Lab 6 **Confusion Matrix and Cross validation**

**1.** **Perform the confusion matrix and k fold cross validation on the IRIS dataset, simultaneously plot the confusion matrix figure for normalized and non-normalized data.**

//**plot the confusion matrix figure**

def plot\_confusion\_matrix(predicted\_labels\_list, y\_test\_list):

cnf\_matrix = confusion\_matrix(y\_test\_list, predicted\_labels\_list)

np.set\_printoptions(precision=2)

# Plot non-normalized confusion matrix

plt.figure()

generate\_confusion\_matrix(cnf\_matrix, classes=class\_names, title='Confusion matrix, without normalization')

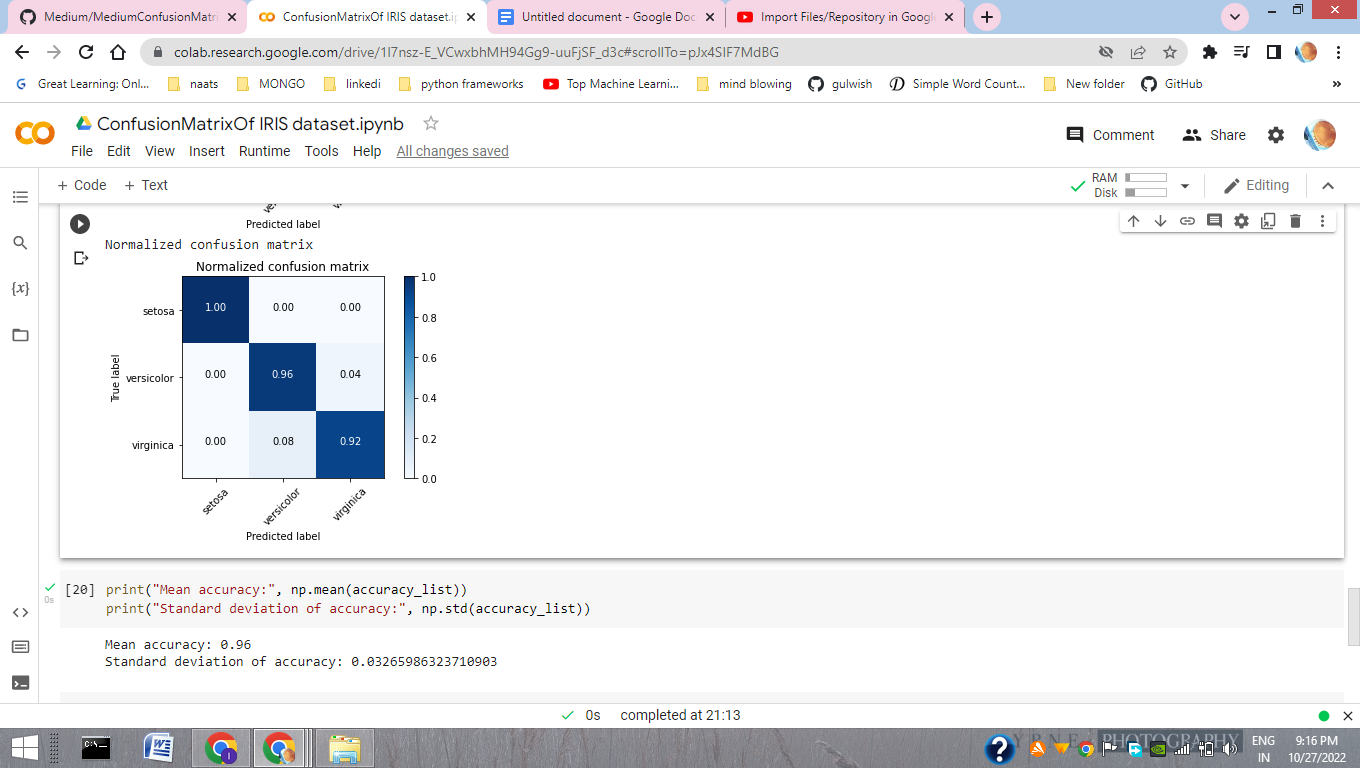
plt.show()

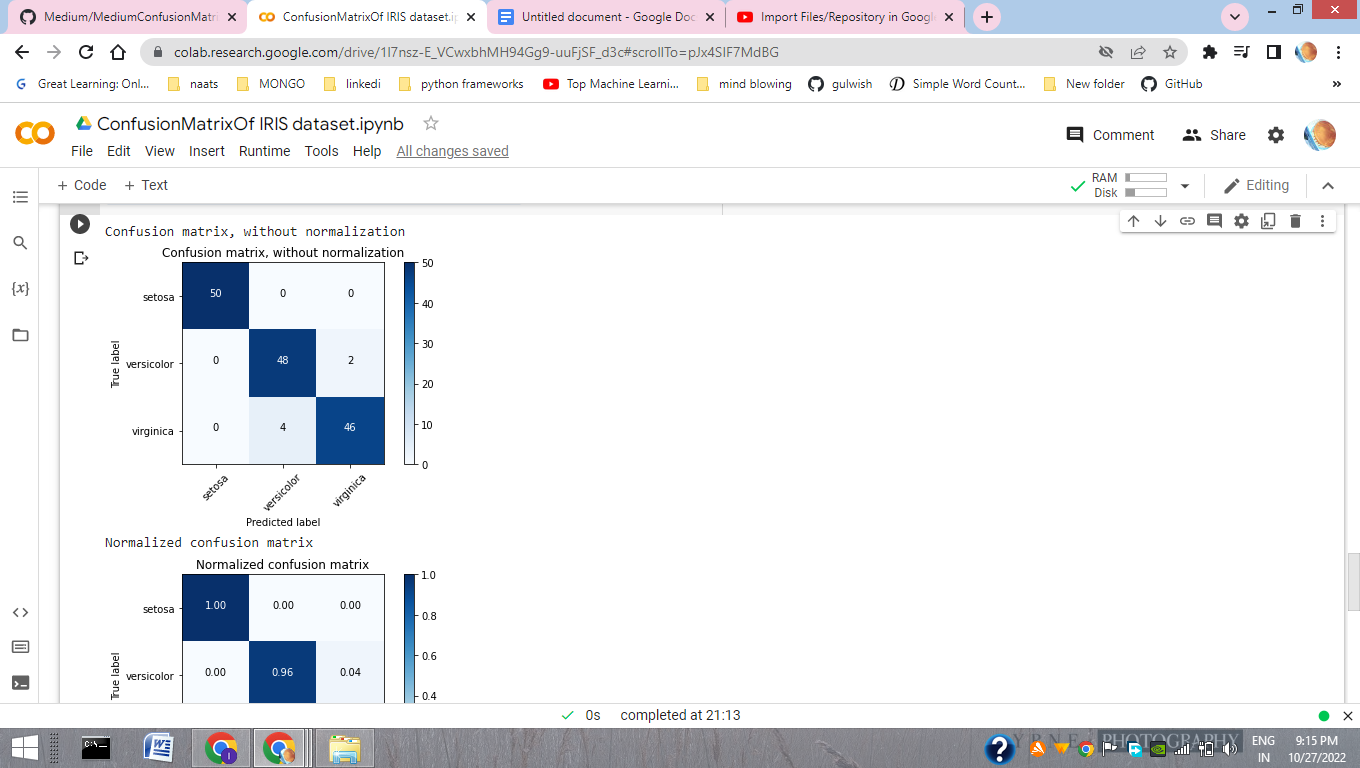
# Plot normalized confusion matrix

plt.figure()

generate\_confusion\_matrix(cnf\_matrix, classes=class\_names, normalize=True, title='Normalized confusion matrix')

plt.show()





**//Perform the confusion matrix and k fold cross validation on the IRIS dataset, using** evaluate\_model defined

#perform

predicted\_target, actual\_target, accuracy\_list = evaluate\_model(data, target)

#plot

plot\_confusion\_matrix(predicted\_target, actual\_target)

