

# Machine Learning:

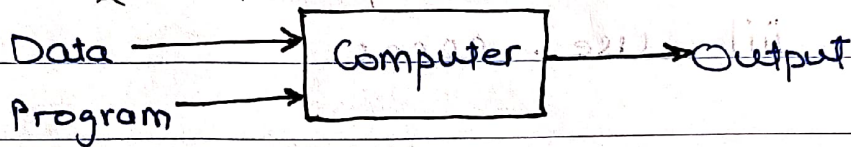
(17 Dec, 24)

# Day 1 → What is ML?

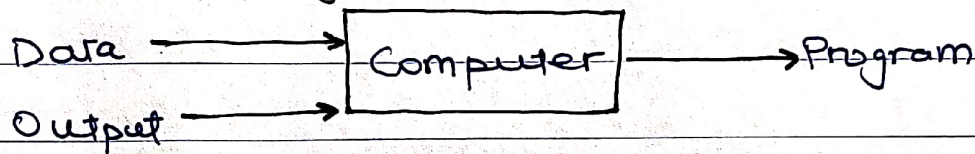
i) ML is a field of CS that use data to give comp's ability to learn with "data" w/o being explicitly programmed.

↳ (writing code for every scenario)

# Traditional approach:



# Machine Learning approach:



# Eg → Adding numbers:

→ Let's say we wrote code to add 2 no's, now in future if we want to add more than 2 no's we will need to modify the code.

→ In ML, we will pass an excel with I/P's and O/P's and our model will understand that we are adding no's. And, it will adapt in future with data automatically.

# When to use ML over traditional?

- i) When you can't write program for all the cases. [e.g. dog image identify]
- ii) When you can't keep changing the logic. [e.g. spam classify]
- iii) For performing data mining (identify hidden patterns)



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(11.02.21)

Machine Learning

## # History of ML

It has existed in industry for a very long time but it recently got popular. This was due to multiple factors:

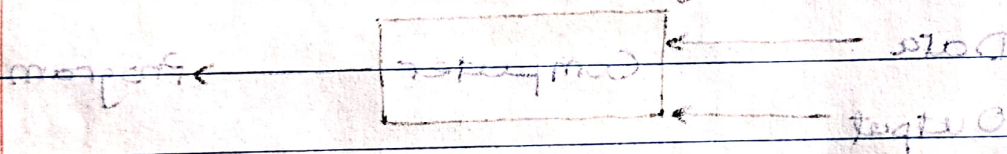
i) requires huge data

ii) requires capable machines

iii) Use cases.

#

Machine Learning Applications



Advantages of Machine Learning

1. It can learn from data without being explicitly programmed.  
2. It can handle large amounts of data.  
3. It can find patterns in data that humans cannot find.  
4. It can make predictions based on data.  
5. It can improve its performance over time.

Disadvantages of Machine Learning

- i) When you don't have enough data, the model will not work well.
- ii) When you don't have enough features, the model will not work well.
- iii) For performing classification tasks, you need to have a good understanding of the data.