School of Computer Science and Engineering, VIT Chennai.

BCSE209P Machine Learning

Lab-3 Logistic Regression

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Due Date : 13/01/2024

Submit your python code (Jupyter notebook): with output for all the questions.

Q1. A company wants to predict whether a customer will buy a product (1) or not (0) based on the number of promotional emails sent. Design a binary classifier (write your own code) for the above problem. Use Customer_buy.csv for training your classifier.

- Print all the parameter values of your classifier model after training for 2 epochs.
- Use the trained model to predict whether a customer will buy a product if he receives 5 promotional emails.

Q2. Use Scikit Library function `LogisticRegression` on the same dataset and compare the results with your implementation.

Q3. Also use logistic regression model to predict the risk of having heart disease using the given dataset (heart.csv). (Use Scikit library function)

You need to show the complete pre-processing steps (identifying null or missing values, normalization, etc.). Print accuracy of the model prediction.