Data Science:

Simply data science means collection of data through which a human or a machine can predict, can make decisions and have the ability of solving real world business problems but the data that is collected should be complete because incomplete data can lead to major problems.

Data Science has mainly three parts:

- 1. Collection of data
- 2. Analyzing of data
- 3. Insight of data in order to solve business problems

In past when internet was newly introduced so at that time the data was to small so a few people were needed for the analyzing of data but now data is too much big and have become big data so now machines, robots and software's are also used for the analyzing of data.

Data Science Is basically a full tree and its roots are:

- 1. Artificial Intelligence
- 2. Machine learning
- 3. Deep learning

Now a day's data science is widely used by many big companies and many famous companies have also invested in it for example Tesla. Tesla is now a days working on self-driving car. Another example can be the Netflix which takes the data from you and recommends you a movie according to the movie you previously watched.

Now the question is that how we can learn data science??

So there are 5 steps:

- 1. Learning a programming language
 - a. Python(pandas and numpy library)
 - b. R
- 2. Learning statistics (mean median mode standard deviation etc.)
- 3. Data visualization (graphs charts and tables) (matplotlib python library)
- 4. Machine learning

5. After learning all 4 we have to do a project in order to know that what we have learned.

Data science can also give answers to the questions:

Suppose you want to buy a product let's say you want to buy a dress for yourself now what would you do.

- 1. You will search for those shops that sell the dress
- 2. Than after searching for the shops you will choose that shop that is a brand or famous now a days
- 3. After that you will search that which shop is providing u a discount.

So basically it is a tree that is answering to your questions according to the data that you provide to them.