	Cons: Assumes a linear relationship between predictors and target. **Modeling equation:** y = $b_0 + b_1x_1 + b_2x_2$ + ...	

Logistic regression	**Purpose:** To predict probabilities of categorical outcomes.
	Pros: Efficient for binary classification problems.
	Cons: Assumes a linear relationship between independent variables and log-odds.
	Modeling equation: log(p/(1-p)) = $b_0 + b_1x_1$ + ...
		`from sklearn.linear_model import LogisticRegression`
		`model = LogisticRegression()`
		`model.fit(X, y)`

Associated functions commonly used

Function/Method Name	Brief Description	Code Syntax

train_test_split	Splits the dataset into training and testing subsets to evaluate the model's performance.	`from sklearn.model_selection import train_test_split`
		`X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)`

StandardScaler	Standardizes features by removing the mean and scaling to unit variance.	`from sklearn.preprocessing import StandardScaler`
		`scaler = StandardScaler()`
		`X_scaled = scaler.fit_transform(X)`

log_loss	Calculates the logarithmic loss, a performance metric for classification models.	`from sklearn.metrics import log_loss`
		`loss = log_loss(y_true, y_pred_proba)`

mean_absolute_error	Calculates the mean absolute error between actual and predicted values.	`from sklearn.metrics import mean_absolute_error`
		`mae = mean_absolute_error(y_true, y_pred)`

mean_squared_error	Computes the mean squared error between actual and predicted values.	`from sklearn.metrics import mean_squared_error`
		`mse = mean_squared_error(y_true, y_pred)`

root_mean_squared_error	Calculates the root mean squared error (RMSE), a commonly used metric for regression tasks.	`from sklearn.metrics import mean_squared_error`
		`import numpy as np`
		`rmse = np.sqrt(mean_squared_error(y_true, y_pred))`

r2_score	Computes the R-squared value, indicating how well the model explains the variability of the target variable.	`from sklearn.metrics import r2_score`
		`r2 = r2_score(y_true, y_pred)`

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