

# C1\_W3\_Lab07\_Scikit\_Learn\_Soln

December 30, 2023

## 1 Ungraded Lab: Logistic Regression using Scikit-Learn

### 1.1 Goals

In this lab you will: - Train a logistic regression model using scikit-learn.

### 1.2 Dataset

Let's start with the same dataset as before.

```
[ ]: import numpy as np

X = np.array([[0.5, 1.5], [1,1], [1.5, 0.5], [3, 0.5], [2, 2], [1, 2.5]])
y = np.array([0, 0, 0, 1, 1, 1])
```

### 1.3 Fit the model

The code below imports the [logistic regression model](#) from scikit-learn. You can fit this model on the training data by calling `fit` function.

```
[ ]: from sklearn.linear_model import LogisticRegression

lr_model = LogisticRegression()
lr_model.fit(X, y)
```

### 1.4 Make Predictions

You can see the predictions made by this model by calling the `predict` function.

```
[ ]: y_pred = lr_model.predict(X)

print("Prediction on training set:", y_pred)
```

## 1.5 Calculate accuracy

You can calculate this accuracy of this model by calling the `score` function.

```
[ ]: print("Accuracy on training set:", lr_model.score(X, y))
```

```
[ ]:
```