SESSION 2: GETTING STARTED WITH STATISTICS

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Assignment 2

Data Analytics

Data Analytics

**1. Introduction**

This assignment will help you understand the concepts learnt in the session.

**2. Objective**

This assignment will test your skills on the concepts of statistics.

**3. Prerequisites**

Not applicable.

**4. Associated Data Files**

Not applicable.

**5. Problem Statement**

**1. If the scores for a given sample distribution are:**

**32 32 35 36 37 38 38 39 39 39 40 40 42 45**

**Find the Variance and The Standard Deviation**

**Step by Step Calculation:**

**Input: 32, 32, 35, 36, 37, 38, 38, 39, 39, 39, 40, 40, 42, 45**

**Mean = (32 + 32 + 35 + 36 + 37 + 38 + 38 + 39 + 39 + 39 + 40 + 40 + 42 + 45)/14**

**Mean = 532/14**

**Mean = 38**

**= √( (1/14-1) \* (32-38)2+(32-38)2+(35-38)2+(36-38)2+(37-38)2+(38-38)2+(38-38)2+(39-38)2+(39-38)2+(39-38)2+( 40-38)2+(40-38)2+(42-38)2+(45-38)2)**

**= √( (1/13) \* (-62 + -62 + -32 + -22 + -12 + 02 + 02 + 12 + 12 + 12 + 22 + 22 + 42 + 72)**

**= √( (1/13) \* (36 + 36 + 9 + 4 + 1 + 0 + 0 + 1 + 1 + 1 + 4 + 4 + 16 + 49)**

**= √ 12.4615354081**

**Ans: Standard Deviation σ= 3.53**

**Variance =12.46**

**2. The following table shows percent variations of two financial indices, the NYSE (New York Stock Exchange) and the NASDAQ composite (National Association of Securities Dealers Automated Quotation) in 10 consecutive days:**

**Use a suitable measure to quantify the dependence between the variations of the two indices and comment on the result.**

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**Ans: - The difference between correlation two financial indices.**

**Correlation Co-efficient of 0.83**

**6. Expected Output**

N/A

**7. Approximate Time to Complete Task**