

Questions Machine learning Lab Exam

Q1-Write a Python code snippet to load a CSV file named "data.csv" into a pandas DataFrame. Display the first five and last five rows of the DataFrame to explore the data's head and tail.

Q2-Generate a correlation matrix for the numerical columns in the DataFrame and visualize this matrix using a heatmap. Provide a Python code snippet for this analysis.

Q3-Use seaborn to plot a pairplot for the DataFrame loaded from "data.csv" to visualize the relationships between pairs of features. Include the Python code snippet to generate this plot.

Q4-Write a Python code snippet to check for class imbalance in the "Final_grade" column of the DataFrame. Plot a bar graph to show the distribution of the classes.

Q5-Write a Python code snippet to perform label encoding on the "Final_grade" column of the DataFrame. Use the label encoding method from scikit-learn to convert categorical labels into numerical format.