# README for EDA Notebook

# Exploratory Data Analysis (EDA)  
  
This repository contains a Jupyter Notebook titled \*\*"EDA\_2.ipynb"\*\*, which performs an in-depth exploratory data analysis on a dataset. The notebook aims to uncover patterns, relationships, and insights through statistical methods and data visualizations.  
  
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## Features of the Notebook  
  
- \*\*Data Exploration\*\*:  
 - Loading and previewing the dataset.  
 - Checking for missing values and data types.  
 - Understanding the dataset's structure and summary statistics.  
  
- \*\*Data Cleaning\*\*:  
 - Handling missing values.  
 - Renaming or encoding columns for consistency.  
  
- \*\*Visualization\*\*:  
 - Generating histograms, boxplots, and scatter plots to understand distributions and relationships.  
 - Visualizing categorical and numerical data.  
  
- \*\*Statistical Analysis\*\*:  
 - Computing correlations and other key metrics.  
 - Using visualizations to interpret statistical relationships.  
  
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## Getting Started  
  
### Prerequisites  
Ensure you have the following installed:  
- Python 3.8 or above  
- Jupyter Notebook or Jupyter Lab  
- Required Python libraries:  
 - `pandas`  
 - `numpy`  
 - `matplotlib`  
 - `seaborn`  
  
### How to Run  
1. Clone the repository:  
 ```bash  
 git clone <repository-link>  
 cd <repository-folder>  
 ```  
2. Open the notebook:  
 ```bash  
 jupyter notebook "EDA\_2.ipynb"  
 ```  
3. Run the cells sequentially to explore the data.  
  
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## Results  
  
- Visual and statistical insights into the dataset's structure and features.  
- Identification of trends and outliers.  
- A cleaned dataset ready for further analysis or modeling.  
  
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## Acknowledgements  
  
- Created by \*\*Eshan Pandey\*\* as part of an EDA project.  
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## License  
  
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