Introduction To AI, Machine Learning, and Data Science.

I. *What is Artificial Intelligence (AI) ?*

- Artificial intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems.

II. *What is Data Science ?*

- Data science is an inter-disciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from many structural and unstructured data.
- Data science is about understanding the business, and the data created by it, or analyzing it, and finding some actionable insights , so that certain business problems treatment can be solved, or certain existing business processes can be improved.

III. *What is Deep Learning ?*

- Deep learning is an artificial intelligence function that imitates the workings of the human brain in processing data and creating patterns for use in decision making. the deep learning algorithm would perform a task repeatedly, each time tweaking it a little to improve the outcome. We refer to 'deep learning' because the neural networks have various (deep) layers that enable learning.

IV. *What is Natural Language Processing ?*

- Natural language processing (NLP) is the ability of a computer program to understand human language as it is spoken. NLP is a component of artificial intelligence (AI).

Back in 2000 , People Magazine [PUBLISHER] highlighted Prince Williams' [PERSON] style who at the time was a little more fashion-conscious , even making fashion statements at times .

Now-a-days the prince mainly wears navy [COLOR] suits [ITEM] (sometimes double-breasted [DESIGN]), light blue [COLOR] button-ups [ITEM] with classic [LOOK] pointed [DESIGN] collars [PART] , and burgundy [COLOR] ties [ITEM] .

But who knows what the future holds ...

Duchess Kate [PERSON] did wear an Alexander McQueen [BRAND] dress [ITEM] to the wedding [OCCASION] in the fall of 2017 [SEASON] .
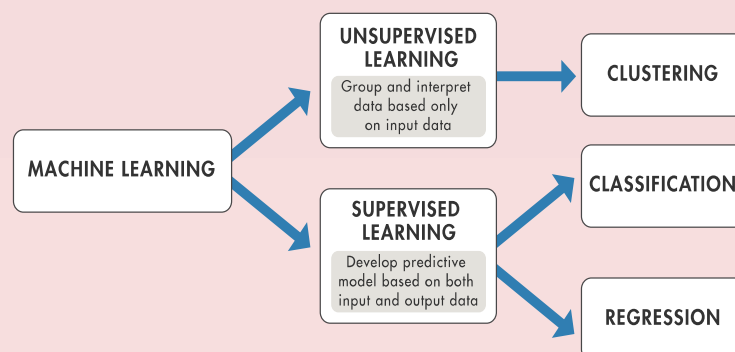
V. What is Computer Vision ?

    - Computer vision is a field of computer science that works on enabling computers to see, identify and process images in the same way that human vision does, and then provide appropriate output. It is like imparting human intelligence and instincts to a computer. In reality though, it is a difficult task to enable computers to recognize images of different objects.
Computer vision is closely linked with artificial intelligence, as the computer must interpret what it sees, and then perform appropriate analysis or act accordingly.
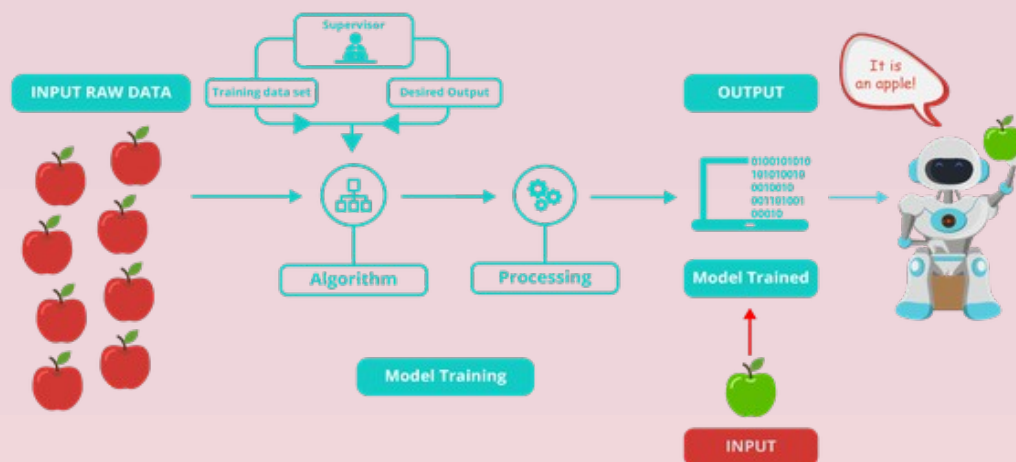

VI. What is Machine Learning ?

    - Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access data and use it learn for themselves.

VII. What is Supervised Learning :

   - Supervised learning as the name indicates the presence of a supervisor as a teacher. Basically supervised learning is a learning in which we teach or train the machine using data which is well labeled that means some data is already tagged with the correct answer. After that, the machine is provided with a new set of examples(data) so that supervised learning algorithm analyses the training data(set of training examples) and produces a correct outcome from labeled data.

VIII. What is Unsupervised Learning ?

   - Unsupervised learning is the training of machine using information that is neither classified nor labeled and allowing the algorithm to act on that information without guidance. Here the task of machine is to group unsorted information according to similarities, patterns and differences without any prior training of data.