Learners' Space: Python for Data Science Assignment_Week 2 & 3

1. Upload the Random Forest Classifier implementation on the Iris dataset. (the video had been uploaded in the course material: Implementation of Random Forest Classifier)
2. Implement a Logistic Regression model in Python without using the inbuilt libraries of scikit-learn. You can get an overview of the topics and the formulas included in Logistic Regression here. This class should be such that it should work for any given data frame. Make a model only for binary classification and use Pandas, NumPy, Matplotlib and seaborn libraries only.
   After making the model, implement it on the dataset here on Heart Disease and try to predict the output.
   Also keep the following numPy functions in mind:
   1. np.log()
   2. np.exp()
   3. np.dot() #dot product

   You may then use the following code to test the accuracy of your model or write code for doing so yourself.

```
def accuracy(X, Y, W, B):
    #X = testing data
    #Y = target
    #W = weight
    #B = bias

    Z = np.dot(W.T, X) + B
    A = sigmoid(Z)

    A = A > 0.5

    A = np.array(A, dtype = 'int64')

    acc = (1 - np.sum(np.absolute(A - Y))/Y.shape[1])*100

    print("Accuracy of the model is : ", round(acc, 2), "%")
accuracy(X_test, Y_test, W, B)
```