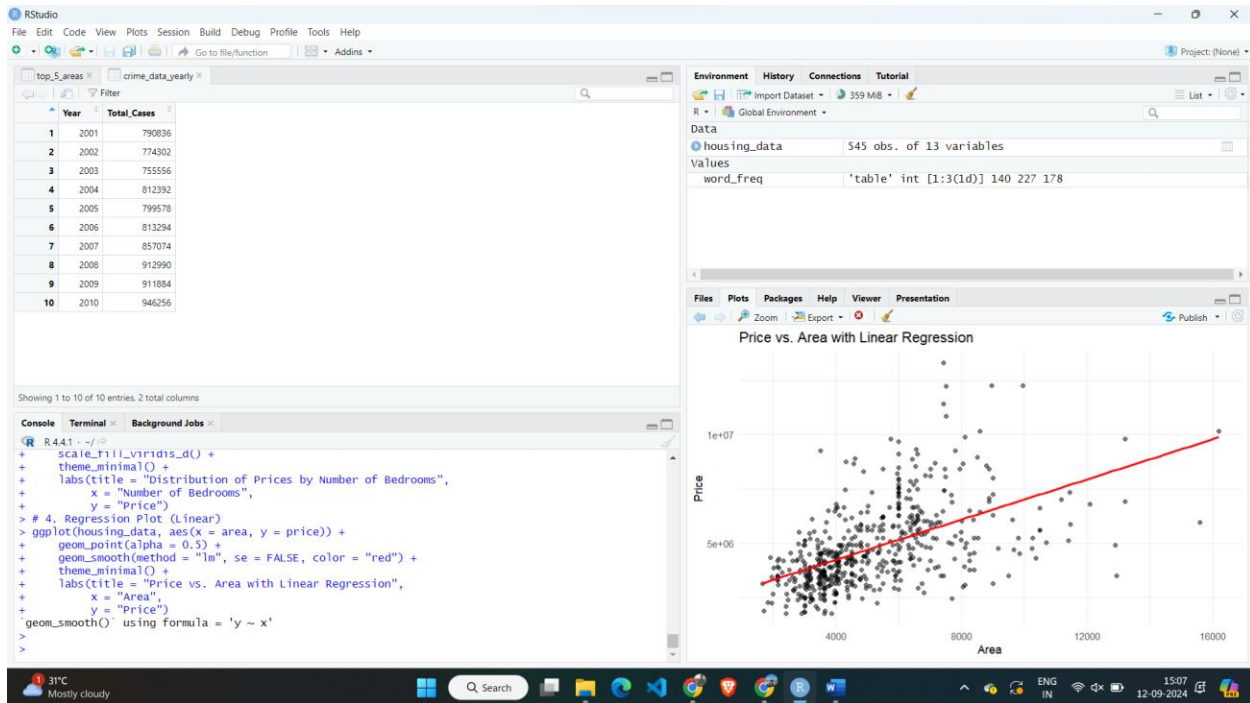
BATCH: L

AIM: Create advanced charts using R programming language on the dataset - Housing data

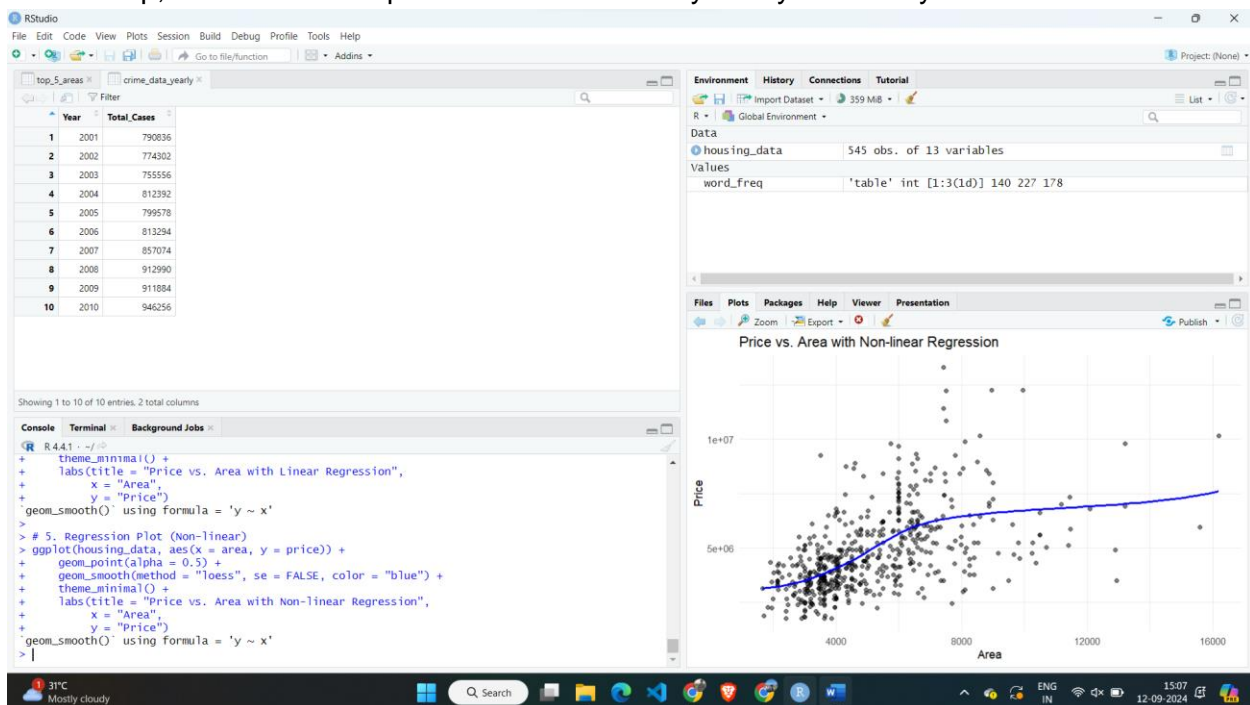
- Advanced - Word chart, Box and whisker plot, Violin plot, Regression plot (linear and nonlinear), 3D chart, Jitter
- Write observations from each chart



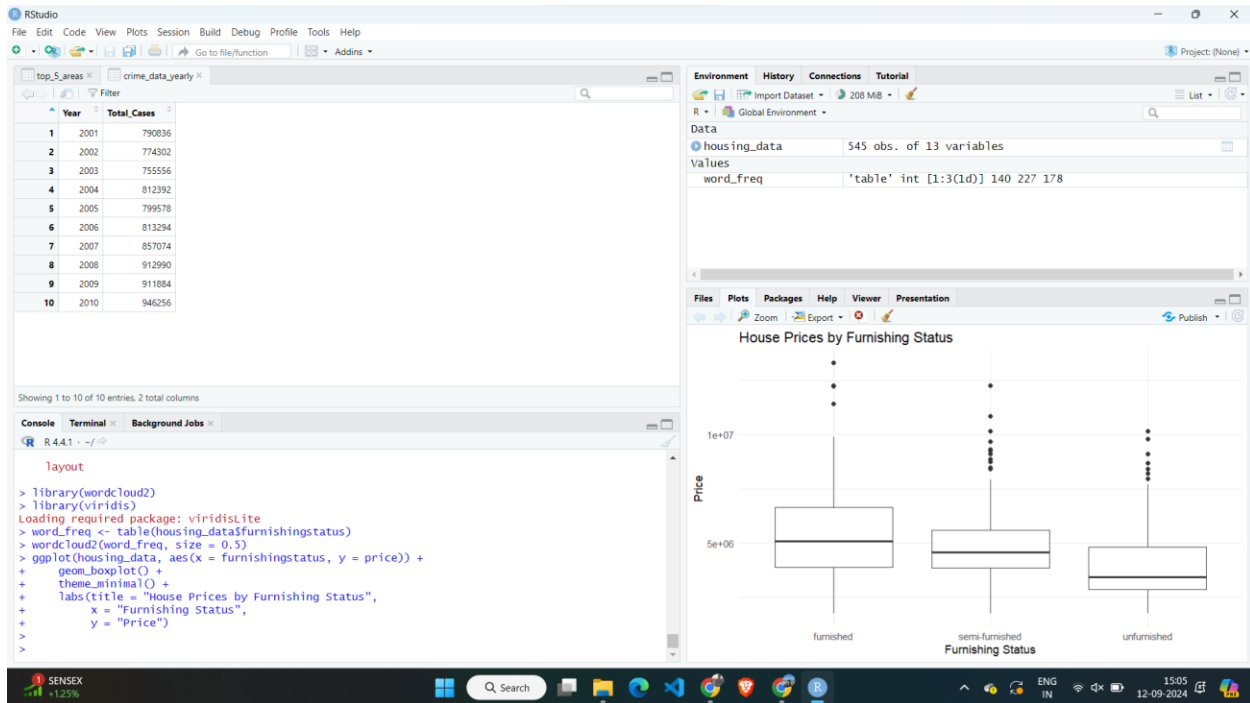
This is a violin plot of prices distribution by number of bedrooms. Each violin represents price distribution of houses with a specific number of bedrooms. 1 to 6. Width of the violin indicates frequency of houses at different price points.



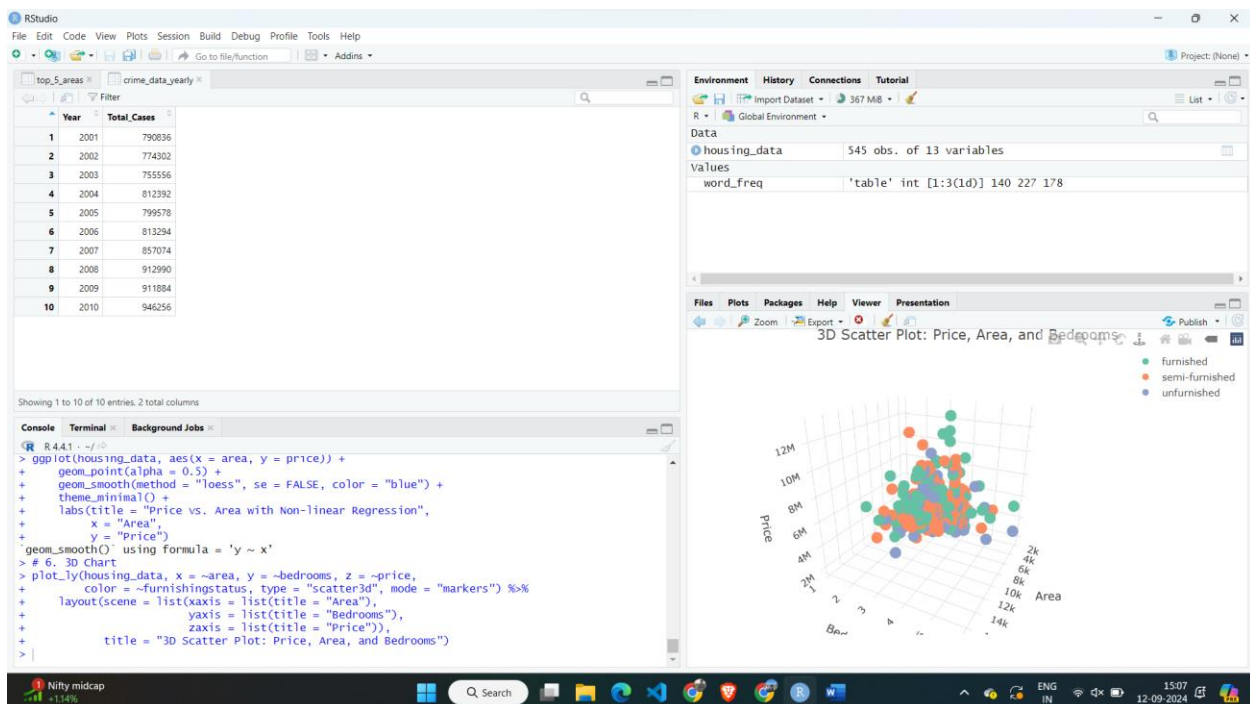
Linear regression of price vs area, this shows a positive relationship between price and area, with price increasing as area increases. The linear model gives a generic idea about the relationship, this is rather simple and does not convey it very accurately.



Shows non linear regression plot of price vs area. There is positive relationship between house area and price, with prices increasing with area. The rate of price increasing slows down with larger area, this is portrayed by the non linear regression.



Box and whisker plot representing house prices for each furnishing status. The horizontal line within the box denotes the median, the height of the box gives us the inter quartile range (IQR), and the wicks show us the extremes.



Provides multivariate analysis and how 3 variables relate with each other across the dataset



Jitter plot shows the price vs Number of bedrooms, across the 3 categories of furnishing status – furnished, semi furnished, unfurnished.