

# No-Code ML Pipeline Builder

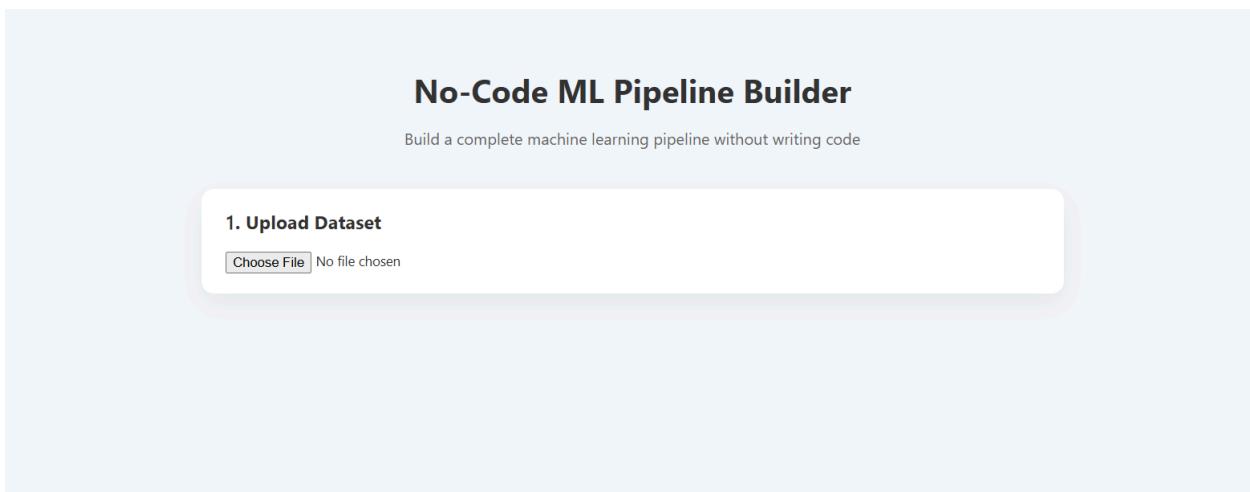
## Overview

The **No-Code ML Pipeline Builder** allows users to build and run a complete machine learning workflow **without writing any code**.

The application guides users step-by-step through data upload, preprocessing, model training, and result visualization.

Each step becomes visible **only after the previous step is completed**, ensuring clarity and preventing mistakes.

### 1. Upload Dataset



#### What this step does

Allows you to upload your dataset into the system.

#### How to use

- i. Click Choose File
- ii. Upload a dataset
- iii. Once uploaded, the system automatically displays:
  - a. Number of rows
  - b. Number of columns
  - c. Column names

# No-Code ML Pipeline Builder

Build a complete machine learning pipeline without writing code

## 1. Upload Dataset

data.csv

Rows: 303 | Columns: 15

**Column Names:** [ "sno", "age", "gender", "cp", "trestbps", "chol", "fbs", "restecg", "thalach", "exang", "oldpeak", "slope", "ca", "thal", "target" ]

## 2. Data Preprocessing

Select Target Column

## 2. Data Preprocessing

### What this step does

Prepares raw data so it can be used by machine learning models.

### Actions required

- Select the Target Column
- Choose a **Scaling Method**:
  - Standardize
  - Normalize

### What happens automatically

- Missing values are handled
- Numeric features are scaled
- Categorical features are encoded
- Final feature count is calculated

## 2. Data Preprocessing

target

Standardize      Normalize

**Preprocessing applied and Scaling Method Standardization (StandardScaler)**

**Numeric Features Scaled:**

- sno
- age
- cp
- trestbps
- chol
- fbs
- restecg
- thalach
- exang
- oldpeak
- slope
- ca
- thal

**Categorical Features Encoded:**

- gender

**Final Feature Count: 15**

## 3. Train–Test Split

3. Train–Test Split

80-20    **Apply Split**

### What this step does

Splits the dataset into:

- Training data – used to train the model
- Testing data – used to evaluate performance

### How to use

#### 1. Select a split ratio:

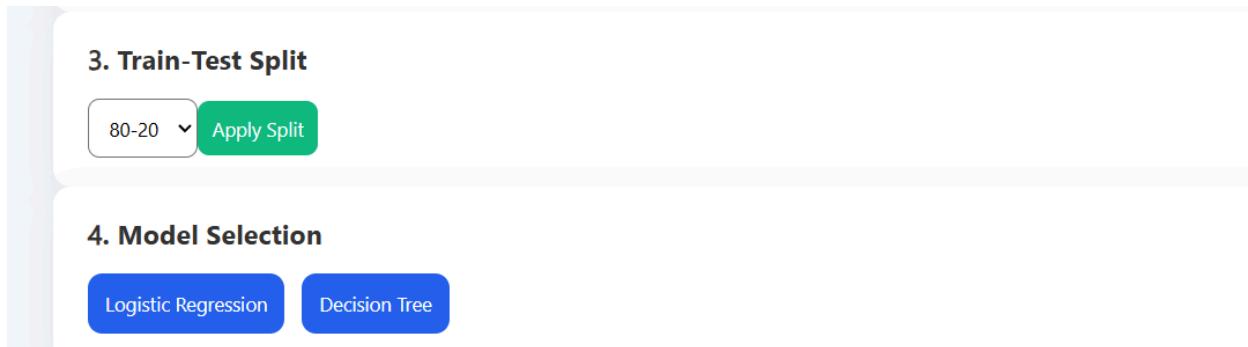
- **80–20 (recommended)**
- **70–30**

## 2. Click Apply Split

### Confirmation

A message confirms that the dataset has been split successfully.

- After splitting, the Model Selection step appears.



## 4. Model Selection

### What this step does

Allows you to choose and train a machine learning model.

### Available models

- **Logistic Regression**
- **Decision Tree Classifier**

### How to use

1. Click on one of the model buttons
2. The model is trained automatically using the processed data

After training completes, the Results section appears.

## 5. Results & Evaluation

### 4. Model Selection

Logistic Regression

Decision Tree

### 5. Results

**Model Used:** Logistic Regression

**Accuracy: 98.36%**

Confusion Matrix

	Predicted: no	Predicted: yes
Actual: no	29	0
Actual: yes	1	31

■ Correct Predictions ■ Incorrect Predictions

Clear and visual model performance metrics.

Displayed information

- Model Used

Example: *Logistic Regression*

- Accuracy Score

Example: 98.36%

- Confusion Matrix

Displayed as a color-coded grid:

○ ■ Green cells → Correct predictions

○ ■ Red cells → Incorrect predictions