**Assignment 01**

**Questions 01 and Answers**

1. List all professions and products in the dataset.A picture containing graphical user interface

   Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Import all the libraries on the top and develop the script to get output for product and profession.

1. Show any problem with the data etc.

Graphical user interface, text, application, email

Description automatically generatedThe main problem in this data set is Wrong data types and N/A, nan values – which mean Null values. The solutions are provided, then transformed into to correct data type also removed Null values from the table.

1. Clean and transform the data into the correct data types.

Graphical user interface, text, application

Description automatically generatedThe abovementioned problem was sorted here.

1. Add a new column “Age Group” and fill up its data according to below criteria.

Text, application

Description automatically generatedhere I am using between and comparison operators to check the age and created the colum for Age group.

1. Rank region by total insurance product.

Graphical user interface, text, application

Description automatically generatedusing the count function to for region and group by the to identify the total insurance product for each Region.

1. Find the mean, median, standard deviation of Age and Contract Sum.

Graphical user interface, text, application, email

Description automatically generatedFinding the summary of Age group and Contract sum in the dataset, which Is showing up mean, median etc.

1. Filter the rows of Age < 25 and Contract Sum between 50k and 100k and insurance type of Health or Life insurance.

Filtering the data with above condition, I used single line comparison to done the filtering.

Graphical user interface

Description automatically generated with medium confidence

1. Find total insurance product by profession.

Graphical user interface, text, application, email

Description automatically generatedFinding product over the profession, by grouping profession and calculate product in the professions.

1. Find correlations between product, profession, and contract sum. What are your conclusions?

The correlation is can only calculate with numerical values, so other variable could not do for the correlation.

Graphical user interface

Description automatically generated with medium confidence

1. Calculate and Visualize products on age group. Describe your findings

Text

Description automatically generated