

 Please do not use ChatGPT to complete these tasks. 

Please read every question carefully if you have any type of problem please email:

aesrnd03@gmail.com

Task 1: Load the data

1. Do EDA analysis and make a report of the data analysis.
2. Apply t-SNE algorithms and generate a graph.
3. Apply Machine Learning algorithms for predictive analysis.

Dataset Description:

The training set.

- Id Unique identifier for each observation.
- AB-GL Fifty-six anonymized health characteristics. All are numeric except for EJ, which is categorical.
- Class A binary target: 1 indicates the subject has been diagnosed with one of the three conditions, 0 indicates they have not.

[We have test data we will test your algorithms on your code so please comment.]

Task 2: Multiclass classification

1. Load the data (you can apply PyTorch or TensorFlow framework we prefer to use your own custom data loader)
2. Make a custom CNN model for classification.
3. Use transfer learning for classification
4. Make a comparison of your model and the transfer learning model.
5. [Dataset link: https://www.kaggle.com/datasets/yousefmohamed20/oxford-102-flower-dataset](https://www.kaggle.com/datasets/yousefmohamed20/oxford-102-flower-dataset)

Task 3: Apply Feedforward and backward operation:

Assume that you have two inputs node $x_1 = .5$, $x_2 = .6$, $w_1 = 1$, $w_2 = 1$, and activation function sigmoid apply feedforward and backward operation of a neural network.

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