**Iris flower classifications analysis**

import pandas as pd

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

from sklearn.ensemble import RandomForestClassifier

from sklearn.metrics import classification\_report, accuracy\_score

from sklearn.datasets import load\_iris

# Load the iris dataset directly from scikit-learn

iris = load\_iris()

df = pd.DataFrame(data=iris.data, columns=iris.feature\_names)

df['species'] = iris.target

df['species'] = df['species'].map({0: 'setosa', 1: 'versicolor', 2: 'virginica'})

# Features and target

X = df.iloc[:, :-1] # all columns except the last

y = df['species'] # the last column

# Split the dataset into training and testing sets

X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.2, random\_state=42)

# Create a Random Forest classifier

model = RandomForestClassifier()

# Train the model

model.fit(X\_train, y\_train)

# Make predictions on the test set

y\_pred = model.predict(X\_test)

# Evaluate the model

print("Accuracy:", accuracy\_score(y\_test, y\_pred))

print("\nClassification Report:\n", classification\_report(y\_test, y\_pred))