

GROWTH GUIDE DATA ANALYTICS TASK

DATASET - The dataset provides the attribute of women and their incidence of diabetes. Data -

<https://drive.google.com/drive/folders/12ooVL9GIzB8DLoAJrHyrbAdnaDDi6d1k?usp=sharing>

Methods to apply on dataset-

1. Check if all the features are numeric.
2. Given dataset contains many (zero) values, replace 0 with NaN value.
3. Replace NaN with mean, median, mode.
4. Get the correlation matrix of each column,
5. Get the descriptive statistics of each column.
6. Inferential Statistics

a. Normal Deviate Z Test

(Population mean and std is known in this case)

#Get the mean and std value of the population from descriptive stats table.

I am providing a sample dataset, check whether this sample is drawn from population data using the Z test.

Hypothesis

H₀ - Samples are likely drawn from the same distributions.

H₁ - Samples are likely drawn from different distributions.

Using the Z test, check whether the null hypothesis is going to accept or reject.

b. One Sample T- Test.

(Population mean is known but std is unknown)

#Get the mean value of population from descriptive stats table and find the estimated std of population.

I am providing a sample dataset, check whether this sample is drawn from population data using the one paired t-test.

Hypothesis

H₀ - Samples are likely drawn from the same distributions.

H₁ - Samples are likely drawn from different distributions.

Using the One paired t-test, check whether the null hypothesis is going to accept or reject.