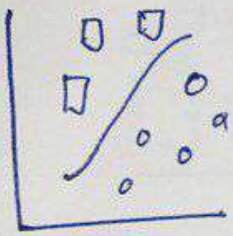
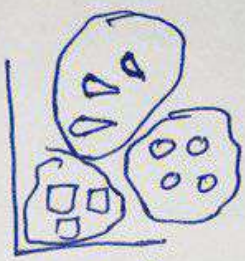
ML

Types of ML → Different ways to train machine learning algos.

- Supervised learning
- Unsupervised learning
- Re-inforcement

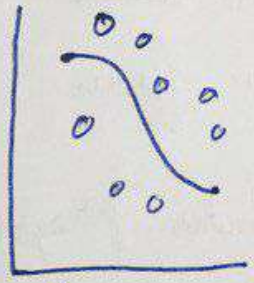


Classification



Clustering

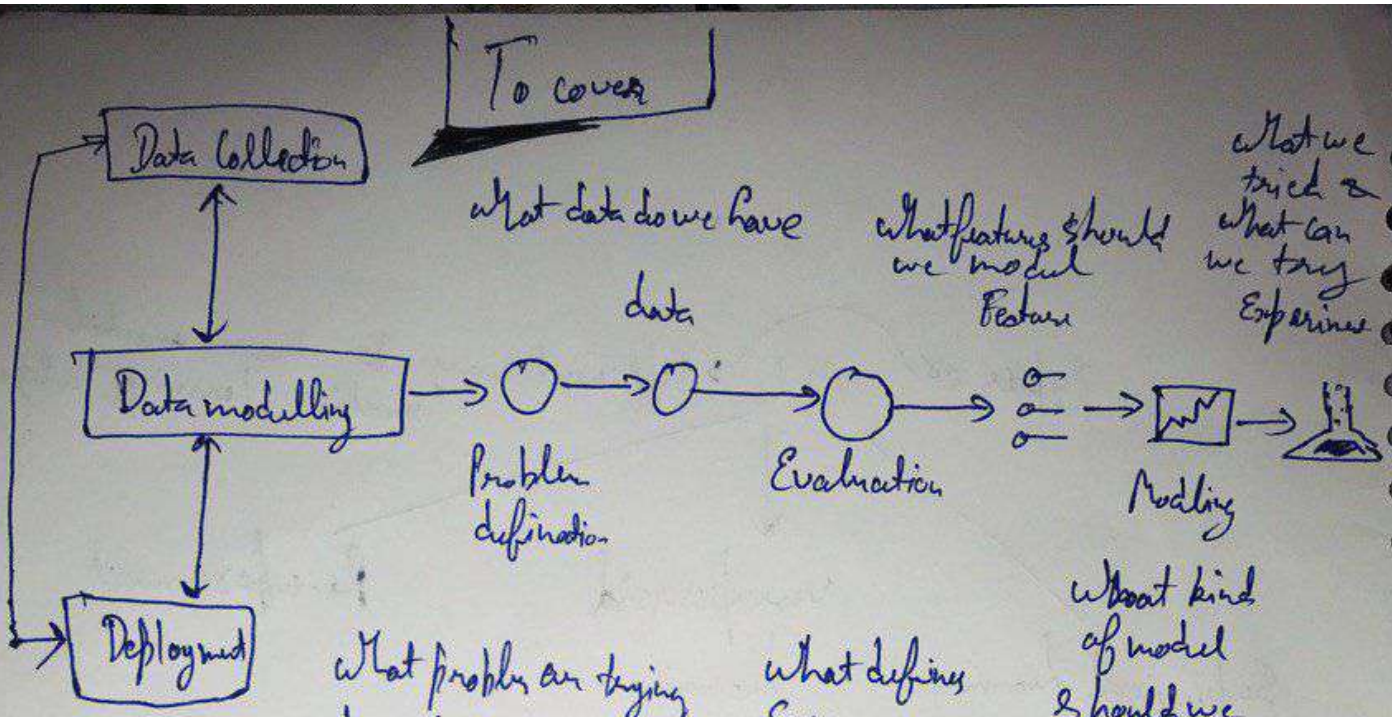
skill acquisition
Real time learning



Regression

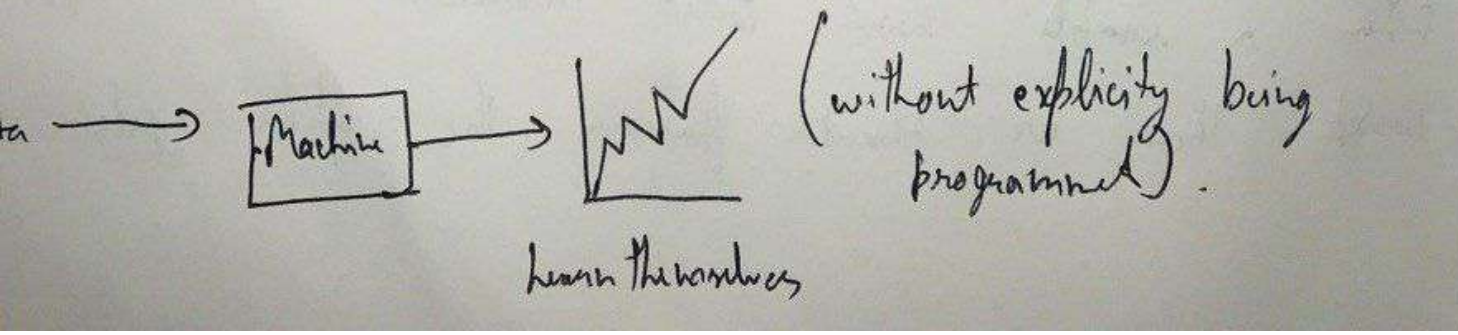
Classification
Rule learning

When a simple hand coded instruction based system work then we should favour the simpler system.



Some important terms:

Machine learning is an application of AI that enables systems to learn and improve from experience without focuses on developing computer programs that can access data and use it to learn for themselves



Artificial Intelligence

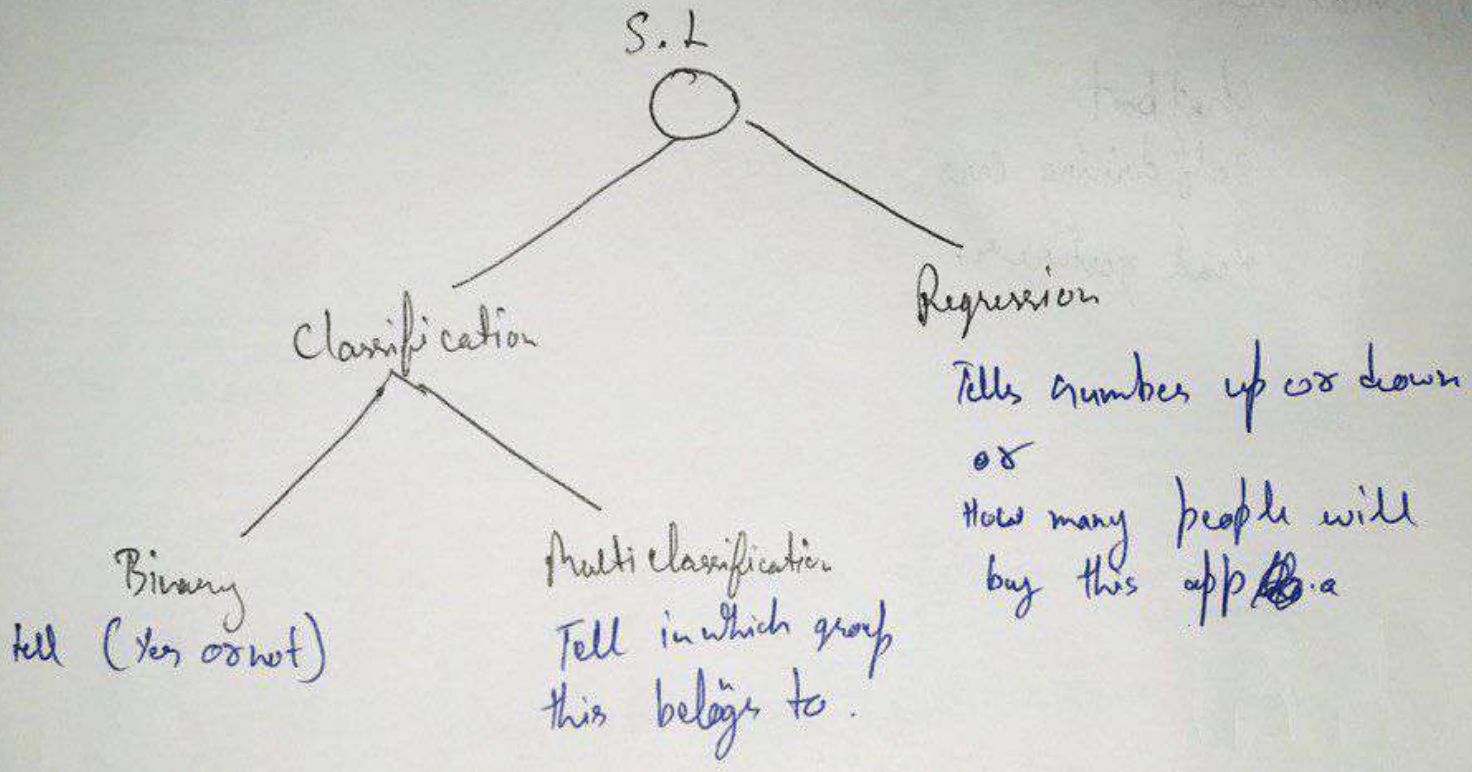
The way in which computer can be made to copy the way human think

Applications -

chatbot
self driving cars
hand gesture.

Supervised learning:

Algorithm repeates process over and over and over again trying to get better.



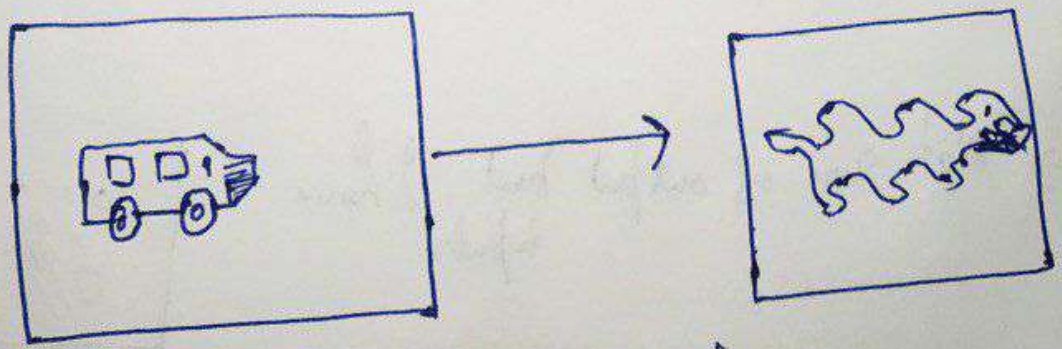
Un supervised learning

Uses machine learning algorithm to analyze and clusters unlabeled datasets.

ex: ~~How many~~ Recommending what music someone should listen to based on their previous music choices.

Transfer learning:

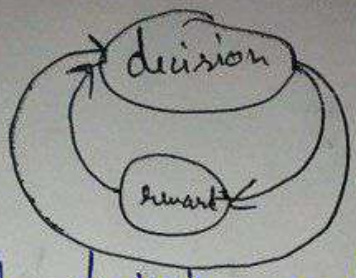
A machine learning method where we use a pretrained model as the starting point for a model on a new task

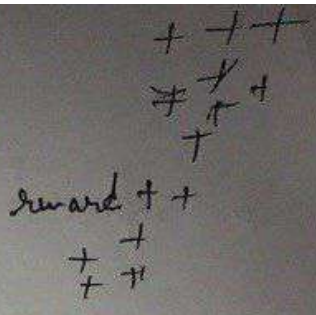


So we use different cars pics to train machine that has a diff. car pattern looks like

→ We are using same problem in case of dogs that how diff. dogs looks like.

Reinforcement learning

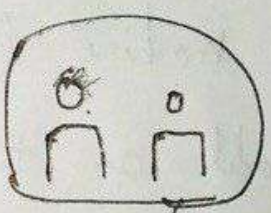




Machine learning method of decision making in order to ~~maxim~~ maximize reward

like if we are playing chess and we have to maximize our score by making decision then we can do it by re-inforcement learning)

Supervised learning → "I know my input and outputs



takes or not

Unsupervised learning → Not sure of output but I have inputs

3.5.1

Transfer Learning — I think my problem may be similar to something else

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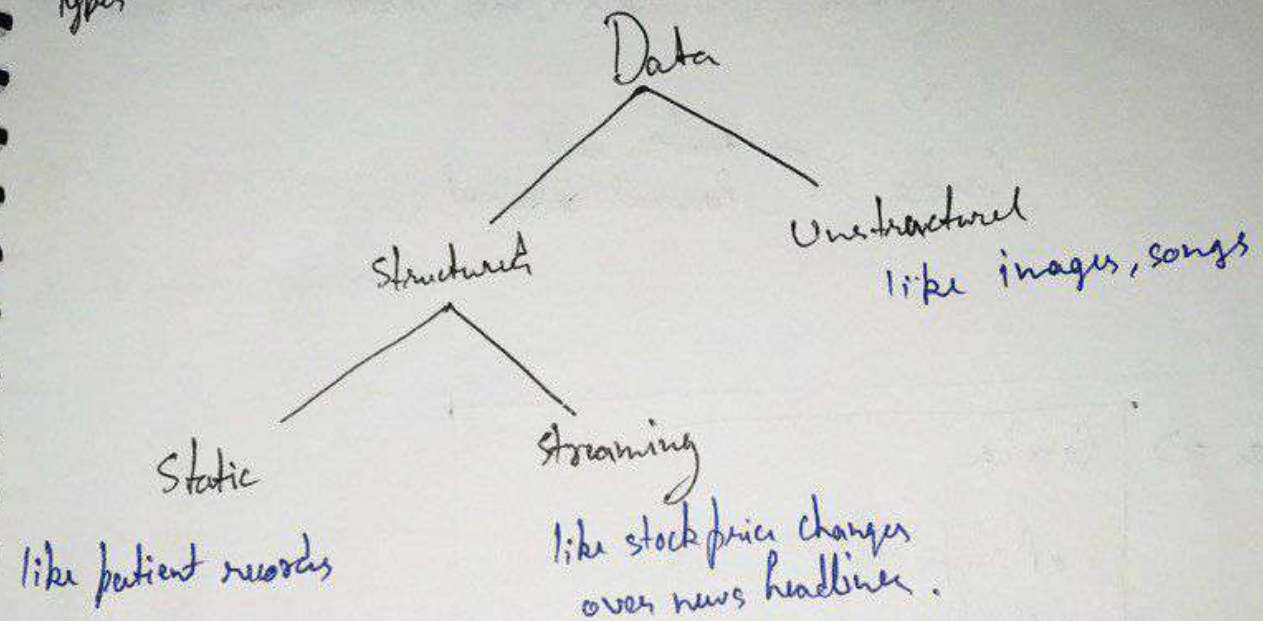
Types



3.6

Evaluation

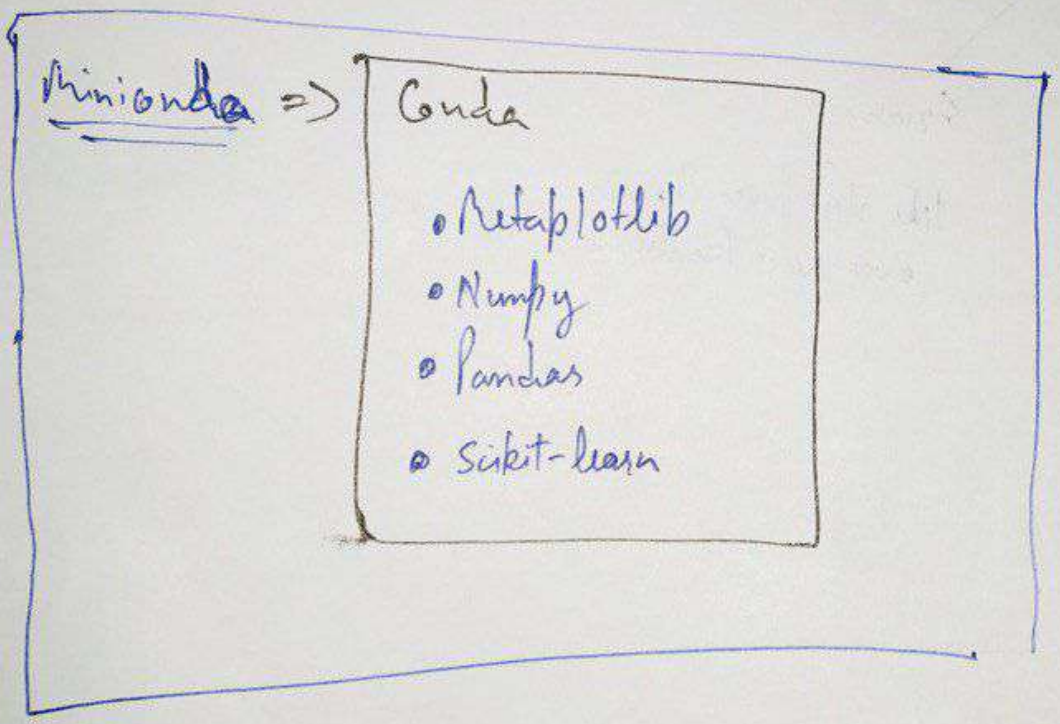
My Computer => Anaconda → Act as store

Anaconda

Miniconda → Act as workbench (It takes less space then Anaconda)

Miniconda

Conda → ~~Tools~~ ~~with~~ Personal assistant



Command to setup environment of miniconda (download miniconda first)

On miniconda terminal enter

Conda create (--prefix) ./env pandas numpy matplotlib scikit-learn.

--prefix → For entering multiple arguments in command

pandas → lib1, numpy → lib2

./env → To create folder in working dir. with name env

Activate conda by given command in given folder environment

Conda activate {Path _____ }

~~• Conda~~

Install Jupyter notebook which we forget in prev. command

• Conda install Jupyter.

Load Jupyter by command

• Jupyter notebook

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On Jupyter notebook

```
import pandas as pd
import matplotlib.pyplot as plt
df = pd.read_csv("heart-disease.csv")
```

[This reads the data of heart disease info for patients.

```
df.head(10)
```

[shows data of first 10 rows]

```
df.target.value_count().plot(kind="bar")
```

[This will take value of target from data and count its value and further shows us by plotting in bar graph

How to print image

`![ ](" ")`

name of image

☆(On markdown)
hit shift+enter