

**IS 2105 Business Statistics**  
**Group Project Proposal 2023**

<b>Group Number</b>	13
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<b>Title of the project</b>	Analysis of the Factors Affecting the Variation of Sales Price of Cars in USA
<b>Introduction</b>	<p>The objective of this project is to perform a comprehensive descriptive analysis utilising a dataset obtained from car auctions. The resulting analysis report aims to extract valuable insights regarding the auctioned vehicles. Sourced from AUCTION EXPORT.com.</p> <p>The dataset comprises 28 different vehicle brands and encompasses 12 key variables. Through this analysis, it aims to uncover correlations, advantages, and drawbacks, as well as to identify often-overlooked trends within this diverse car data. We hope to draw informed conclusions, recognizing the pivotal role statistical data analysis plays in decision-making processes. The project also seeks to determine whether any significant variables exist that contribute to relationships with other variables.</p>
<b>Data</b>	The dataset consists of 12 variables containing both qualitative and quantitative variables. The individuals of this dataset are Vehicles and this comprehensive dataset includes qualitative variables such as brand, model, year, title_status, colour, vehicle identification number, lot number, and state as well as quantitative variables like price, mileage, and condition.

<b>Proposed Analysis Plan and Methodology</b>	<ol style="list-style-type: none"> <li>1. We will be using graphical representations (bar charts, pie charts, histograms) and numerical representations to analyse qualitative and quantitative variables.</li> <li>2. Univariate analysis will be done for all variables using graphical methods.</li> <li>3. Bivariate analysis will be done for the quantitative variables using scatter plots.</li> <li>4. Five number summary is obtained for the quantitative variables and box plots are used to get insights from them.</li> <li>5. A summary of the results of our analysis will be presented.</li> <li>6. Recommendations to overcome the findings from the analysis will be mentioned at the end.</li> </ol>
<b>References</b>	<p>[Online]</p> <p>Available at:  <a href="https://www.kaggle.com/datasets/doaaalsenani/usa-cers-dataset">https://www.kaggle.com/datasets/doaaalsenani/usa-cers-dataset</a> </p> <p>[Accessed on: 24-08-2023]</p>