**What is a Methodology?**

it is a system of methods used in a particular area of study.

# Steps involved in Data Science Methodology -

1. Business Understanding - what is the problem you are trying to solve?
2. Analytic Approach - How can you use data to answer the question?
   1. if the probability of action is to be defined then the predictive model is used.
   2. if the question is to show relationships then a descriptive approach is deployed.
   3. if the counting of something is required then statistical analysis is applied.
   4. if a question requires a yes or no answer then a classification approach can be applied.
   5. if human behaviour is to be analyzed then clustering association approach is used.
3. Data Requirement - what are data requirements?
4. Data Collection - what occurs during data collection?
5. Data Understanding - all activities involved in constructing dataset like clean and prepare.
6. Data Preparation - Feature Engineering is part of data preparation.
7. Modelling - in what way the data can be visualized to get the answer
8. Evaluation - does the model answered correctly or it needs to be adjusted
9. Deployment - deploying to production
10. Feedback - consumer feedback.