

LogisticRegression

```
import pandas as pd

from sklearn.linear_model import LogisticRegression
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score

# Load the dataset
df = pd.read_csv("Iris.csv")

# Prepare features and labels
X = df[['SepalLengthCm', 'SepalWidthCm', 'PetalLengthCm', 'PetalWidthCm']]
#y = (df['Species'] == 'Iris-setosa').astype(int) # 1 for Setosa, 0 for others
y=df["Species"]

# Train-test split
X_train, X_test, y_train, y_test = train_test_split( X, y, test_size=0.2,random_state=40)

# Initialize and train logistic regression model
model = LogisticRegression(
    penalty='l2',
    C=2.0,
    solver='liblinear',
    max_iter=1000
)

model.fit(X_train, y_train)

# Predict and evaluate
y_pred = model.predict(X_test)
accuracy = accuracy_score(y_test, y_pred)

print("Accuracy:", accuracy)
```