Machine Learning and Data Science Interview questions With Answers Q3 and Q 4

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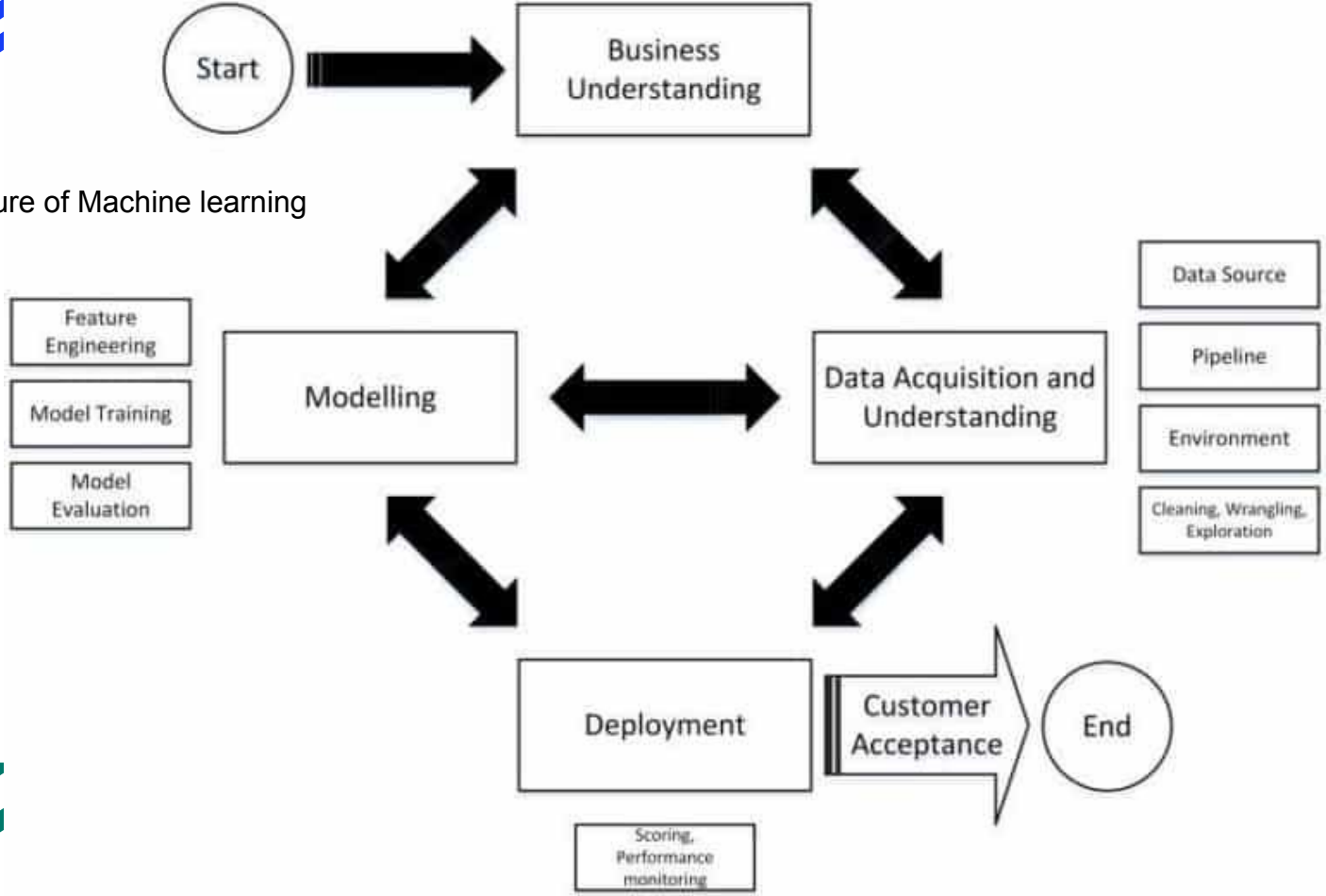
Question 1:

Describe the general architecture of Machine learning
Source: https://ineuron.ai/



Business understanding: Understand the give use case, and also, it's good to know more about the domain for which the use cases are built.

Data Acquisition and Understanding: Data gathering from different sources and understanding the data. Cleaning the data, handling the missing data if any, data wrangling, and EDA(Exploratory data analysis)

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Modeling: *Feature engineering* – scaling the data, feature selection – not all features are important. We use the backward elimination method, correlation factors, PCA and domain knowledge to select the features.
Model Training based on trial and error method or by experience, we select the algorithm and train with the selected features.
Model evaluation Accuracy of the model, confusion matrix and cross-validation.
If accuracy is not high, to achieve higher accuracy, we tune the model…either by changing the algorithm used or by feature selection or by gathering more data, etc.

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Deployment – Once the model has good accuracy, we deploy the model either in the cloud or Rasberry py or any other place. Once we deploy, we monitor the performance of the model.if its good…we go live with the model or reiterate the all process until our model performance is good.

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Q2. What is Linear Regression?

A linear regression line has an equation of the form Y = aX + b, where X is the explanatory variable and Y is the dependent variable. The slope of the line is b, and a is the intercept (the value of y when x = 0).

Linear Regression tends to establish a relationship between a dependent variable(Y) and one or more independent variable(X) by finding the best fit of the straight line.

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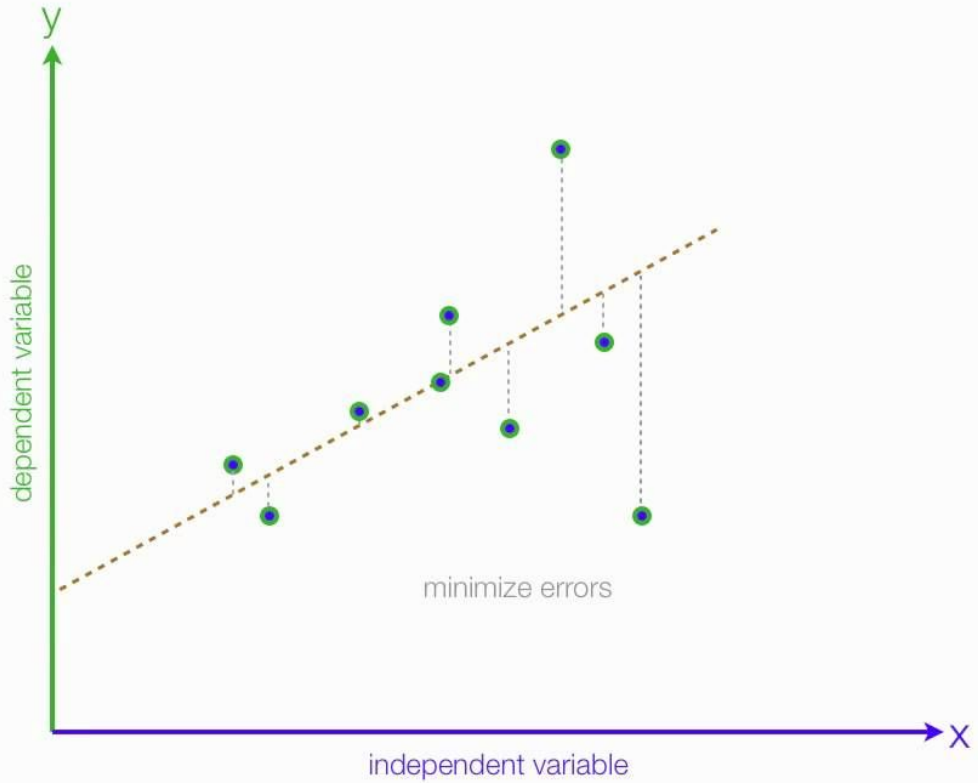

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Thanks For Watching

See You Soon

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