



# The Art of Regression & Classification: A Beginner's Guide to Model Training

SkillUp AI

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# Agenda

- Define Machine Learning
- Type of Machine Learning
- Regression vs Classification
- Machine Learning Key Concepts: From Raw Data to Real-World Predictions
- Demos
- Q&A

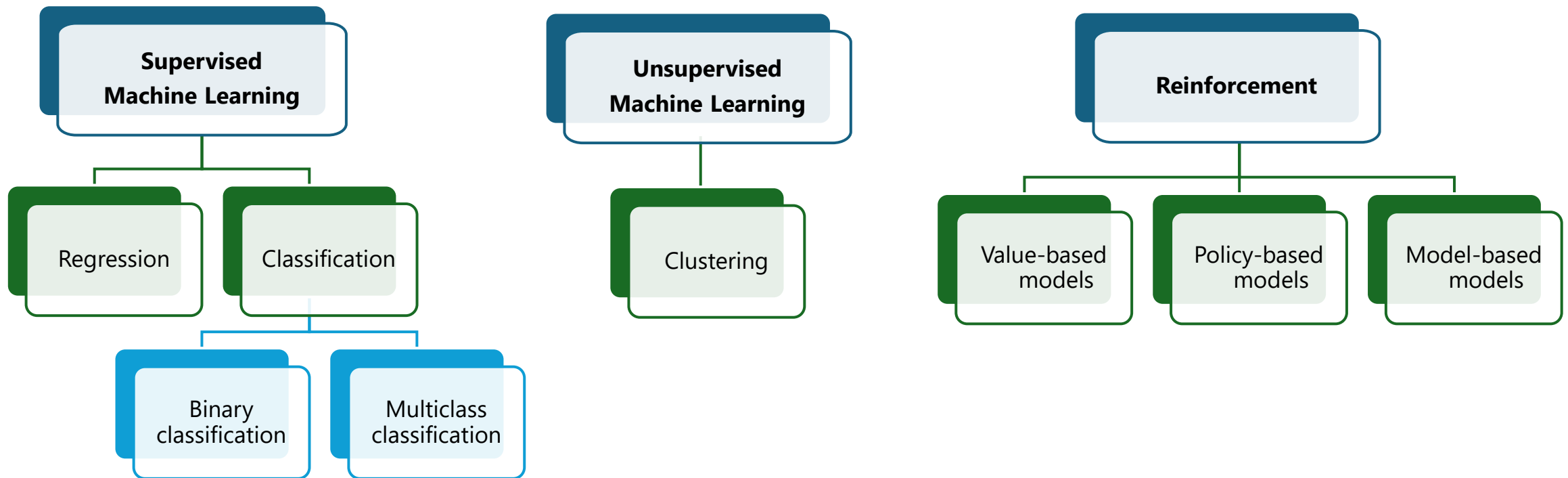


Contoso telecommunications company is experiencing a high rate of customer churn

## Problem:



# Types of machine learning



# Regression VS Classification

## Understanding the Data Types

- Numeric Data
- Categorical Data
  - Nominal
  - Ordinal

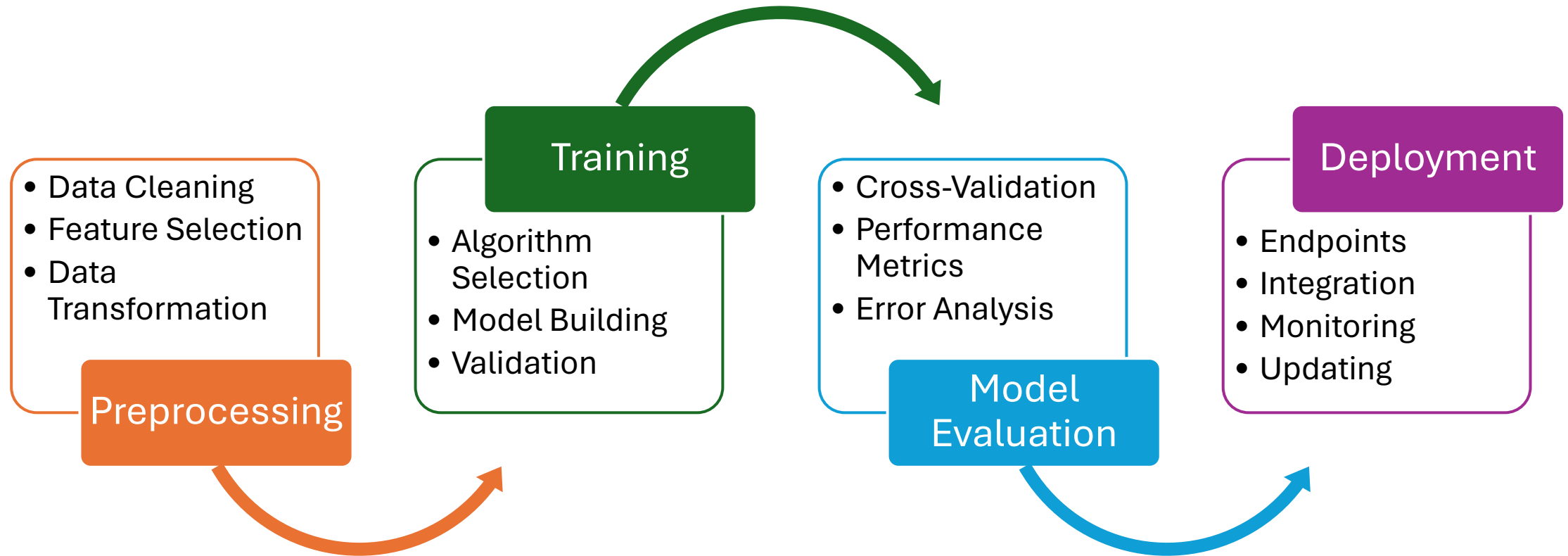
## Regression:

- Predicting continuous values
- Forecasting numerical quantities
- Estimating relationships between variables
- **Example (Algorithms):**
  - Linear Regression
  - Ridge Regression
  - Random Forest Regressor

## Classification:

- Predicting discrete categories
- Classifying data into predefined labels
- Making decisions from categorical data
- **Example (Algorithms):**
  - Logistic Regression
  - K-Nearest Neighbors (KNN)
  - Support Vector Machines (SVM)

# Machine Learning Key Concepts: From Raw Data to Real-World Predictions





# Live Demo on Machine Learning

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# Key Takeaways - Recap

- Regression
  - Minimizing Error
- Classification
  - Maximizing Accuracy





# Thank You!

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