ibi Summit 2026

Drag, Drop, Deploy:

The No-Code Machine Learning Workflow

Steve DeWitt, Lead Product Manager

Confidentiality & Disclaimer

The information in this document is confidential information of Cloud Software Group, Inc. and/or its affiliates. Use, duplication, transmission, or republication for any purpose without the prior written consent of Cloud Software Group, Inc. is expressly prohibited.

This document (including, without limitation, any product roadmap or statement of direction data) illustrates the planned testing, release and availability dates for Cloud Software Group, Inc. products and services. This document is provided for informational purposes only and its contents are subject to change without notice. Cloud Software Group, Inc. makes no warranties, express or implied, in or relating to this document or any information in it, including, without limitation, that this document, or any information in it, is error-free or meets any conditions of merchantability or fitness for a particular purpose.

The material provided is for informational purposes only, and should not be relied on in making a purchasing decision. The information is not a commitment, promise or legal obligation to deliver any material, code, or functionality. The development, release, and timing of any features or functionality described for our products remains at our sole discretion.

During the course of this presentation, Cloud Software Group, Inc. or its representatives may make forward-looking statements regarding future events Cloud Software Group, Inc.'s future results or our future financial performance. These statements are based on management's current expectations. Although we believe that the expectations reflected in the forward-looking statements contained in this presentation are reasonable, these expectations or any such forward-looking statements could prove to be incorrect and actual results or financial performance could differ materially from those stated herein. Cloud Software Group, Inc. does not undertake to update any forward-looking statement that may be made from time to time or on its behalf.

© Copyright 2024 Cloud Software Group, Inc.

ibi™ Information Builders

Session Agenda

No-Code ML for WebFOCUS Developers

- The Titanic ML Challenge
- Configuring and Training a Model
- Putting the Model to Work
- Discussion



© Copyright 2026 Cloud Software Group, Inc.

The Titanic Machine Learning Challenge

Predicting Survival with Data Science on Kaggle

Challenge Overview

The classic Kaggle data science competition challenges you to predict which passengers survived the shipwreck based on biographical and travel data.

- **Training Set:** 891 passengers with known survival outcomes.
- **Test Set:** 419 passengers to predict survival outcomes for.

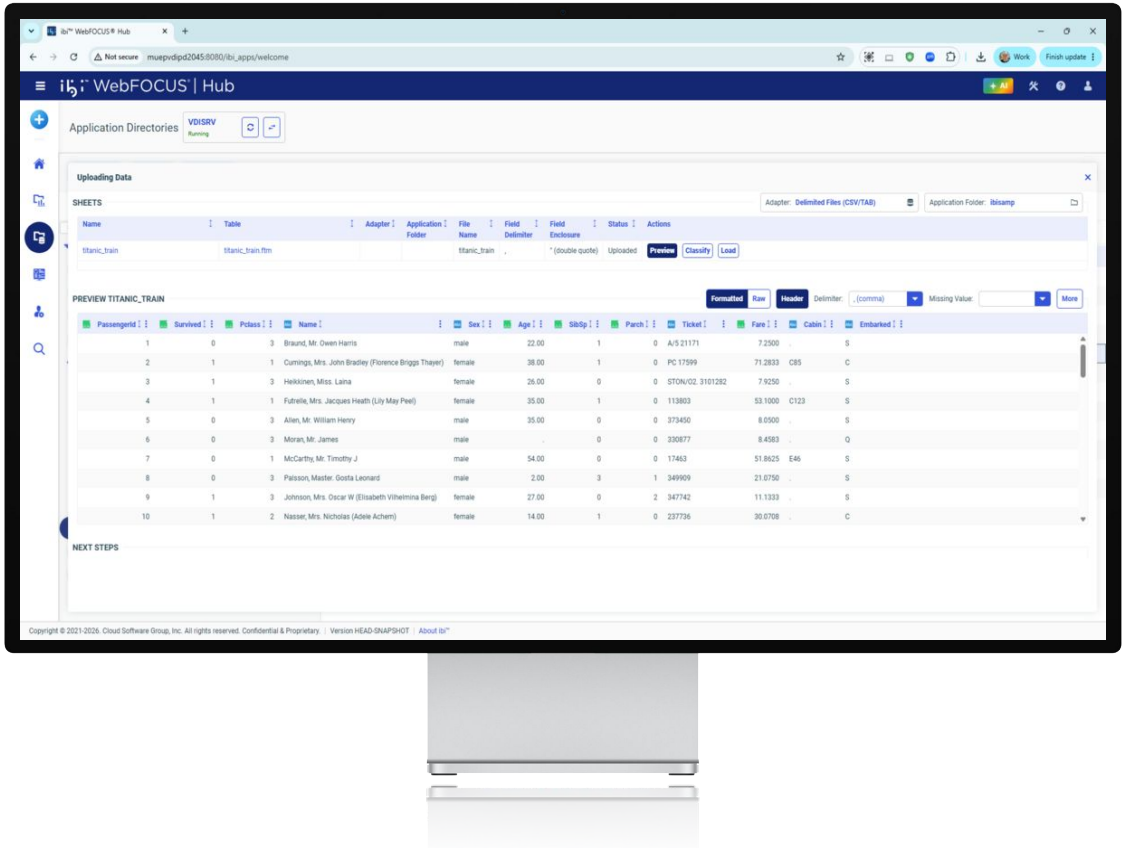


The Passenger Dataset Structure

Field Name : Description
Survived: Target Variable (1 = yes, 0 = no)
Pclass: Ticket Class (1st, 2nd, 3rd)
Sex & Age: Passenger gender and age in years
SibSp: Number of siblings / spouses aboard
Parch: Number of parents / children aboard
Fare & Cabin: Ticket fare price and cabin number
Embarked: Port of embarkation (C, Q, S)

© Copyright 2026 Cloud Software Group, Inc.

Import the Data Set



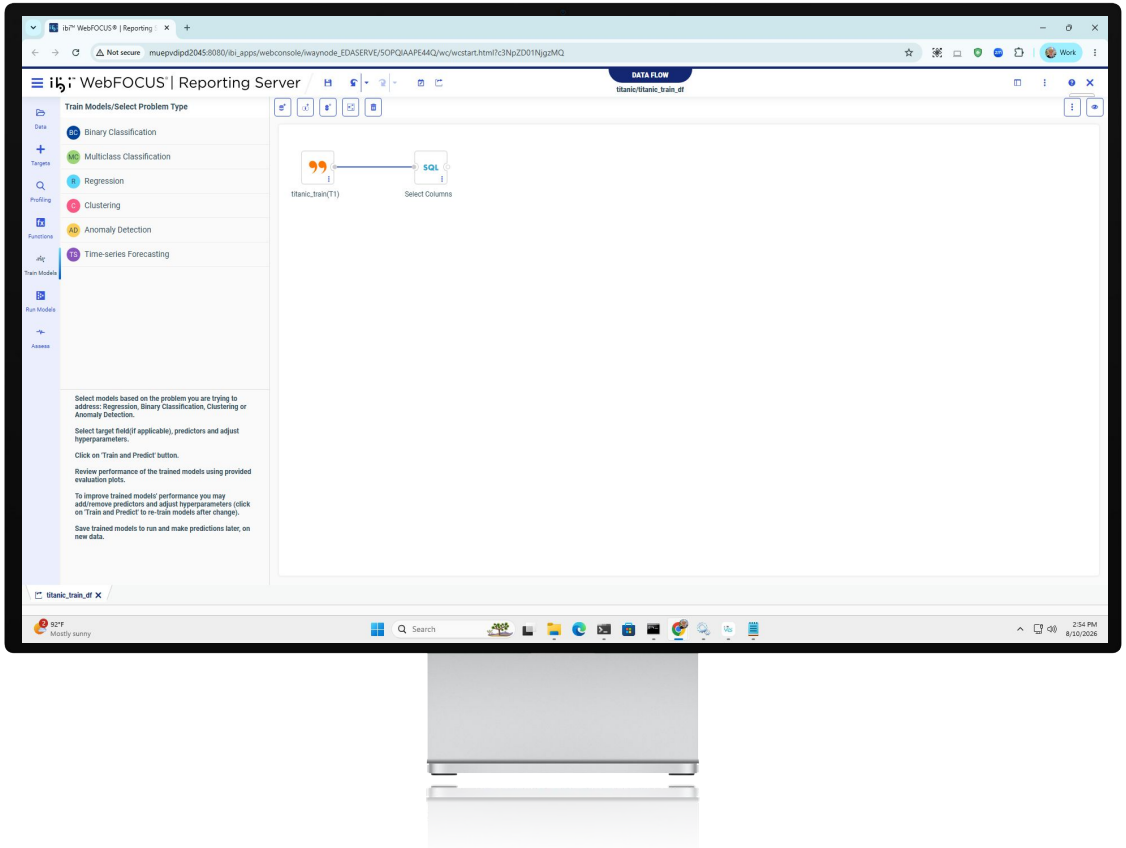
- You can get this data set, and many others, from Kaggle.
- Import the training data into an application folder.

Configuring and Training the Model



© Copyright 2026 Cloud Software Group, Inc.

Defining the Problem: What kind of model do we need?



- We train ML Models as part of a data flow.
- To create a good model, you have to be close to the data!
- Get Started by identifying the problem type.

Machine Learning Problems & Models

Binary Classification

Every record falls into one of two categories. The model predicts which category a given record belongs to based on predictor fields.

Multiclass Classification

Similar to binary classification, but targets are distributed across three or more unique categories to determine group membership.

Regression

Assigns continuous numeric values instead of categories, predicting specific numerical values based on patterns within structural fields.

Clustering

Groups similar records based on underlying patterns across the entire dataset, looking for natural segments without prior target labels.

Time Series Forecast

Takes historically structured chronological datasets to predict future values and analyze trends sequentially over upcoming periods.

© Copyright 2026 Cloud Software Group, Inc.

Defining the Problem: Binary Classification

- **Objective:** Predict Titanic passenger survival based on passenger demographics and travel details.
- **Workspace Configuration:** Choose 'Binary Classification' from the ML setup wizard to automatically configure downstream classification algorithms.
- **Target Variable:** Select 'Survived' as the key field to predict (Binary Classification: 0 = No, 1 = Yes).

© Copyright 2026 Cloud Software Group, Inc.

Predictor Selection

Predictor Fields

Select key explanatory variables like:

- Passenger Class (Pclass)
- Gender (Sex)
- Age, Siblings/Spouses (SibSp), Parents/Children (Parch), and Ticket Fare (Fare).

Excluding Noise

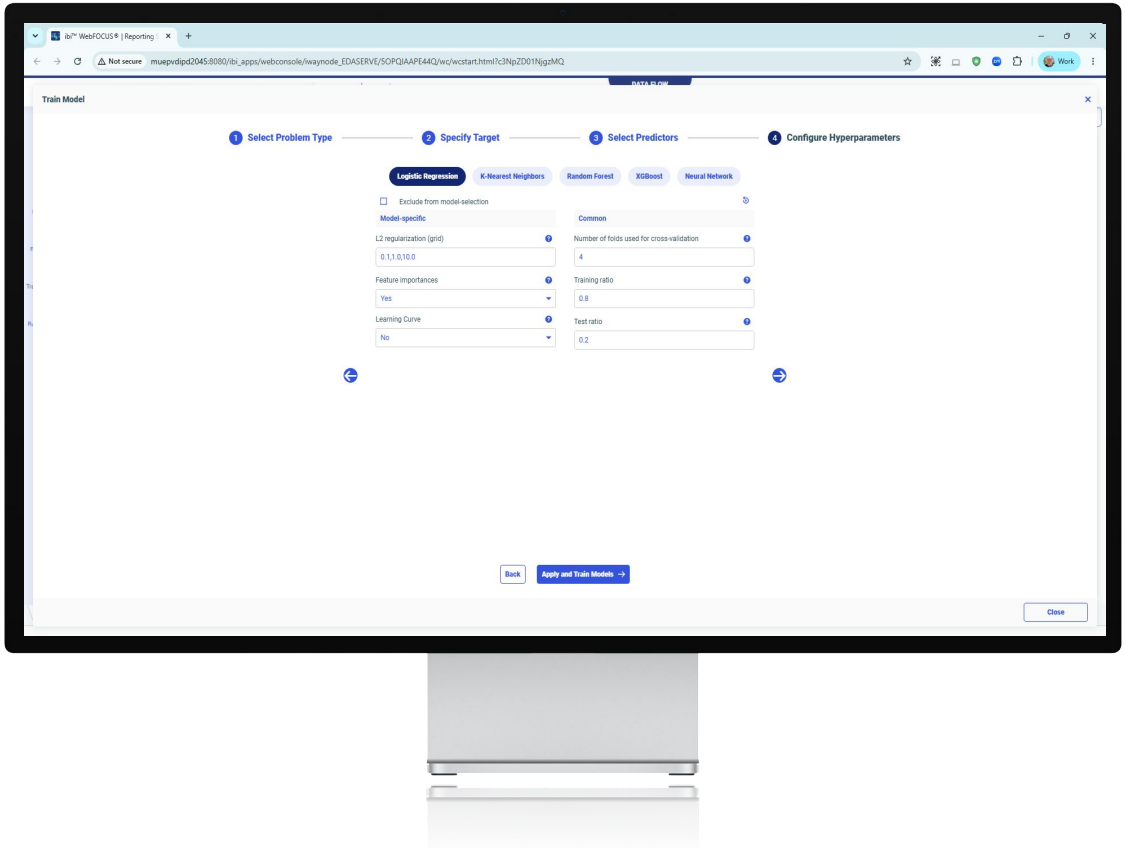
Deselect highly unique, non-predictive features to prevent overfitting. For example:

- PassengerId
- Name
- Ticket
- Cabin

When in doubt, leave it in!

© Copyright 2026 Cloud Software Group, Inc.

About those hyperparameters...



Hyperparameters are advanced settings that control the way models are trained and evaluated.

WebFOCUS defaults for hyperparameters provide a good starting point for most problems.

Evaluation: Model Comparison & Importances

Algorithm Comparison

Metrics Evaluated:

- AUC
- F1-Score
- Accuracy

Evaluated across multiple model types including XGBoost, Random Forest, and Logistic Regression.

XGBoost Selection

Model Performance:

The gradient boosted trees model (XGBoost) demonstrated superior test accuracy and overall generalizability.

82.4%

Test Accuracy

Feature Importance

Top Predictive Features:

01
Sex / Gender
Highest predictive impact

02
Pclass
Passenger ticket class

03
Age
Demographic factor

© Copyright 2026 Cloud Software Group, Inc.

Evaluating Models: Precision vs Recall

Confusion Matrix

	Predicted Negative	Predicted Positive
Actual Negative	91	19
Actual Positive	12	57

Precision: Of what we classified as positive, how many were actually positive? **TP/(TP + FP)**

Recall: Of the actual positives, how many did we get right? **TP/(TP + FN)**

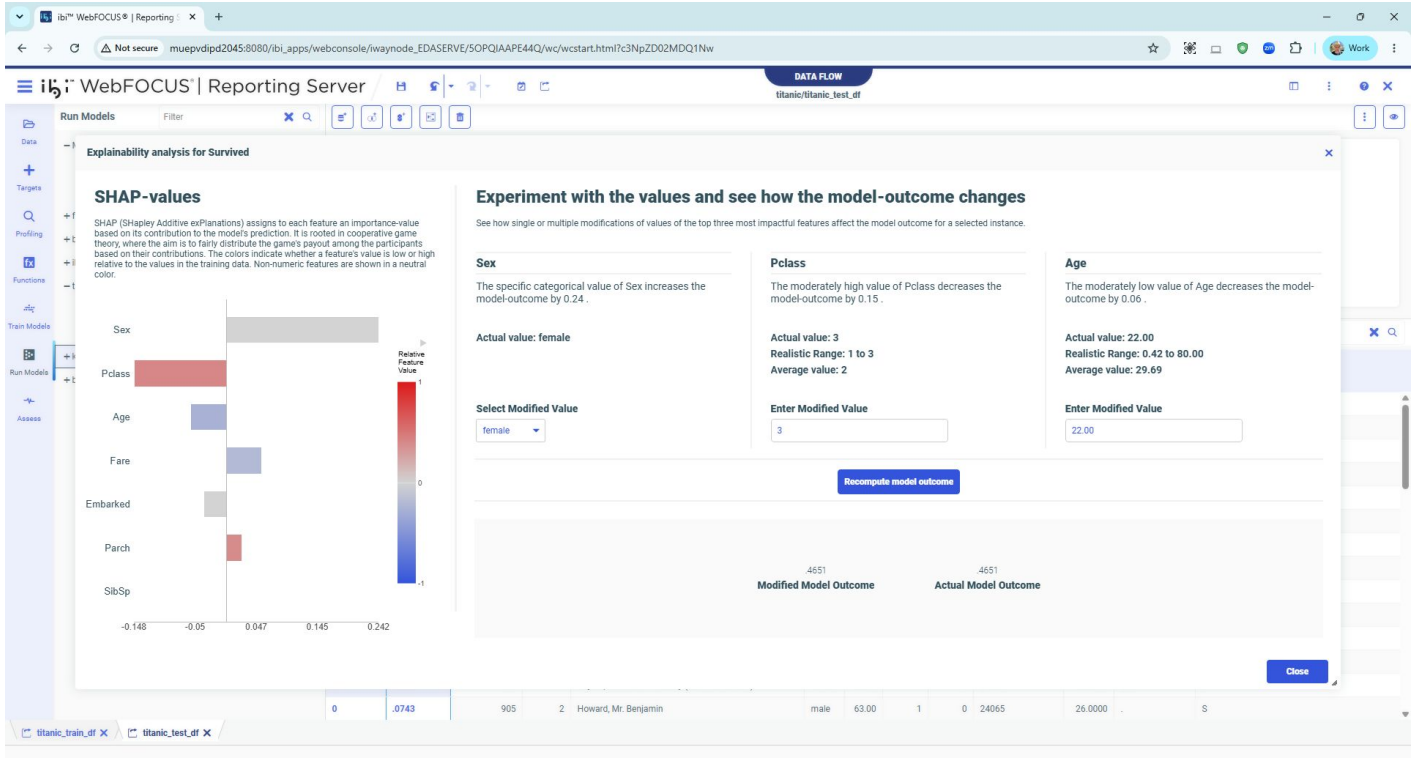
Accuracy: How many predictions were actually right? **(TP + TN)/(TP + TN + FP + FN)**

F1 Score: Balance between Precision and Recall

The optimal threshold depends on what we are doing!

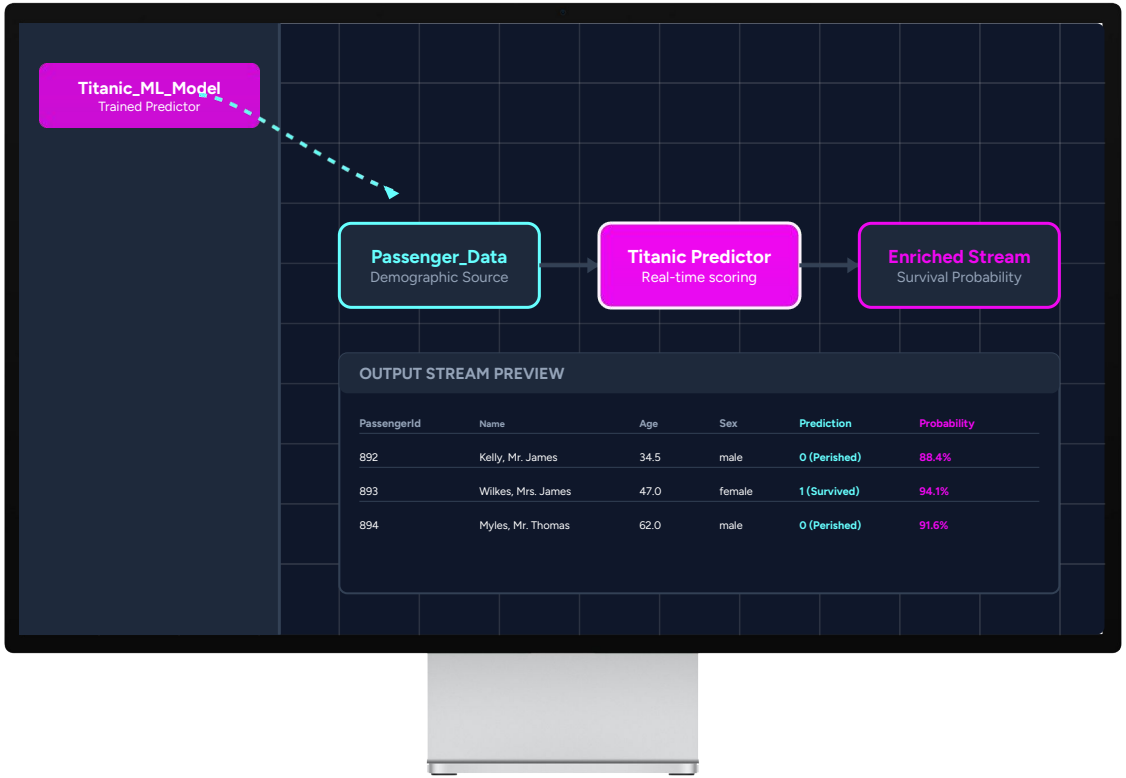
© Copyright 2026 Cloud Software Group, Inc.

Explainability



© Copyright 2026 Cloud Software Group, Inc.

Deployment in WebFOCUS Designer



Instant Integration

Access your trained Titanic ML predictor directly within the WebFOCUS Designer workspace.

Drag and Drop Utility

Easily drag the predictive model node into any data flow to enrich active data streams with real-time survival probability scores.

No-Code Delivery

Business analysts can use the model to score fresh, unlabeled passenger demographic spreadsheets instantly.

© Copyright 2026 Cloud Software Group, Inc.

Exporting Survival Predictions

Real-Time Scoring

Apply the XGBoost model to unseen validation data or new spreadsheets to calculate survival probabilities.

Seamless Export

Export predictions directly to CSV, PDF, or Excel sheets for downstream operational reporting.

Visualize Outcomes

Generate interactive charts representing survival rates segmented by age cohorts and gender.

© Copyright 2026 Cloud Software Group, Inc.



© Copyright 2024 Cloud Software Group, Inc.