

1_logistic_regression.py

```
import pandas as pd
from sklearn.datasets import load_iris
from sklearn.linear_model import LogisticRegression
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score

# Load dataset
iris = load_iris()
X, y = iris.data, iris.target

# Train-test split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

# Train Logistic Regression model
model = LogisticRegression(max_iter=200)
model.fit(X_train, y_train)

# Predictions
y_pred = model.predict(X_test)

# Accuracy
print("Logistic Regression Accuracy:", accuracy_score(y_test, y_pred))
```

2_decision_tree.py

```
import pandas as pd
from sklearn.datasets import load_iris
from sklearn.tree import DecisionTreeClassifier
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score

# For simplicity, use Iris dataset (instead of Titanic which needs extra cleaning)
iris = load_iris()
X, y = iris.data, iris.target

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

model = DecisionTreeClassifier()
model.fit(X_train, y_train)
y_pred = model.predict(X_test)

print("Decision Tree Accuracy:", accuracy_score(y_test, y_pred))
```

3_knn.py

```
from sklearn.datasets import load_digits
from sklearn.neighbors import KNeighborsClassifier
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score

# Load dataset
digits = load_digits()
X, y = digits.data, digits.target

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

# KNN model
model = KNeighborsClassifier(n_neighbors=5)
model.fit(X_train, y_train)
y_pred = model.predict(X_test)

print("KNN Accuracy:", accuracy_score(y_test, y_pred))
```

4_svm.py

```
from sklearn.datasets import load_breast_cancer
from sklearn.svm import SVC
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score

# Load dataset
cancer = load_breast_cancer()
X, y = cancer.data, cancer.target

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

# SVM model
model = SVC(kernel='linear')
model.fit(X_train, y_train)
y_pred = model.predict(X_test)

print("SVM Accuracy:", accuracy_score(y_test, y_pred))
```

5_random_forest.py

```
from sklearn.datasets import load_wine
from sklearn.ensemble import RandomForestClassifier
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score

# Load dataset
wine = load_wine()
X, y = wine.data, wine.target

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

# Random Forest model
model = RandomForestClassifier(n_estimators=100, random_state=42)
model.fit(X_train, y_train)
y_pred = model.predict(X_test)

print("Random Forest Accuracy:", accuracy_score(y_test, y_pred))
```