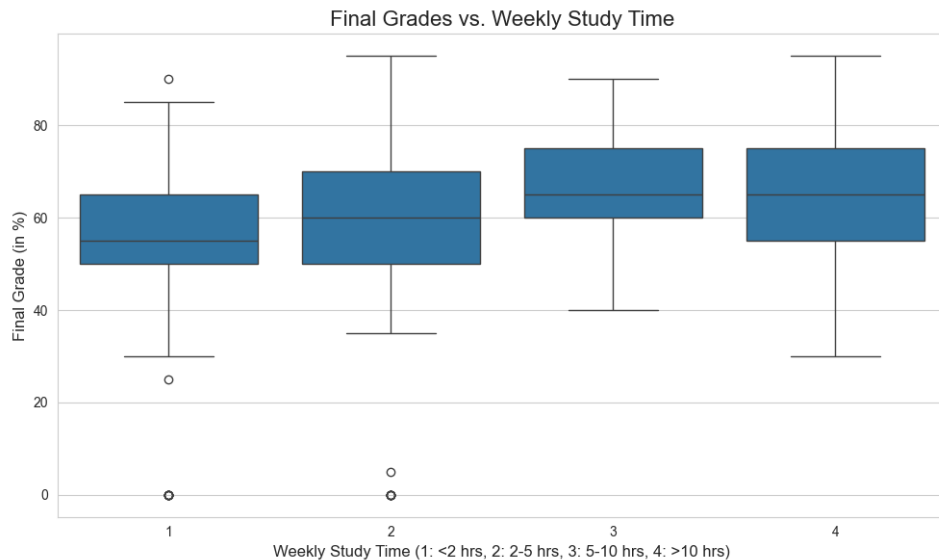


■ Student Performance Analysis Report

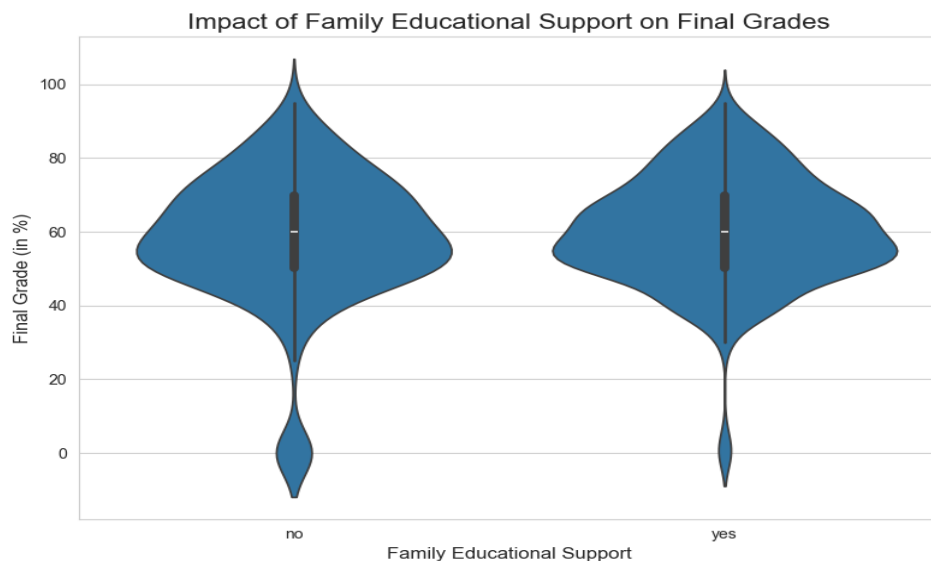
This report explores the relationship between student behavior and academic performance using the UCI Student Performance dataset. I analyzed how weekly study time, family support, and social activity impact final grades (converted to percentage). The data was visualized using Seaborn and Matplotlib in Python.

1■■ Final Grades vs Weekly Study Time



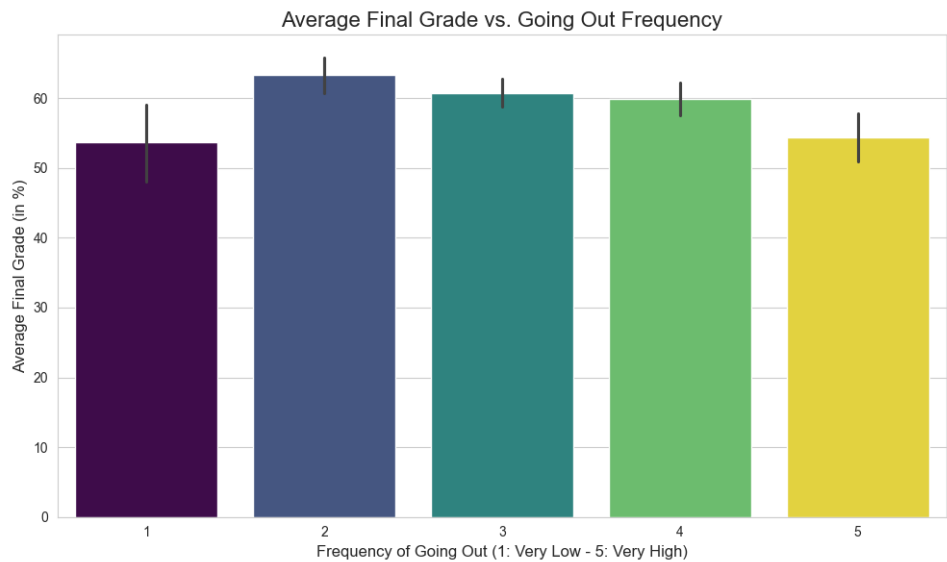
This box plot shows how study time correlates with final grades. Students who study more tend to score higher, with noticeable improvement in the 3rd and 4th study categories (5–10 hours and more than 10 hours weekly).

2■■ Impact of Family Educational Support on Grades



This violin plot highlights that students who receive family educational support generally perform better. The grade distribution is higher for students who answered 'yes' to receiving family support.

3 Social Activity vs Final Grades



This bar plot suggests that students who go out more frequently tend to score slightly lower on average. There's a visible decline in grades from low to high going-out frequencies.

Conclusion

Academic performance is strongly influenced by factors like study time, parental support, and social activity. This kind of analysis can help schools and educators target support strategies for different student behaviors.