

## SOURCE CODE

```
import pandas as pd

from sklearn.ensemble import RandomForestClassifier
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score

# Sample data (normally you'd load this from a file)
data = {
    'weather': [0, 1, 0, 2, 1],    # 0=Clear, 1=Rain, 2=Fog
    'road_type': [1, 0, 1, 1, 0],  # 0=Highway, 1=City
    'light': [0, 1, 0, 1, 0],      # 0=Daylight, 1=Night
    'severity': [0, 1, 0, 1, 0]    # 0=Low, 1=High
}

df = pd.DataFrame(data)

# Features and target
X = df[['weather', 'road_type', 'light']]
y = df['severity']

# Split the data
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

# Train model
model = RandomForestClassifier()
model.fit(X_train, y_train)

# Predict
y_pred = model.predict(X_test)
```

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