Interview Preparation

For Data Scientist

By

Make In India

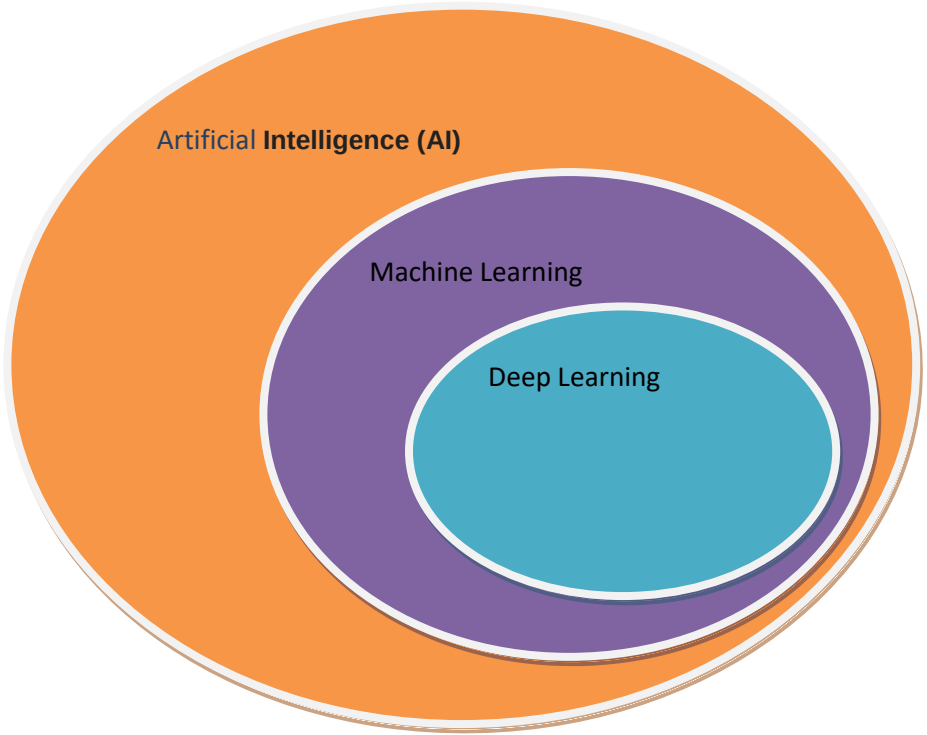
Day 1

Q1. What is Data Science , Artificial Intelligence ,Machine Learning , Deep Learning ?

Ans. Artificial Intelligence: is also called machine intelligence . AI is purely a math and scientific exercise. Where it will resolve the problem of the Human Being. As the AI has changed the computational way to a modern way. There are two types of AI

1. General AI
2. Applied AI

Data Science : Data Science is field where we use the Scientific method , Processes , algorithms and system to extract knowledge using Various tools to get insight from structured and unstructured data.



Machine Learning : Machine Learning is defined as the Machine Learns with the help of the Data not on the bases of the explicitly Programmed . Machine Learning is a form of AI where based on more data, and they can change actions and response, which will make more efficient, adaptable and scalable. e.g., navigation apps and recommendation engines. Classified into:-

1. Supervised
2. Unsupervised
3. Reinforcement learning

Deep Learning : Deep Learning is also Known as the Deep structured Learning . Deep Learning is Based on the concept of the Brain where the Neural Network is responsible for all the Process. The neural network performs MICRO calculations with computational on many layers. Neural networks also support weighting data for 'confidence. These results in a probabilistic system, vs. deterministic, and can handle tasks that we think of as requiring more 'human-like' judgment.

Q2. What is Supervised Learning , Unsupervised Learn and Reinforcement Learning Data ?

Ans. Supervised learning: In a supervised learning model, the algorithm learns on a labeled dataset, to generate reasonable predictions for the response to new data. (Forecasting outcome of new data)

- Regression
- Classification

Unsupervised learning

An unsupervised model, in contrast, provides unlabelled data that the algorithm tries to make sense of by extracting features, co-occurrence and underlying patterns on its own. We use unsupervised learning for

• Clustering

• Anomaly detection

• Association

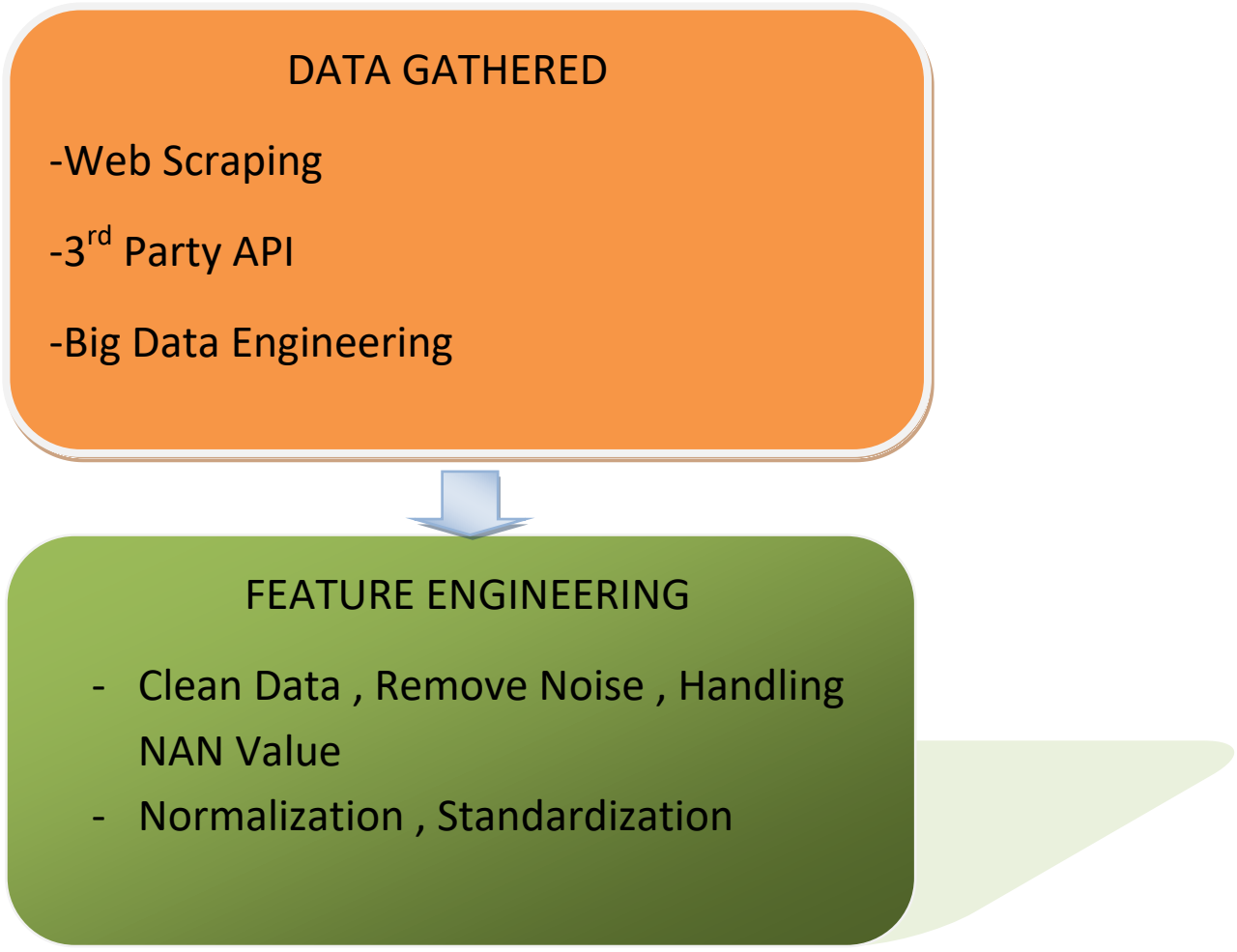
• Autoencoders

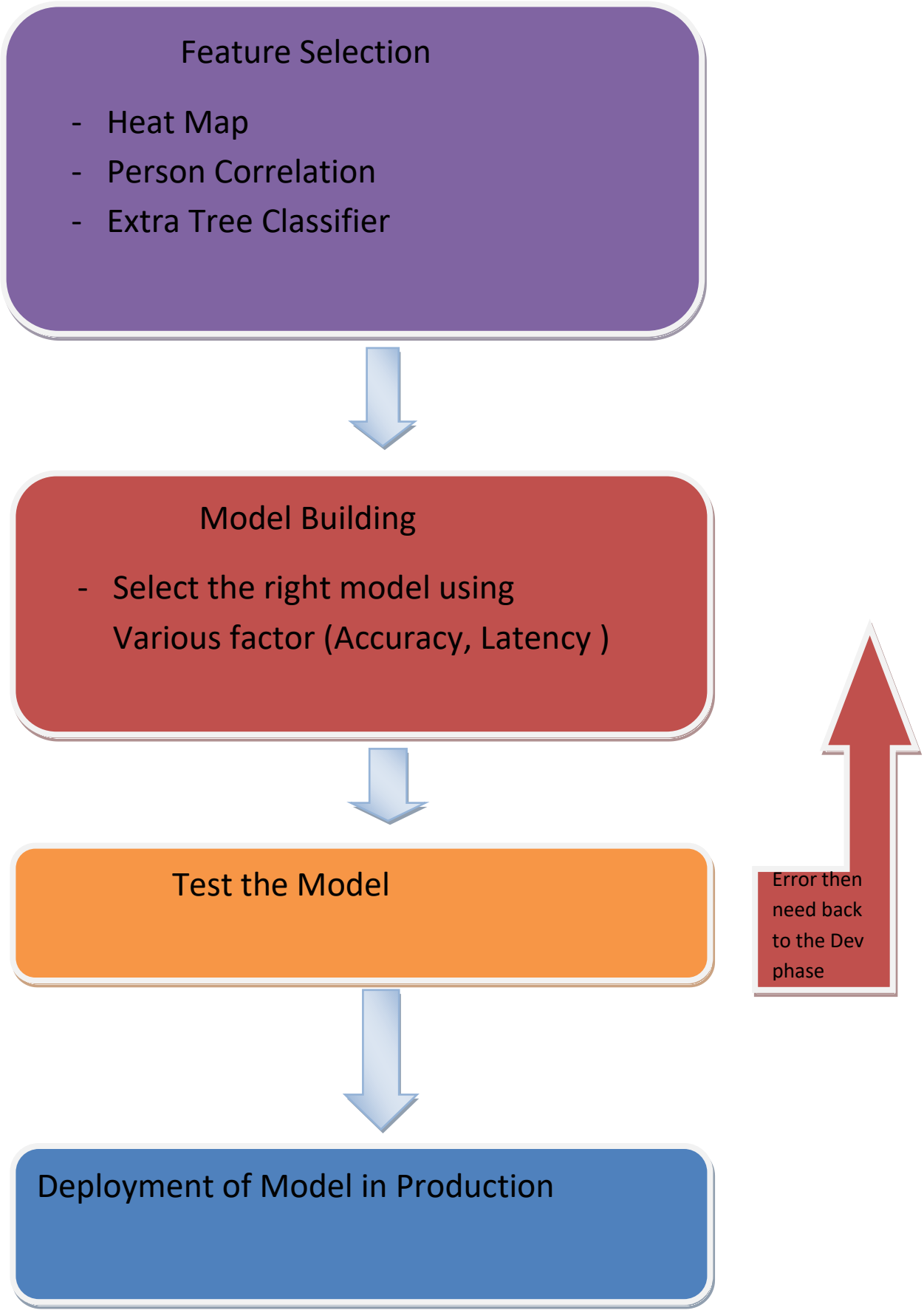
Reinforcement Learning

Reinforcement learning is less supervised and depends on the learning agent in determining the output solutions by arriving at different possible ways to achieve the best possible solution.

Q. What is DataScience Life cycle ?

Ans.




Feature Selection
- Heat Map
- Person Correlation
- Extra Tree Classifier
Model Building
- Select the right model using Various factor (Accuracy, Latency)
Test the Model
Error then need back to the Dev phase
Deployment of Model in Production