**Lab Assignment 1**

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**Introduction:**

We are now going to discuss about Logistic regression on Iris dataset and predict the accuracy of model on dataset.

**Definition:**

Logistic regression is a predictive analysis, which used to predict variables where one is dependent, which is binary and which can be categorized. Logistic regression helps in defining the relationship between independent variables and a dependent variable.

**Approach:**

In this process of applying logistic regression on dataset, we initially load data and define X\_data, Y\_data and x, y placeholders to fit the data.

Also we initialize weight and bias variables to zero and we apply the following regression formula on dataset

Functions are defined to calculate loss and accuracy, where accuracy are calculated based on predicted values and output from the original dataset/

We initialize the session and run it, we then define the function to minimize the loss for every epoch in the model and finally we predict the results of dependent variable.

Finally, we draw a graph with data, results of our model.

**Parameters:**

Learning rate: 0.01,

No.of epochs: 100.

Weight W = tf.Variable(tf.zeros([2,1]))

Bias b = tf.Variable([0.0])

**Conclusion:**

From the above task, we conclude that given dataset fits the model with 89.89% accuracy in total for 100 epochs.

Weight W = ([-3.10890937, 4.38813686], dtype=float32)

Bias b = -1.994434.