Assignment-4
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Answer the following questions based on your observations
1. Use logistic regression to find decision boundary For the given database. Set your learning rate to 0.1. What is the cost function value and learning parameter value after convergence?
2. Plot cost function v/s iteration graph for the model trained
in question 1. Plot the line as shown here - https://pythonguides.com/matplotlib-plot-a-line/#Matplotlib_plot_a_line_chart
Do not use scatter plots for this.
3. Plot the given dataset on a graph, use different colours for
different classes and also show the decision boundary you obtained in question 1. Do not use scatter plot.
4. Train your model with a learning rate of 0.1 and 5. Plot the
cost-function v/s iteration curve for both learning rates onthe same graph. For this task, only train your model for 100 iterations.
5. Find the confusion matrix for your training dataset. Using the
confusion matrix to calculate the accuracy, precision, recall, F1-score.

Code for all the questions are provided in the github link.
https://github.com/KrishNatrium/AI_Lab4