Week 1: Basic Statistics

(Total video duration is nearly 2 hours 50 mins. You will be required to spend 55 - 60 minutes/day along with practicing datasets and quizzes)

"It is essential for professionals to carry out data analysis and interpretation for effective decisions. In this context, they need to prepare quantitative arguments to justify their decisions. Decision making using statistical methods is the answer for accomplishing this purpose".

Learning Outcomes from Week-1:

Statistical Outline, Why Statistics and Big Data

Statistical Methods

Descriptive Statistics - Outline

Data Visualizations

Great Learning

Mentor Session Duration: 2 hours	Faculty Name: Dr. Abhinanda Sarkar	No. of videos: 20
S.no	**Video Name**	**Duration of the video(min)**	**Conceptual or Hands On**
1.1	Outline - Statistical Learning Overview	01:56	Conceptual
1.2	Why Statistics and Big data	09:32	Conceptual
1.3	Statistics - Methods	07:49	Conceptual
1.4	Classical definition and types of statistics	03:43	Conceptual
1.5	Some Vital terms in statistics	12:06	Conceptual
1.6	Sources and Types of data, Data sets	10:43	Conceptual

Great Learning

Mentor Session Duration: 2 hours	Faculty Name: Dr. Abhinanda Sarkar		No. of videos: 20
S.no	Video Name	Duration of the video(min)	Conceptual or Hands On
1.7	Data Objects, Attributes and Attribute types	10:54	Conceptual
1.8	Let's have a Summary!	01:34	Conceptual
1.9	Data and Histogram	08:41	Conceptual
1.10	Outline - Descriptive statistics	01:23	Conceptual
1.11	Central Tendency and 3 Ms	2:51	Conceptual
1.12	Measures of Dispersion, Range, IQR	05:48	Conceptual
1.13	Standard Deviation	09:29	Conceptual
1.14	Coefficient of Variation	04:01	Conceptual
1.15	The Empirical Rule and Chebyshev Rule	06:24	Conceptual

G Great Learning

Mentor Session Duration: 2 hours	Faculty Name: Dr. Abhinanda Sarkar		No. of videos: 20
S.no	Video Name	Duration of the video(min)	Conceptual or Hands On
1.16	Five Number Summary, Boxplot and other plots	14:31	Conceptual
1.17	Data Visualizations	02:05	Conceptual
1.18	Correlation Analysis	09:12	Conceptual
1.19	Summary - Descriptive statistics	01:17	Conceptual
1.20	Case Study: Cardio Good Fitness	41:40	Conceptual + Hands-On

Few textbooks that you can refer to:

The Elements of Statistical Learning

Think Stats

https://onlinestatbook.com/2/probability/basic.html

https://seeing-theory.brown.edu/index.html#4thPage