import pandas as pd

import numpy as np

import seaborn as sns

from matplotlib import pyplot as plt

flower = pd.read\_csv('/content/iris.csv')

print(flower)

X = flower.iloc[:, 0:4]

print(X)

y = flower['species']

print(y)

plt.figure(figsize=(25, 7))

sns.countplot(x='sepal\_length', hue='species', data=flower)

plt.show()

# Load libraries

from pandas.plotting import scatter\_matrix

from matplotlib import pyplot

#machine learning models

from sklearn.model\_selection import train\_test\_split

from sklearn.model\_selection import cross\_val\_score

from sklearn.model\_selection import StratifiedKFold

from sklearn.metrics import classification\_report

from sklearn.metrics import confusion\_matrix

from sklearn.metrics import accuracy\_score

#Algorithm

from sklearn.linear\_model import LogisticRegression

from sklearn.tree import DecisionTreeClassifier

from sklearn.neighbors import KNeighborsClassifier

from sklearn.discriminant\_analysis import LinearDiscriminantAnalysis

from sklearn.naive\_bayes import GaussianNB

from sklearn.svm import SVC

LR = LogisticRegression(solver='liblinear', multi\_class = 'ovr')

kfold = StratifiedKFold(n\_splits=10, random\_state=1, shuffle=True)

X\_train, X\_validation, Y\_train, Y\_validation = train\_test\_split(X, y, test\_size=0.20, random\_state=1)

cv\_results = cross\_val\_score(LR, X\_train, Y\_train, cv=kfold, scoring='accuracy')

print('%s: %f (%f)' % (LR, cv\_results.mean(), cv\_results.std()))

model = LR.fit(X\_train, Y\_train)

predictions = LR.predict(X\_validation)

print(predictions)

print(accuracy\_score(Y\_validation, predictions))