Summary/Synopsis: I set out to investigate the impact of minutes played on NBA player performance, using 'Minutes Played' as the primary independent variable and assessing metrics such as field goals made, field goals attempted, field goal percentage, and points scored. Through Python-based exploratory data analysis (EDA), including cumulative distribution functions, probability mass functions, scatterplots, and Pearson correlations, I gained deeper insights into variable relationships. The regression analysis concluded with an R-squared value of 0.731, indicating that 73.1% of the variability in points scored is explained by minutes played. This result confirmed my initial assumptions. While the analysis was comprehensive, I discovered a need to better understand analytical distribution modeling for future projects.