

# Report: Ass3 , Q1

Report Describe's Result's of Training the Multinomial Logistic Regression Model with changing Hyperparameter's: Epoch's and learning Rate, and noting the Accuracy.

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## ▼ Overview of the Problem:

- Had to implement Multinomial Logistic Regression from scratch, which is used for classification, it is preferred because of its non-linearity and flexibility.
- We are training and testing the model on a Wine dataset.
- Link to W&B run: <https://wandb.ai/aryamarda/SAMI-Ass3-1/runs/q3jv7uv5?workspace=user-aryamarda000>

## ▼ Hyperparameter Tuning and Evaluation:

- Learning\_rates = [0.001, 0.01, 0.1]
- Epochs = [100, 500, 1000]

## ▼ Graphs :

1. Epochs
2. Learning Rate
3. Accuracy



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<https://wandb.ai/aryamarda/SAMI-Ass3-1/reports/Report-Ass3-Q1--Vmlldzo1NzQxMjk5>