User Manual for C964 Capstone - Data Analysis Application

Welcome to the user manual for the Data Analysis Application. This application helps you analyze data stored in CSV files, providing various charts and metrics for better data understanding.

* System Requirements:
* Windows 10 machine
* Python 3.6 or later installed
* Required libraries: tkinter, pandas, plotly, scikit-learn, and webbrowser

Installation:

* Download and install Python 3.6 or later from the official Python website (<https://www.python.org/downloads/>).
* (Optional) Download PyCharm Community Edition for a consistent development environment (<https://www.jetbrains.com/edu-products/download/other-PCE.html>).
* If Open the command prompt and type the following command to install the required libraries:
  + pip install tkinter
  + pip install pandas
  + pip install plotly
  + pip install scikit-learn

Using the Data Analysis Application:

* Open the application using Python or PyCharm.
* The Data Analysis window will appear. Click the "Browse" button and select a CSV file (e.g., "diabetes\_data.csv") for analysis.
* The selected file's path will be displayed in the text field next to the "Browse" button.
* Click the "Analyze" button to generate charts and metrics for the selected file.
* A pie chart of the target variable and a scatter matrix of all features will be displayed in separate browser tabs.
* Linear regression plots and histograms for all features will also appear in separate browser tabs.
* The "MSE" and "R2 Score" values for the linear regression model will be displayed below the "Analyze" button.
* We hope this user manual helps you effectively use the Data Analysis Application. If you have any questions or issues, please feel free to contact us.

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C:\<some\_path>\<some\_other\_path\PycharmProjects\C964\_Capstone-Diabetes-ML-Predicator\_031923\diabetes\_data.csv

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Chart, pie chart

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Diagram, application

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Chart

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