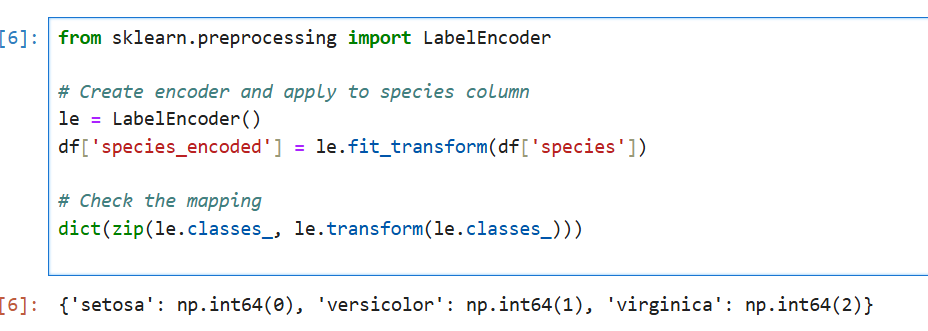
**Model Training with Scikit-Learn**

**Encode the Target Labels**

Output



**Split Data into Features and Target**

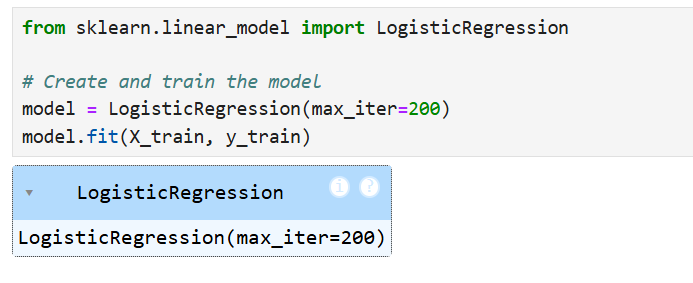
# Features (X) and target (y)

X = df[['sepal\_length', 'sepal\_width', 'petal\_length', 'petal\_width']]

y = df['species\_encoded']

**Train a Classifier (e.g., Logistic Regression)**

from sklearn.linear\_model import LogisticRegression # Create and train the model model = LogisticRegression(max\_iter=200) model.fit(X\_train, y\_train)



**Model Training.”**

A screenshot of a computer code

AI-generated content may be incorrect.

**Train Multiple Models**



**Cross-Validation for All Models**

A screenshot of a computer

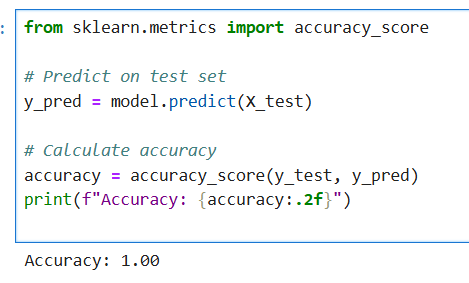
AI-generated content may be incorrect.

**Save the Best Model**

A screenshot of a computer

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**Accuracy Score**



**Confusion Matrix**

A screenshot of a computer

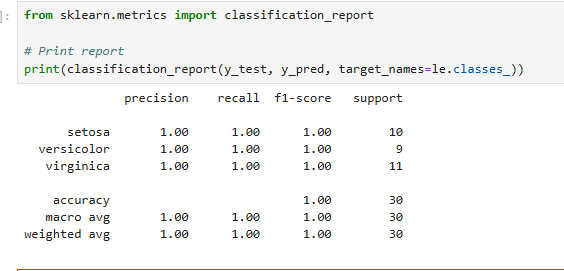
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**Classification Report**

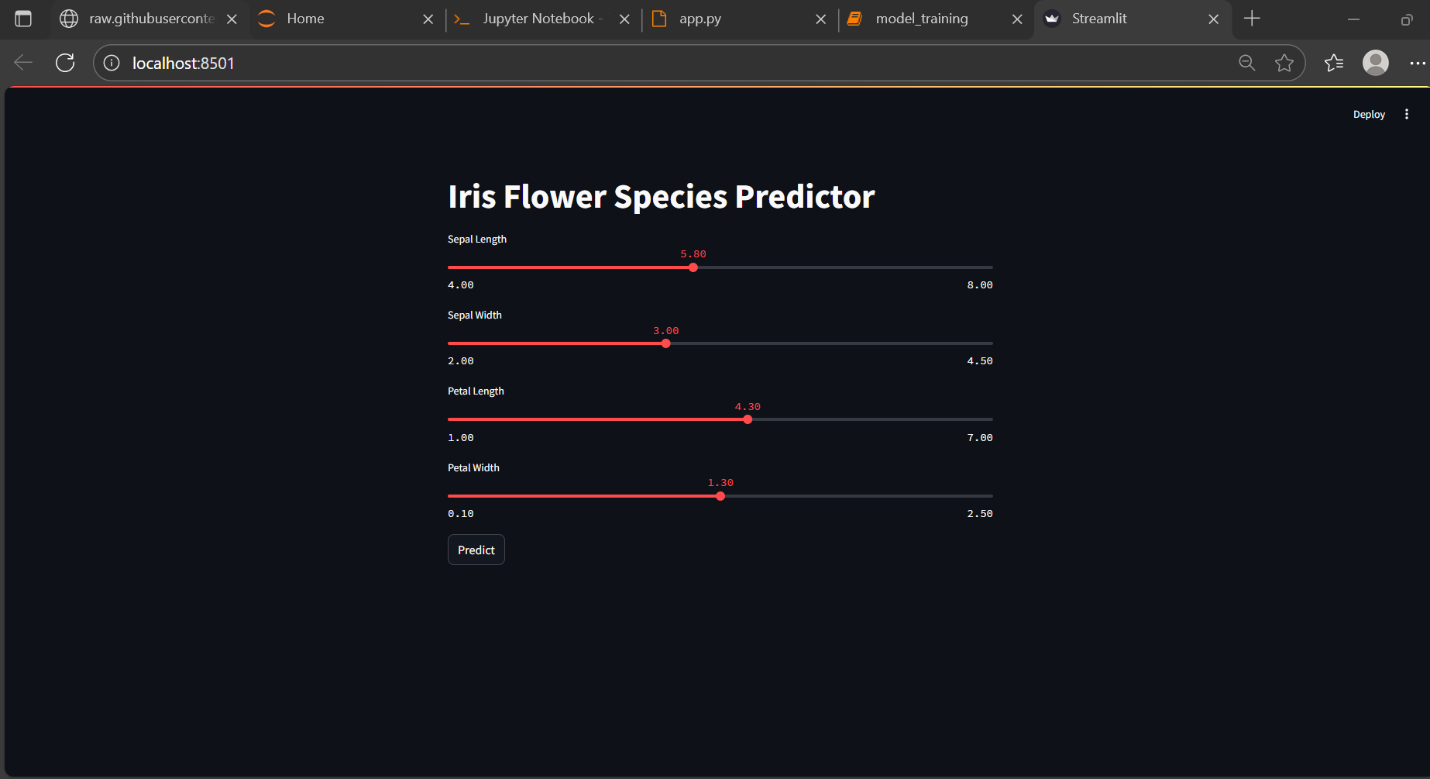
from sklearn.metrics import classification\_report # Print report print(classification\_report(y\_test, y\_pred, target\_names=le.classes\_))

This is the results:

* Precision
* Recall
* F1-score
* Support



**Run the App Locally**



A screenshot of a computer

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