Iris Flower Classification Model

Machine Learning Model for Classifying Iris Flower Species

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1. Introduction

This project focuses on classifying Iris flowers into three species based on their physical attributes, such as sepal length, sepal width, petal length, and petal width. The machine learning model aims to achieve high accuracy in identifying the species of Iris flowers.

2. Model Overview:

The classification task was tackled using the Logistic Regression algorithm, chosen for its simplicity and effectiveness in binary and multi-class classification problems. The model was trained on the Iris dataset and achieved an accuracy of 100%.

3. Data Preprocessing:

The dataset was cleaned to remove any missing or irrelevant values. Features such as sepal and petal length/width were standardized and prepared for model training.

4. Model Performance:

The Logistic Regression model achieved an accuracy of 100%. The classification report shows perfect precision, recall, and F1 scores for each class.

5. Visualizations: Output Screenshots
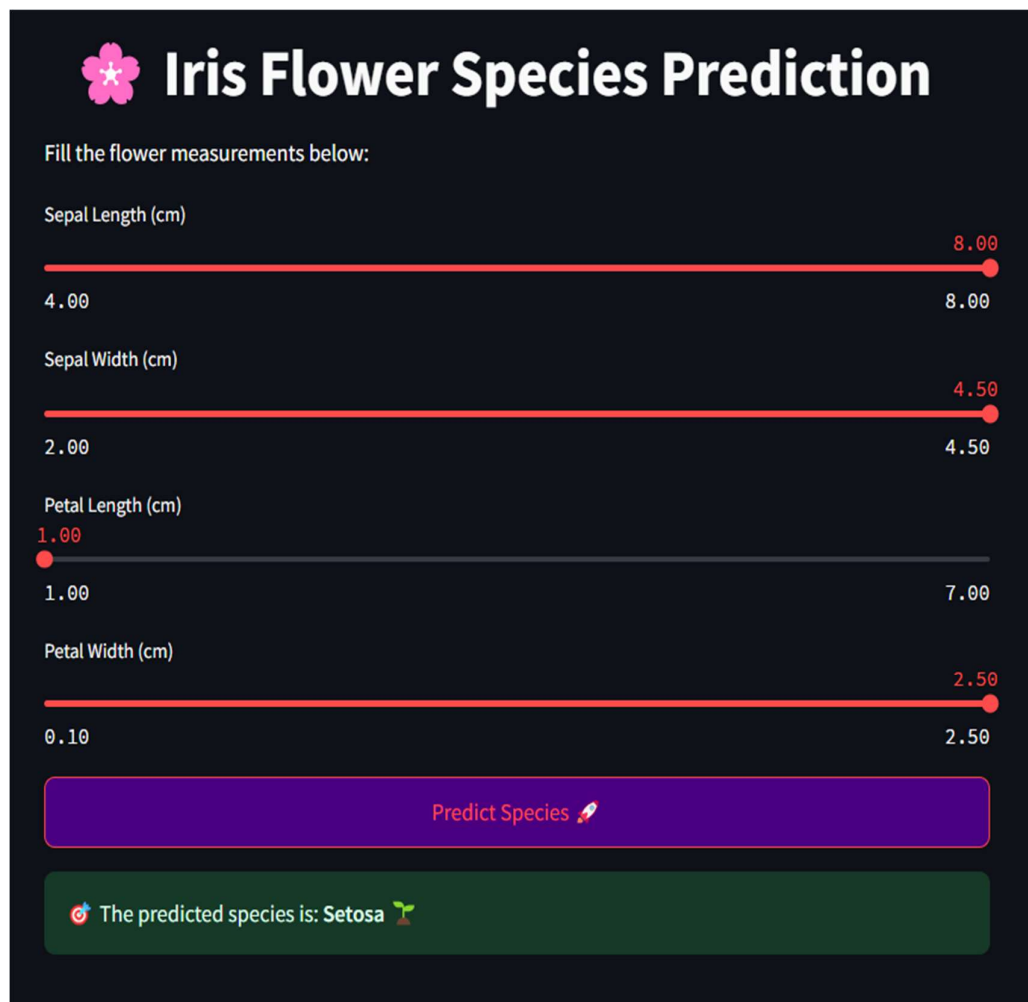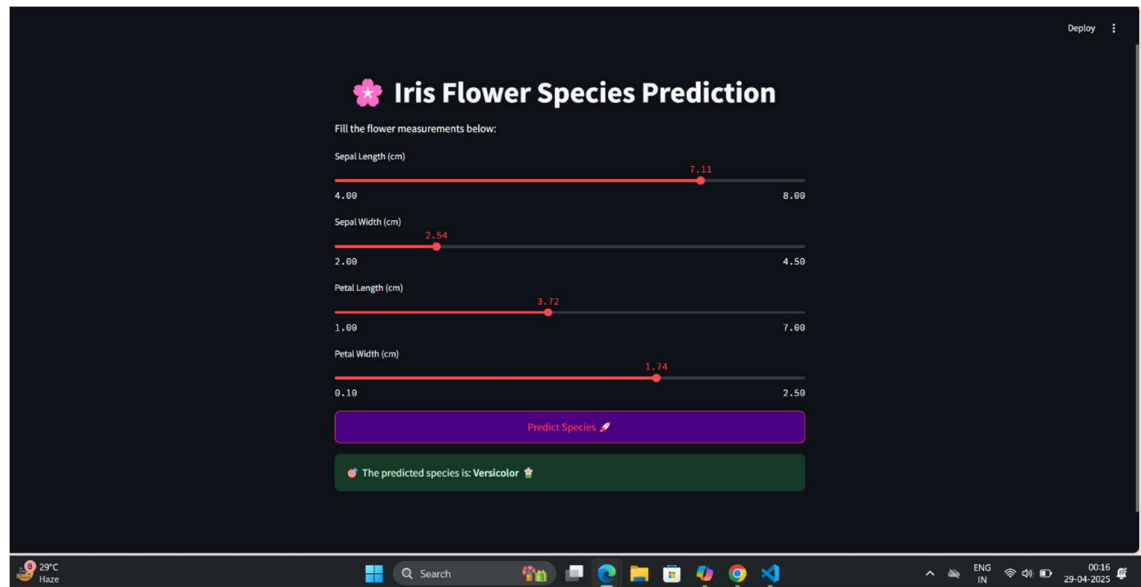
🌸 **Iris Flower Species Prediction**

Fill the flower measurements below:

Sepal Length (cm)

7.11

4.00   8.00

Sepal Width (cm)

2.54

2.00   4.50

Petal Length (cm)

3.72

1.00   7.00

Petal Width (cm)

1.74

0.10   2.50

Predict Species 🚀

🎯 The predicted species is: **Versicolor** 🪴

🌸 Iris Flower Species Prediction

Fill the flower measurements below:

Sepal Length (cm)

8.00

4.00   8.00

Sepal Width (cm)

4.50

2.00   4.50

Petal Length (cm)

1.00

1.00   7.00

Petal Width (cm)

2.50

0.10   2.50

Predict Species 🚀

🎯 The predicted species is: **Setosa** 🌱

Conclusion:

The model successfully classifies Iris flowers into three species with 100% accuracy. Future improvements may involve experimenting with different models or introducing additional features.