Preparing Data for Feature Engineering and Machine Learning in Microsoft Azure

GETTING STARTED WITH AZURE MACHINE LEARNING

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Why Data Preparation Is Important?

Why Data Preparation Is Important?

Cloud

Big Data

Data Preparation

High-Quality Data

Agenda

Machine Learning

- Azure Machine Learning
- Azure Machine Learning Studio
- **Azure Machine Learning Service**

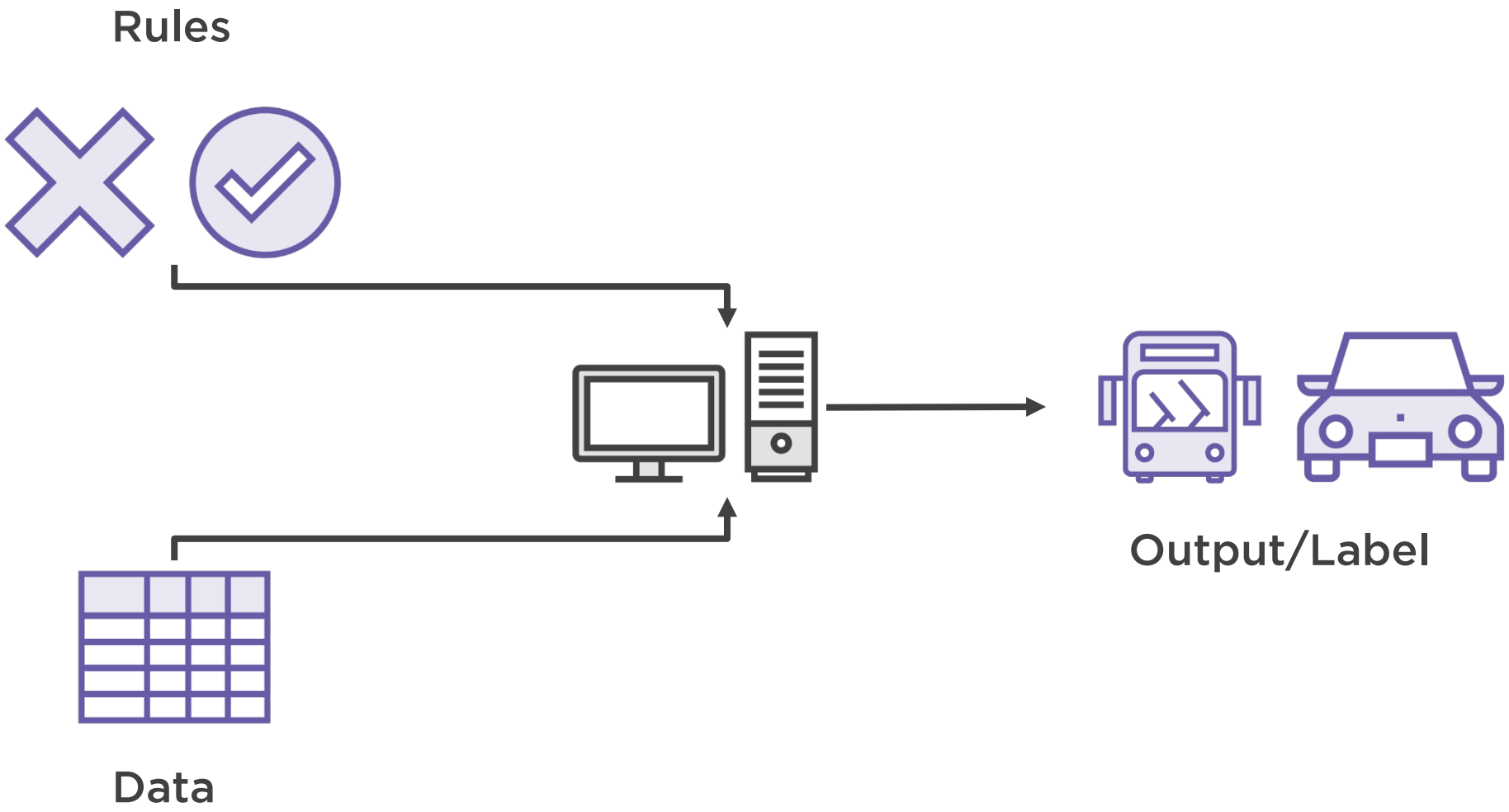
Explore the dataset

What Is Machine Learning?

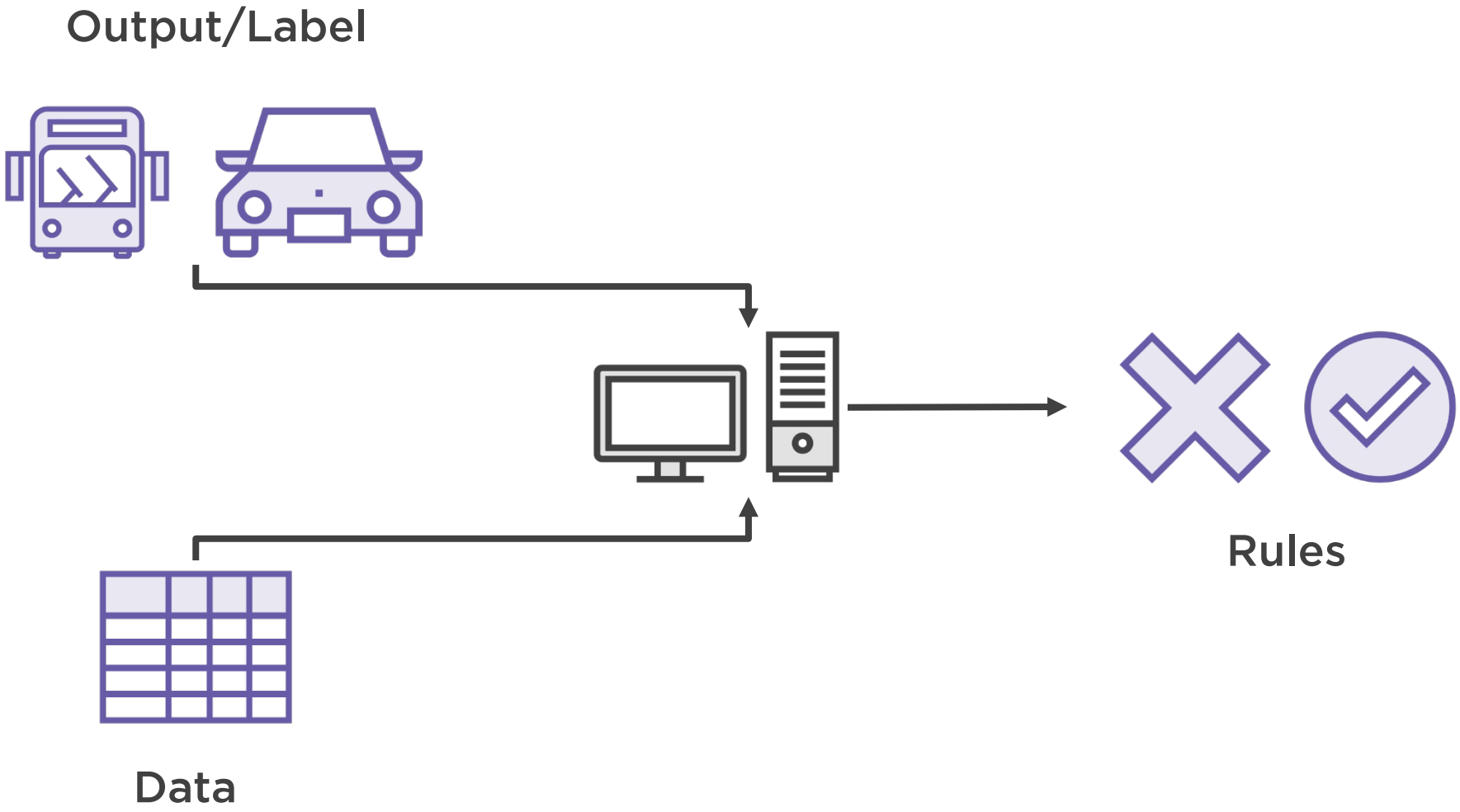
A field of study that gives computers the ability to learn without being explicitly programmed.

Arthur Samuel

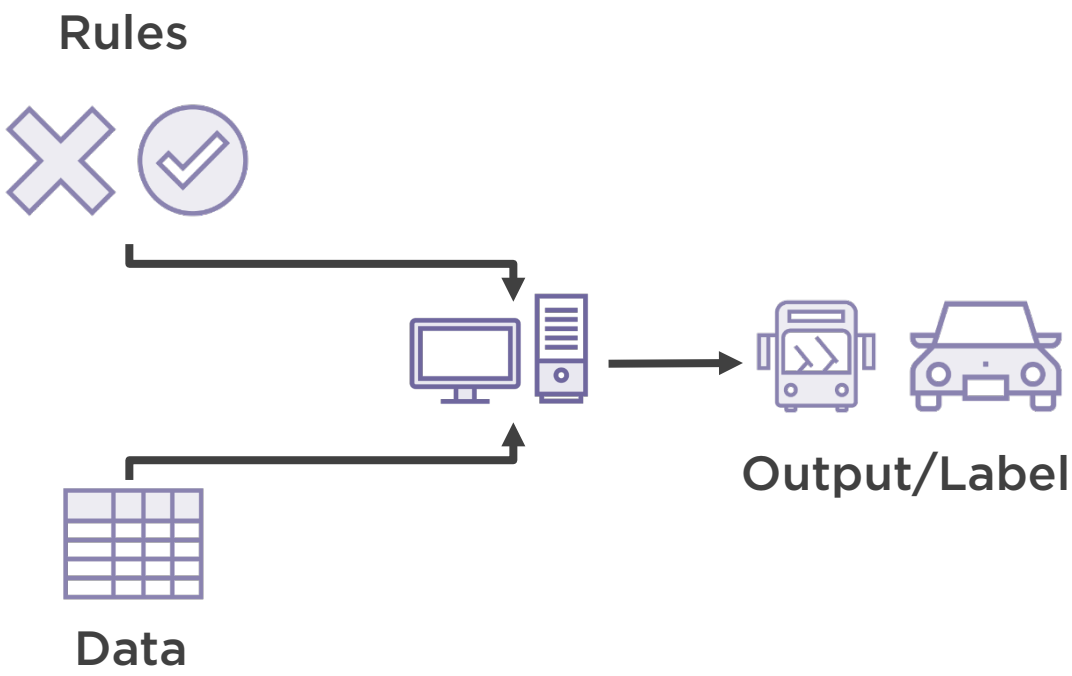
Traditional Programming

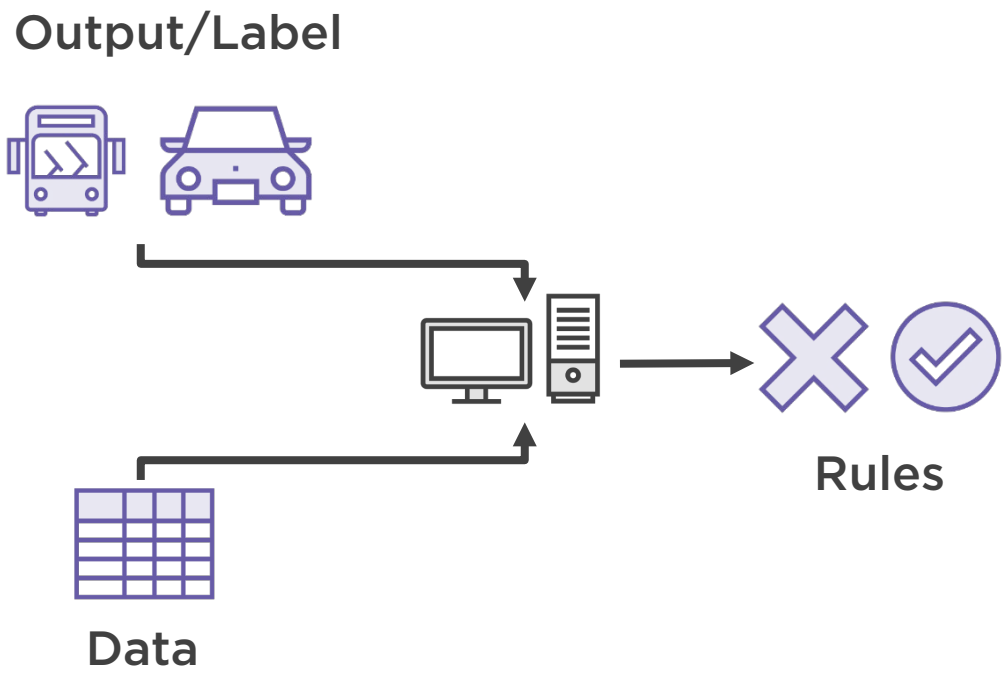


Machine Learning

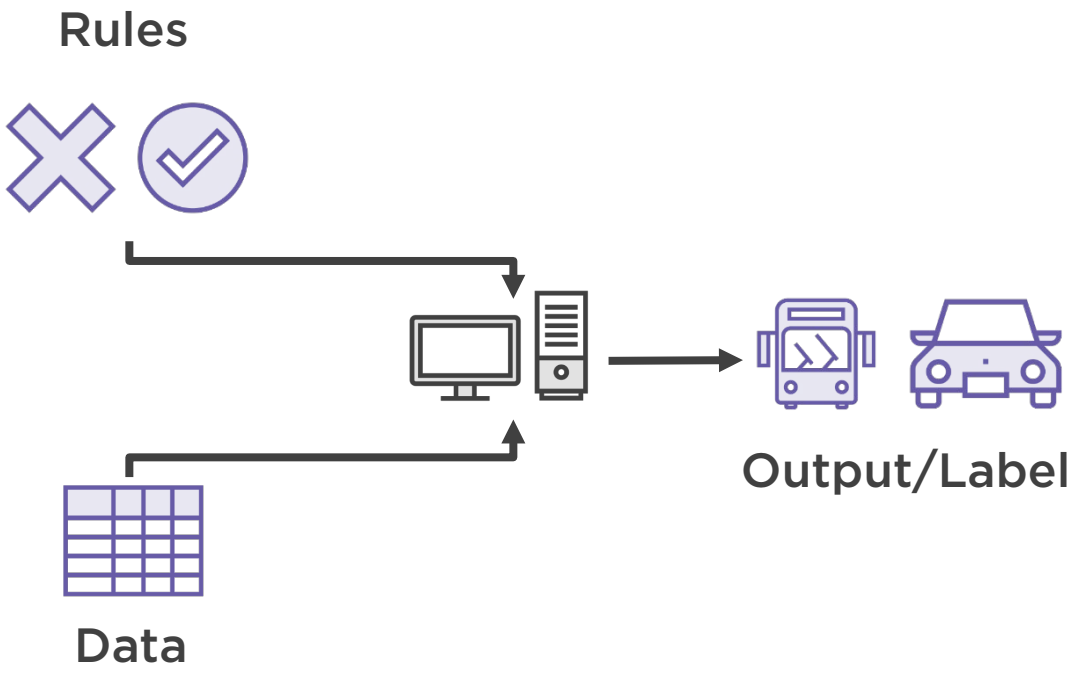


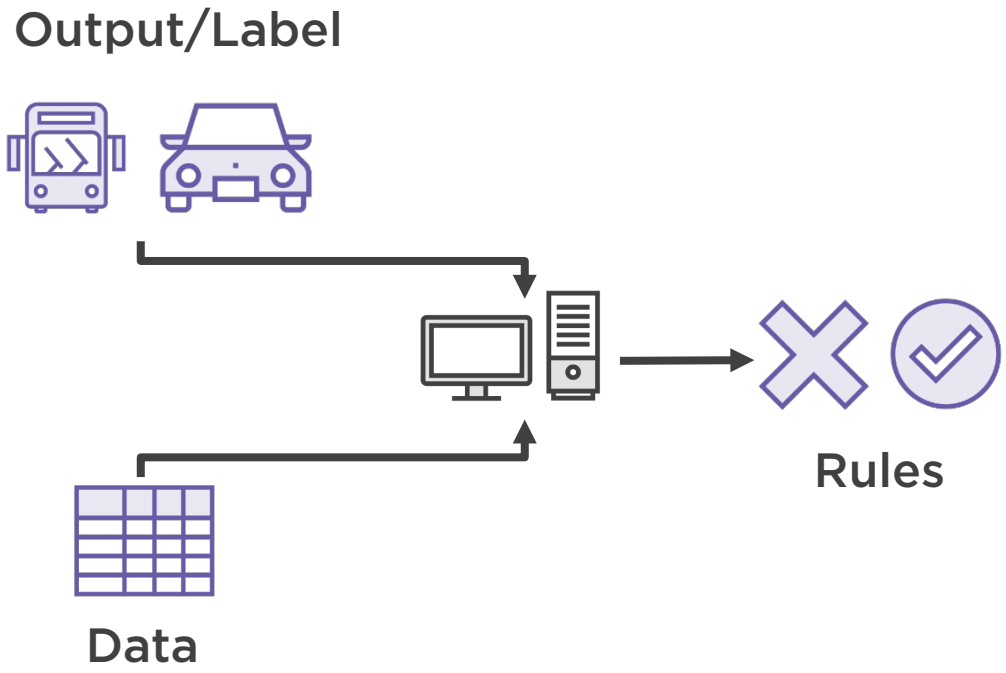
Traditional Programming vs. Machine Learning





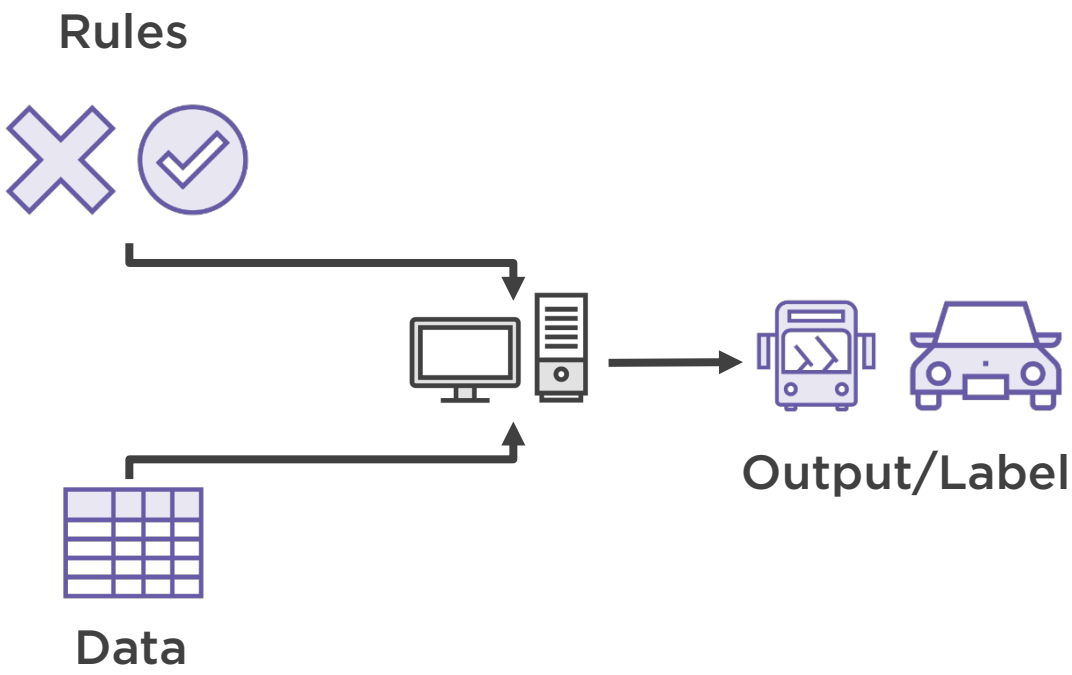
Traditional Programming vs. Machine Learning



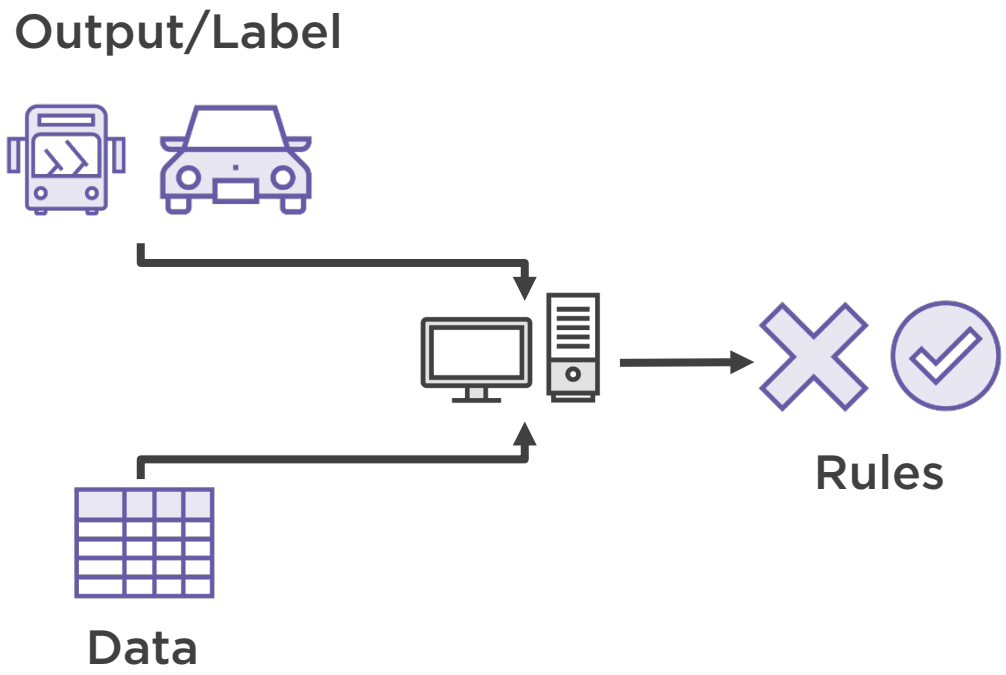



```
If (tumor size >= 1)
      If (mitotic index >= 3)
                                  .......
                                  predict 'cancer'
```

Traditional Programming vs. Machine Learning

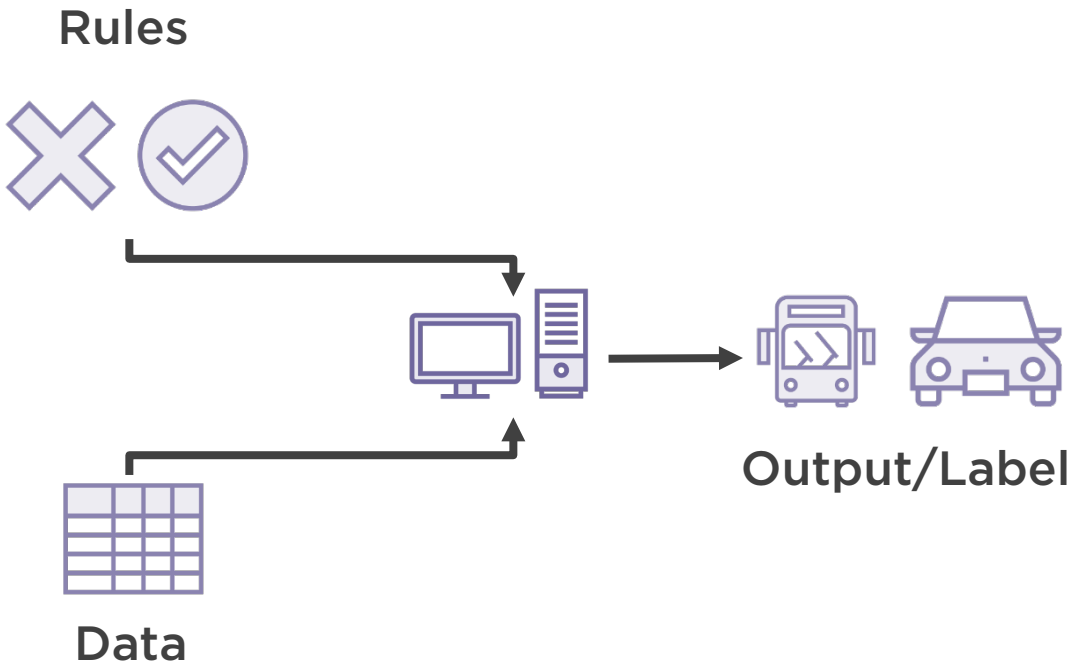


Accuracy: 100%

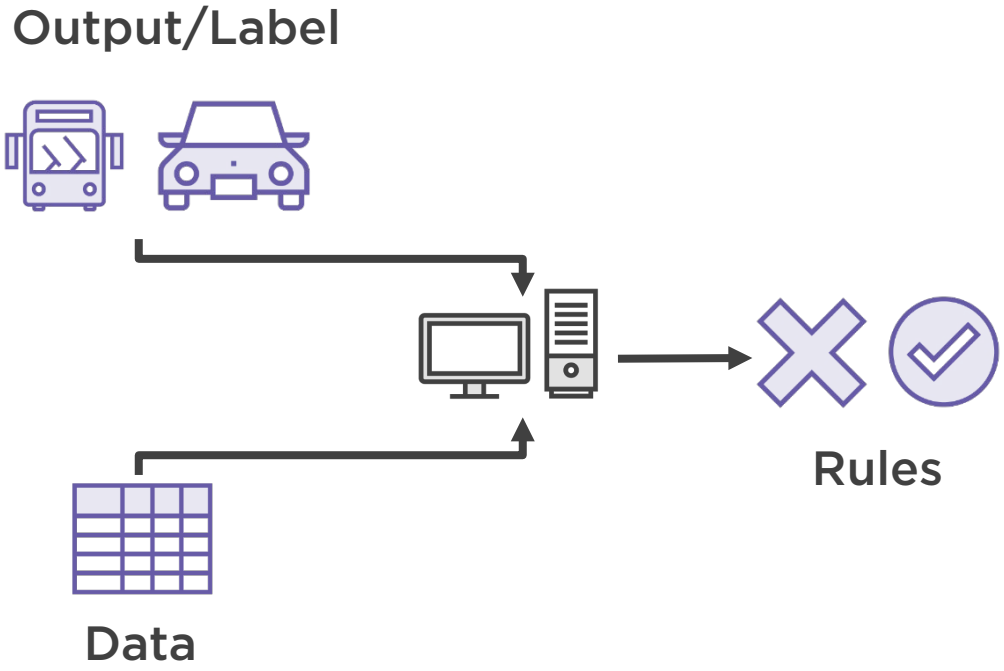


Accuracy: < 100%

Traditional Programming vs. Machine Learning



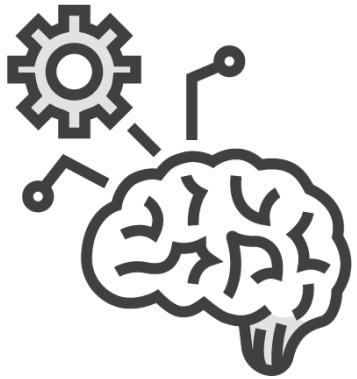
Learn by Memorization



Learn by Comprehension

Traditional Programming vs. Machine Learning

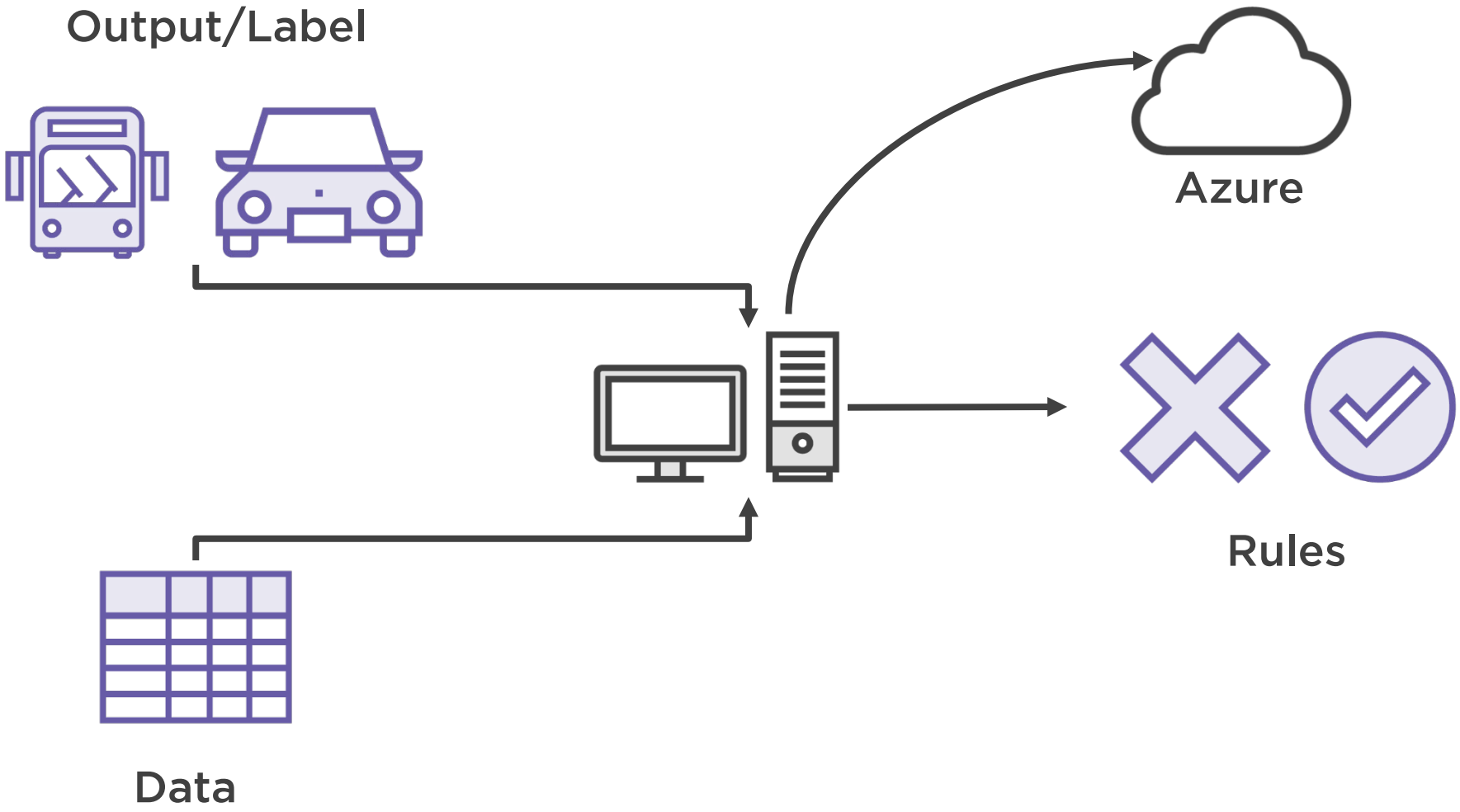
Websites



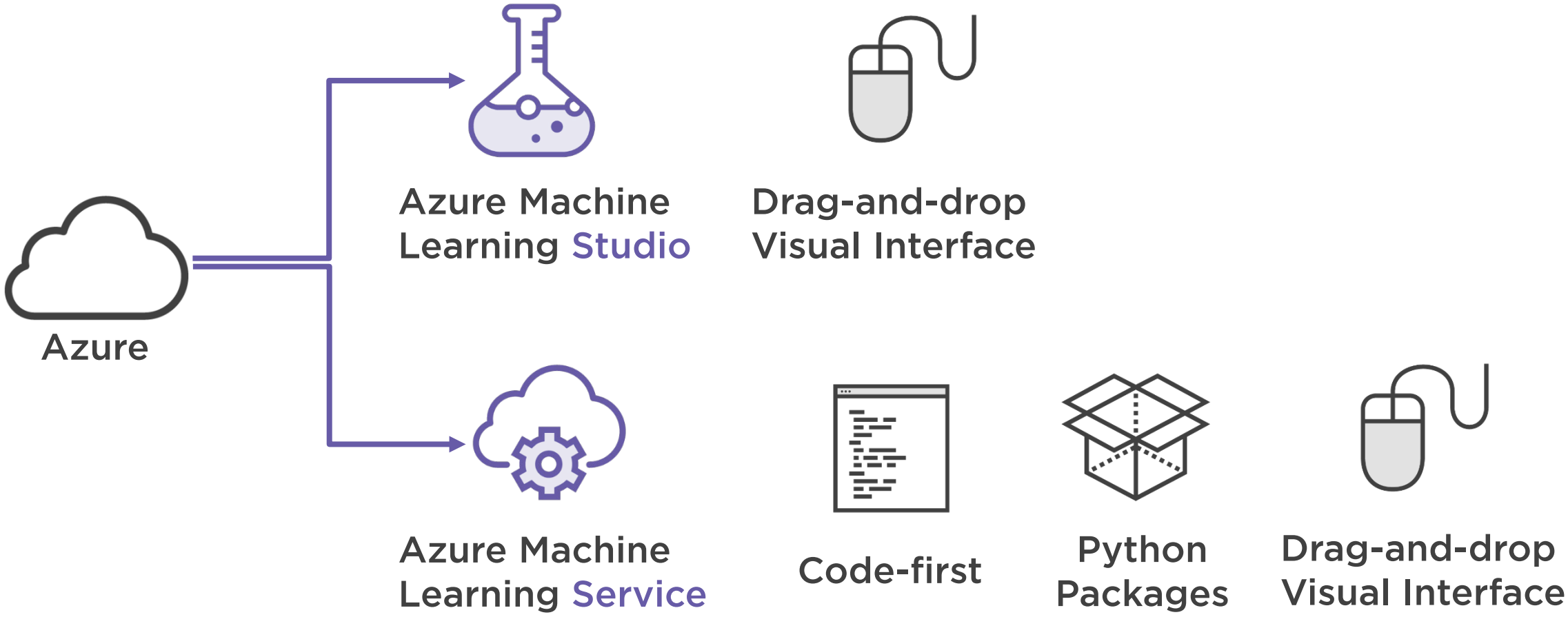
AI & ML

Introduction to Azure Machine Learning

Azure Machine Learning



Azure Machine Learning



Azure Machine Learning

Azure Machine Learning Studio

Only Proprietary Compute use

Only CPU

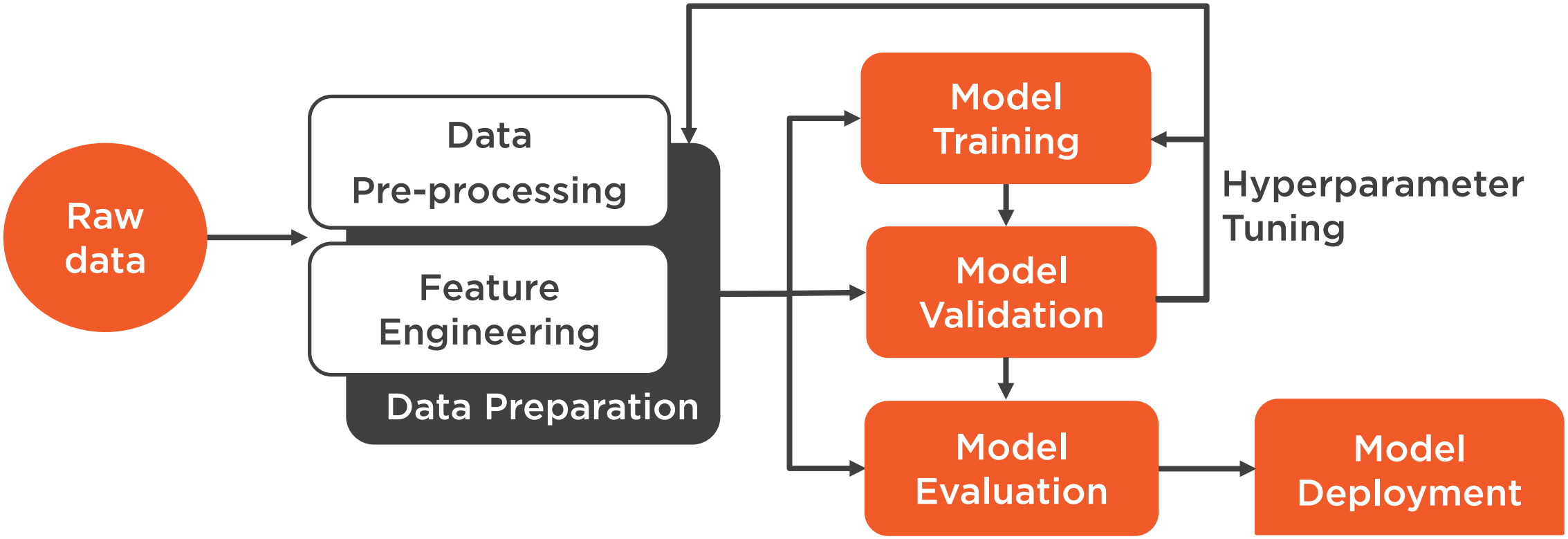
Azure Machine Learning Service

Custom Compute

GPU support available

Azure Machine Learning Experiment Workflow

Azure Machine Learning Experiment Workflow



Prerequisites

Statistical Concepts

Azure

Summary

Machine Learning works

Azure Machine Learning

Data Preparation may not be a glamorous task