Project 2

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Outline

methodology

The methods used is.:chatGPT, tutorials, code and analysis afterwards

Task 2

average size of NEO per day, proportion of potential dangerous NEO's, closest approach,

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Mean NEO size:  208.35781432387117
Median NEO size:  76.9201245487
Mode NEO size:  ModeResult(mode=array([47.21064988]), count=array([52]))
Standard deviation of NEO size:  408.8787261666672
Mean size of hazardous NEOs:  608.8294786782687
Mean size of non-hazardous NEOs:  180.88824836491438
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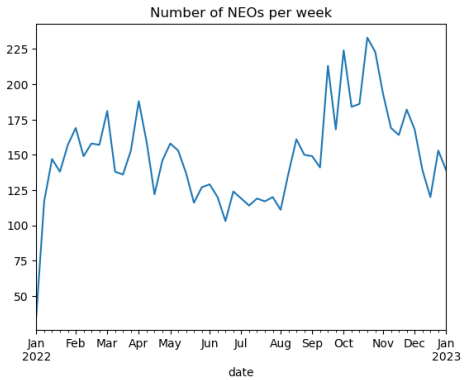
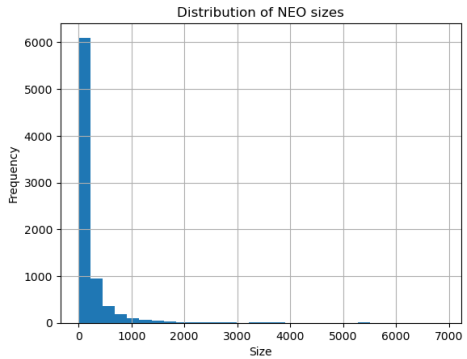
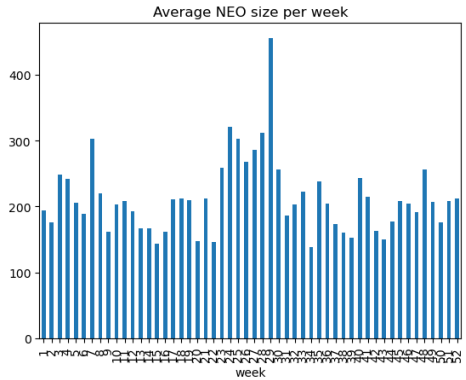
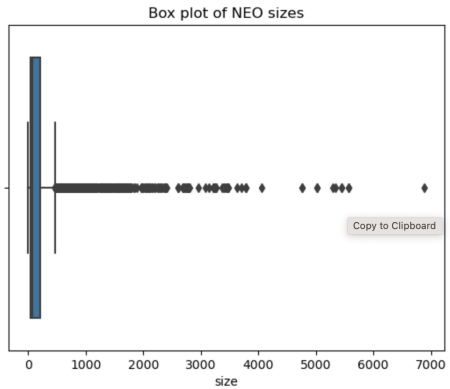
Task 3

first plot.: date on x-axis and number of NEO's on y-axis.
second plot.: distribution of NEO sizes: size on x-axis and frequency on y-axis.
third plot.: week on x-axis and average NEO size on y-axis.
fourth plot.:boxplot, size on the x-axis



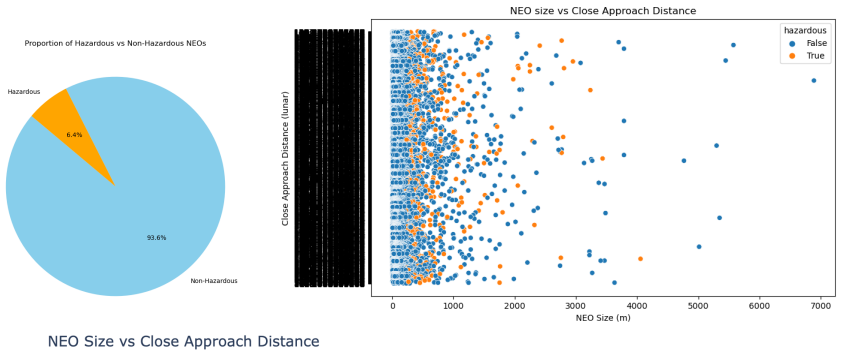




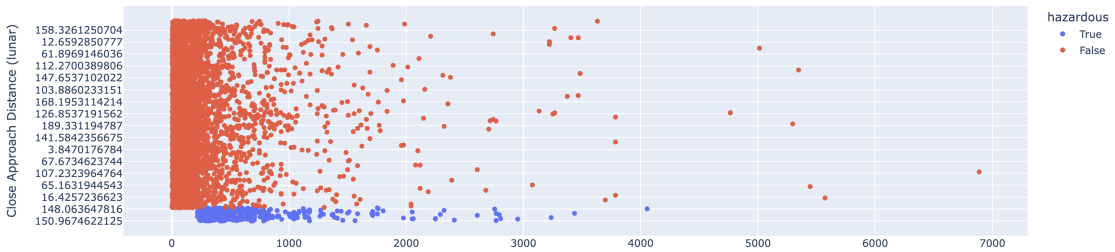


Task 4

Plot 1.: most of the NEO's are non-hazardous, but still potential for hazardous NEO's close to earth.
Plot 2.: Larger NEOs correlate with a higher proportion of dangerous NEOs
Plot 3.: X-axis: Represents the size of NEOs. Y-axis: Indicates the close distance to the Moon measured in kilometers. blue dots are NEOs that are considered to be high-risk due to their size and distance.



NEO Size vs Close Approach Distance



Task 5

Part A: Variation of NEO sizes over time. Monitoring NEO's.
Part B: Line chart, bar chart and box plot. Recommendations and predictions. Relevant scientific article.

Conclusion

Overview over NEO's, size, distance, non-hazardous and hazardous.
Most NEO's non-hazardous, common occurrence