

Coding Section - (Submit one .ipynb file and use markdown for any explanation)

1. You are provided with the "glass.csv" dataset, which contains information about various types of glass. Each row represents a different type of glass, and the columns represent different features of the glass samples. The last column denotes the type of glass, which is the target variable.

Task Description:

A colab notebook "knn_classifier_base_model.ipynb" is given to you which contains the base KNN model. Your objectives are:

- a. Tune the model to achieve an accuracy above 70%. (Please make sure the model is not overfit)
- b. For each step in the model tuning process, provide detailed explanations using Markdown to justify your decisions. (preprocessing and tuning)
- c. Plot a cross validation accuracy for 10 values of k and provide inference.

Submission Requirements: Submit a colab Notebook
"knn_classifier_tuned_model_<your_name>.ipynb"

Submission Guidelines: Utilize Markdown to provide explanations and reasoning for each step in the colab Notebook.