# WHAT JUST HAPPENED



An Explorer's Guide to Data Descriptive Statistics

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### **Preface**

The book is intended to give you a comprehensive understanding of Descriptive Statistics and help you figure out "What just Happened?" through your data.

At the end of this book, you should be able to put on your explorer's hat and articulate some of the basic findings through data.

The book is designed in a student-friendly manner and explains the core concepts and terminologies using real-world examples. The book contains 17 practice problems, 2 quizzes, 36 graphical representations and numerous examples to enable effective learning and understanding of the concepts.

Complimentary chapters included – Types of data, Normal distribution and data visualization for a holistic view of the Descriptive Statistics.

Keep on Learning!



# **Contents, Disclaimer and Rights**

The book cover has been designed by the author. The examples have been created using dummy data and the graphical and image representation in the book has been illustrated by the author.

This book is not a piece of research and is intended to explain the established concepts of statistics in a simple manner.

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# Acknowledgments

I am extremely thankful and grateful to my parents, sibling and spouse for their constant encouragement and indispensable advice for the improvement of the content to shape it out in its present form.



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## 1. Descriptive Statistics

Descriptive Statistics is the simplest group of analyses that helps you transform nuggets of data into meaningful insights. Most of the data is processed for Descriptive Statistics as an initial step. It forms the basis for every research and analysis.

Once the researcher is aware of the basic nuances and inherent characteristics of data, the second step of Design and Statistical Models becomes an easy and logical way forward.

The area of Descriptive Statistics works on summarizing the data based on describing the distribution of values (frequency, percent, cumulative percent), finding the central point of the data distribution (Measures of Central Tendency, Central Moments), understanding the data spread around the central value (Measures of Dispersion), calculating the location of the data values (Measures of Position),

comprehending the interdependence of variable quantities (Measures of Association), measuring the asymmetry in the data distribution with respect to Normal Distribution (Measure of Symmetry) and visually representing the data for driving impactful and engaging conversations.

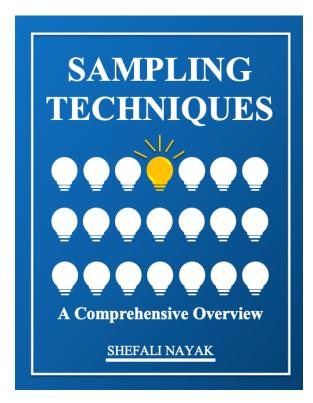
### 2. What is Data?

Data is a set of facts and statistics collected together for reference or analysis. It can be either numerical or descriptive in nature. The data can further be classified as Structured or Unstructured.



What is Data?

### Other books by the author





### **Sampling Techniques**

The book is intended to give you a comprehensive understanding of the Sampling Techniques. At the end of this book, you should be able to define the data collection process and choose the sampling technique that works best for your data.

Complimentary chapters – Types of data collection and Probability for a holistic view of the Sampling Techniques.

### **Big Data Analytics**

The book is designed to walk you through the various stages of a data analytics project, concepts and possible avenues when dealing with huge and overwhelming amounts of structured and unstructured data. It is crisp and concise roadmap on a Big Data project. Complimentary chapters included – Description on the various AI/ML Models, data visualizations and storyboarding techniques to empower you make relevant decisions related to the analytics approach.

### Follow the author



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