

Heroku Cloud & API Deployment

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Batch Code: LISUM45

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Model Setup:

Loading the data:

```
iris = load_iris()
X, y = iris.data, iris.target
```

Training the data:

```
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
clf = DecisionTreeClassifier(random_state=42)
clf.fit(X_train, y_train)
```

Predicting the data:

```
y_pred = clf.predict(X_test)
```

test_api.py file:

```
import requests
```

```
# Replace with your deployed app URL
```

```
url = "https://iris-flower-app-bhavya-7ab98c1e8c35.herokuapp.com/api"
```

```
# Sample input: Sepal Length, Sepal Width, Petal Length, Petal Width
```

```
payload = {
    "features": [2.38, 5.21, 3.45, 2.45]
}
```

```
# Send POST request
```

```
response = requests.post(url, json=payload)
```

```
# Output the result
```

```
if response.status_code == 200:
```

```
    print("✅ Success:", response.json())
```

```
else:
```

```
    print("❌ Failed:", response.status_code, response.text)
```

Heroku web deployment

The screenshot shows a web browser with the URL `iris-flower-app-bhavya-7ab98c1e8c35.herokuapp.com`. The page features a background image of a sunset over water. In the center, there is a white card titled "Iris Flower Predictor". The card contains four input fields with the following labels and values:

- Sepal Length: 2.38
- Sepal Width: 5.21
- Petal Length: 3.45
- Petal Width: 2.45

Below the input fields is a "Predict" button.

Prediction:

The screenshot shows the same web browser with the URL `iris-flower-app-bhavya-7ab98c1e8c35.herokuapp.com/predict`. The "Iris Flower Predictor" card is still present, but the input fields are now empty. Below the input fields, the "Predict" button is still visible. At the bottom of the card, the text "Predicted Class: 2" is displayed.

Site hosted on: <https://iris-flower-app-bhavya-7ab98c1e8c35.herokuapp.com/>

Confirming that the API is running via Terminal:

```
bhavya@bhavyas-linux:~/Documents/dg/week_5$ curl -X POST https://iris-flower-app-bhavya-7ab98c1e8c35.herokuapp.com/api \
> -H "Content-Type: application/json" \
> -d '{"features": [2.38, 5.21, 3.45, 2.45]}'
{"prediction": [2]}
bhavya@bhavyas-linux:~/Documents/dg/week_5$ python3 test_api.py
✔ Success: {'prediction': [2]}
```