8 Basic Concepts of Statistics

Statistics is basically the mathematical analysis that uses quantified models and representation for a given set of experimental data or real-time case studies.

Through statistical analysis, information can be presented in an easy way.

Types of statistical concepts:

1. Understanding Different Types of Analytics
   // kind of analysis for different purposes.

2. Probability
   // It is the chances of an event that can occur.

3. Central Tendency
   // Mean, Median, Mode, Skewness, Kurtosis.

4. Variability
   // Difference between the highest and lowest value in the data set.

5. Relationship between Variables
   // Casuality, Covariance, Correlation.

6. Probability Distributions
   // Mass Function, Density Function, Cumulative Density Function.

7. Hypothesis testing and Statistical Significance

// Statistical hypothesis testing are used to determine whether the data is statistically significant.

8. Regression

// It helps in predicting or explaining the variation in one variable based on another variable.

Explanation:

● Understanding Different Types of Analytics >>

Different types of analytics approaches are used to analyze the data depending on the different scenarios.
There are 4 kinds of analytics:

1. Descriptive Analytics
// This tells us what has already happened in the past and how it is currently performing in the present which helps business to grow by interpreting that information and making decisions accordingly.

2. Diagnostic Analytics
// In this we focus on the cause: Why did it happen? And find out the answer based on content or data, It uses techniques like Drill Down (ONE OF OLAP OPERATIONS), Data Discovery, Data Mining, and Correlation.

3. Predictive Analytics

// Predictive analytics used the predict what can happen in the future to form new ideas and approaches in business strategies, Suppose you have some kind of report that is likely to happen in the future then you will definitely make your move according to that. This can also be helpful in identifying the good or bad things that can happen in the future and prevent from that.

Applications of Predictive Analysis:
- **Healthcare**
- **Manufacturing**
- **Finance**
- **Insurance**
- **Saas** *//Software as a Service*

4. Prescriptive Analytics

// Prescriptive Analytics is used to recommend the best action to be taken based on all the facts and figures, It is used for the next step or decision making.

Examples of Prescriptive Analytics

Venture Capital	Sales
Content Curation	Banking
Product Management	Marketing