

Machine Learning

Lecture 5: Traditional Programming vs Machine Learning Algorithms

Dr.N.Thirupathi Rao
Associate Professor
Department of CSE



01 — ML Introduction

Definition, traditional programming vs machine learning algorithms

02 — Supervised Learning

Learning a system

03 — Unsupervised & reinforcement learning

Radix sort, Counting sort and Bucket sort.



Lecture Overview

Lecture Contents

- Traditional Programming
- Machine Learning
 Algorithms
- Traditional Programming
 Vs Machine Learning
 Algorithms

Lecture Objective

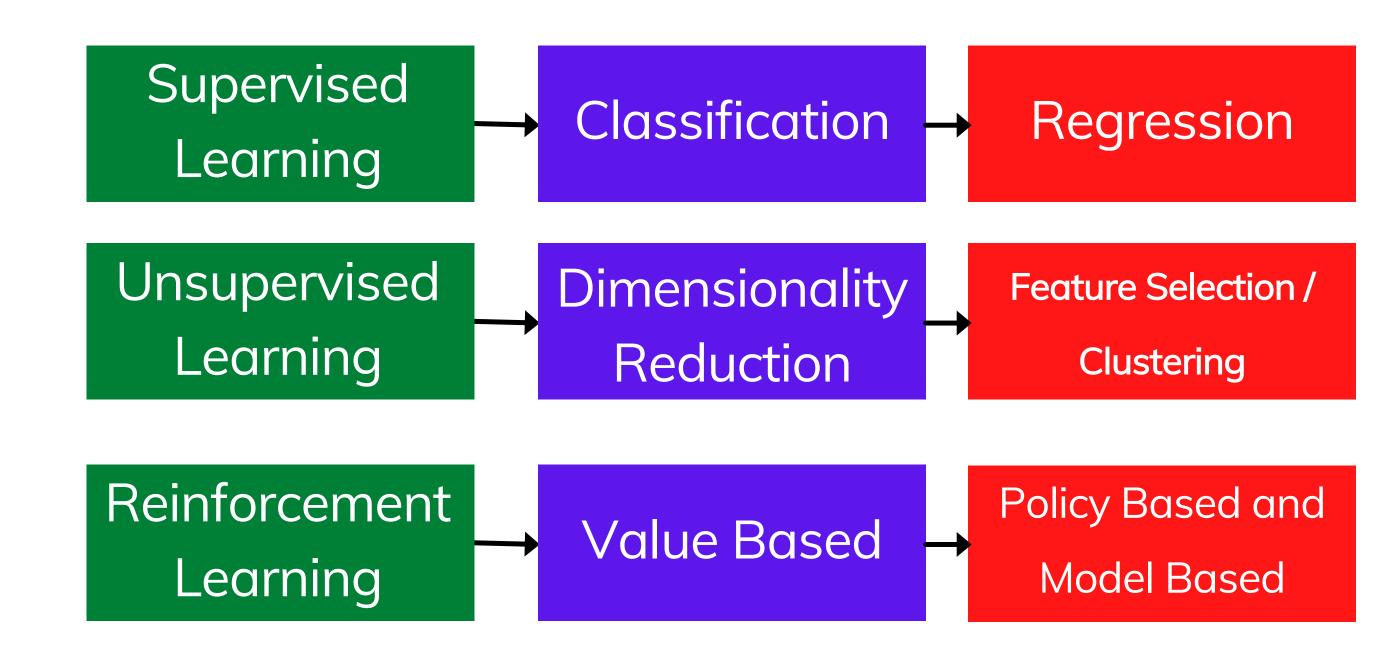
To have a good idea about Traditional programming and Machine Learning Algorithms

Lecture Outcome

Understand and apply the concepts of traditional programming and machine learning algorithms



Machine Learning Types





Traditional Programming Vs Machine Learning Algorithms:

- Traditional computer programming has been around for more than a century, with the first known computer program dating back to the mid 1800s.
- Traditional Programming refers to any manually created program that uses input data and runs on a computer to produce the output.
- In traditional programming you hard code the behavior of the program.
- In machine learning, you leave a lot of that to the machine to learn from data.



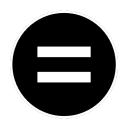
Traditional Programming Vs ML Agorithms

Traditional Programming

Input



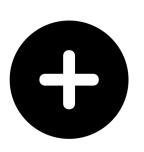
Program



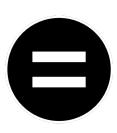
Output

ML Algorithm Models

Input



Output



Program

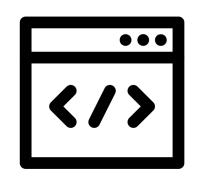


Traditional Programming Approach

Developing an algorithm



o2 Implementing an algorithm



03 Usage

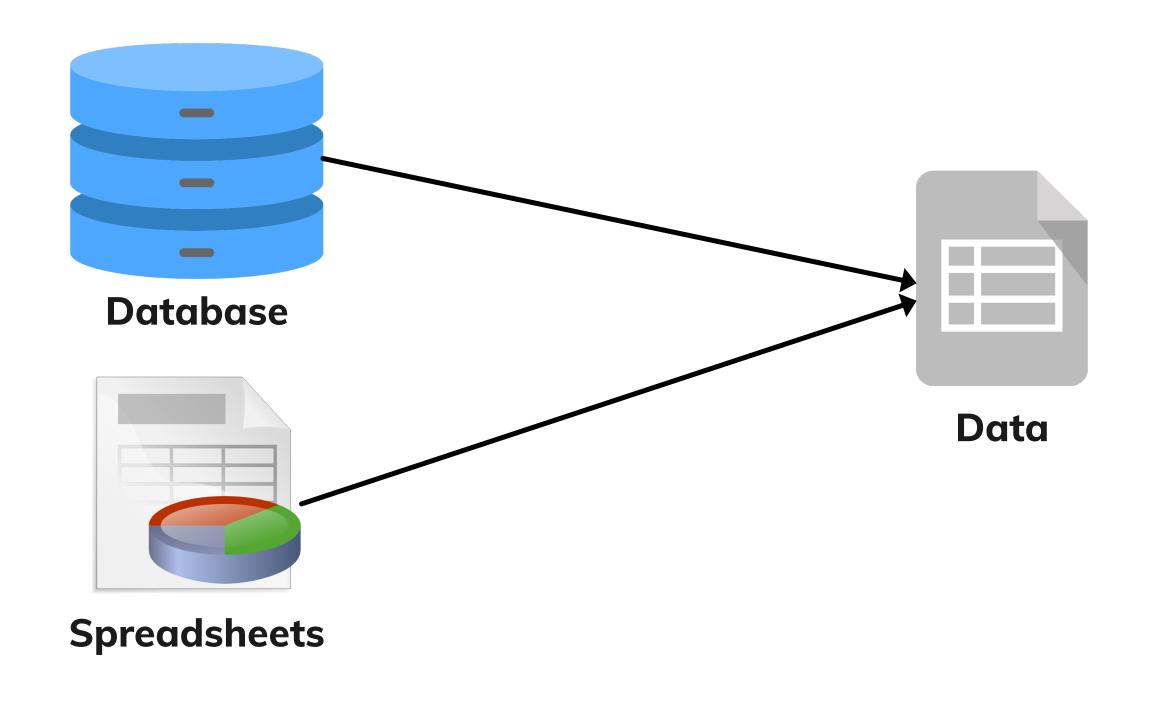
Input Implemented Algorithm

Result



Data engineer developing a solution using machine learning Approach:

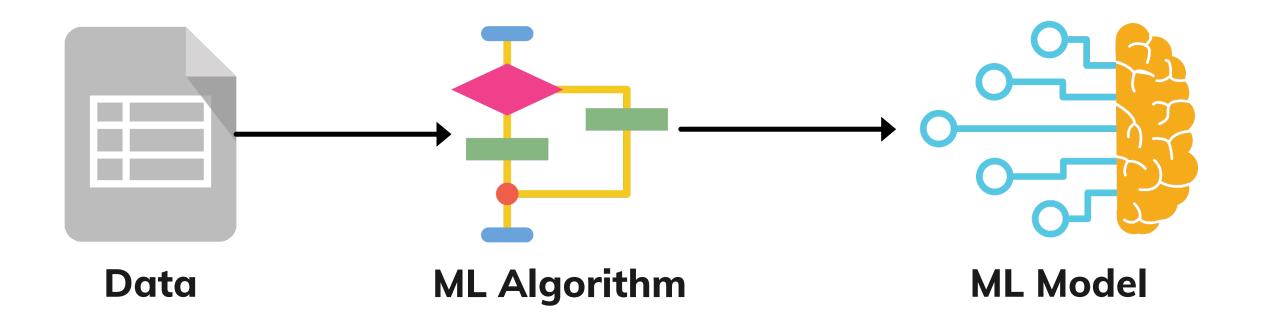
01 Data collecting and preparing





Data engineer developing a solution using machine learning Approach:

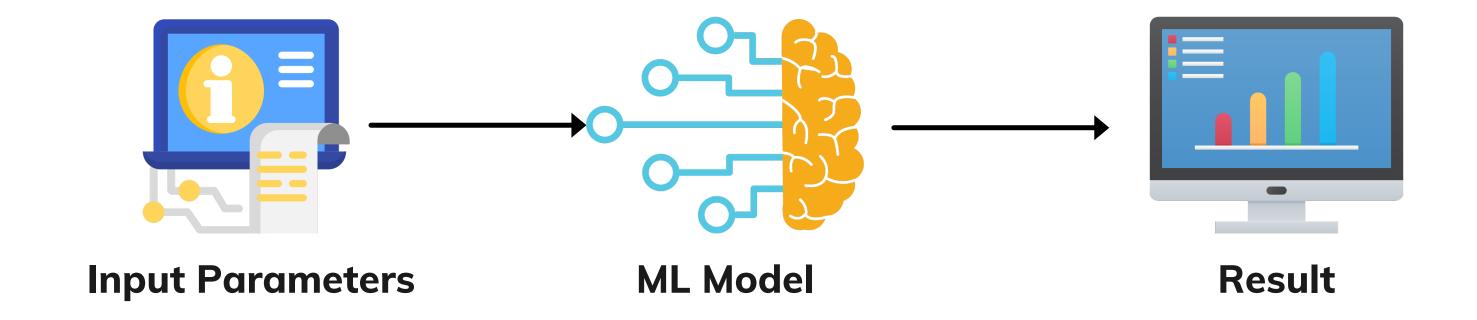
Experimenting with different algorithms





Data engineer developing a solution using machine learning Approach:

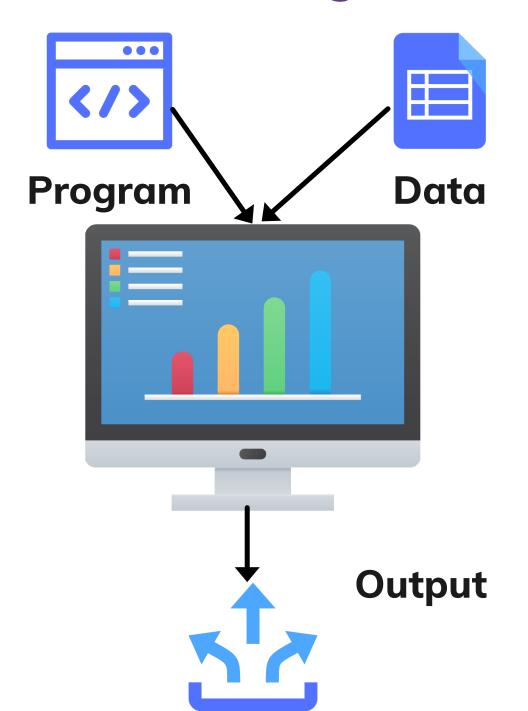
03 Usage





Traditional Programming Vs ML Agorithms

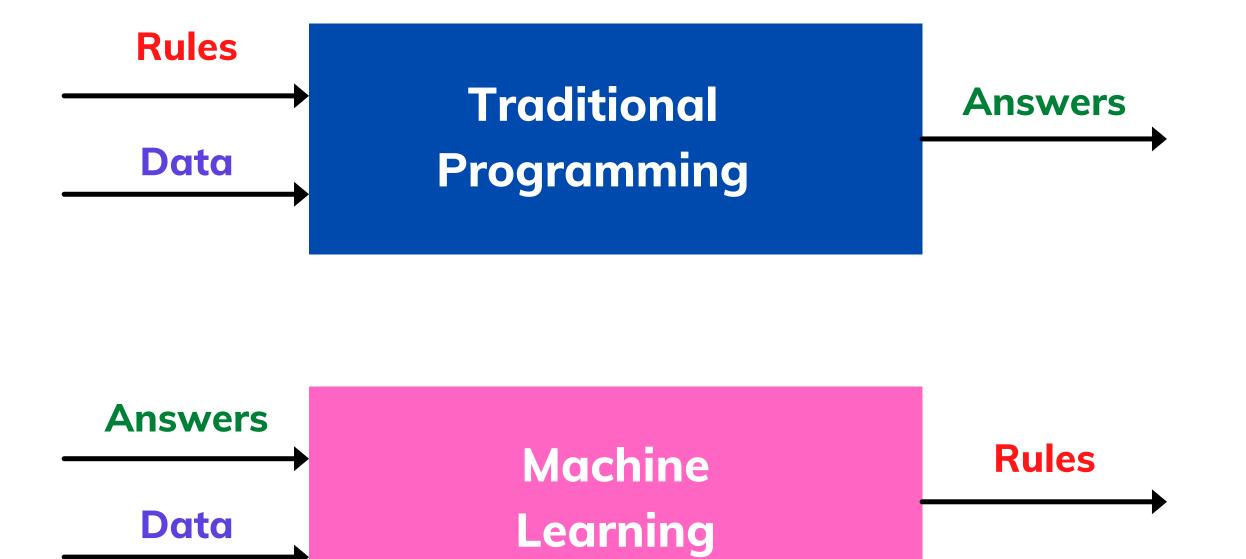
Traditional Programming



Machine Learning Output Data Data **Program**



Traditional Programming Vs ML Agorithms





Thank You!