## G H RAISONI COLLEGE OF ENGINEERING & MANAGEMENT, WAGHOLI, PUNE

**(An Autonomous Institute under UGC Act 1956 & Affiliated to Savitribai Phule Pune University)**

# EXPERIMENT NO. 4

# Perform simple Linear Regression using Data Analysis Toolbox of Excel or with python and interpret the regression table.

# AIM OF EXPERIMENT: Perform simple Linear Regression using Data Analysis Toolbox of Excel or with python and interpret the regression table.

**Date of Performance:** 19/03/2020 **Sign of Teacher:**

**Name: Swayam Terode Roll No. : C70**

**Division: C**

# AIM: Perform simple Linear Regression using Data Analysis Toolbox of Excel or with python and interpret the regression

# Table.

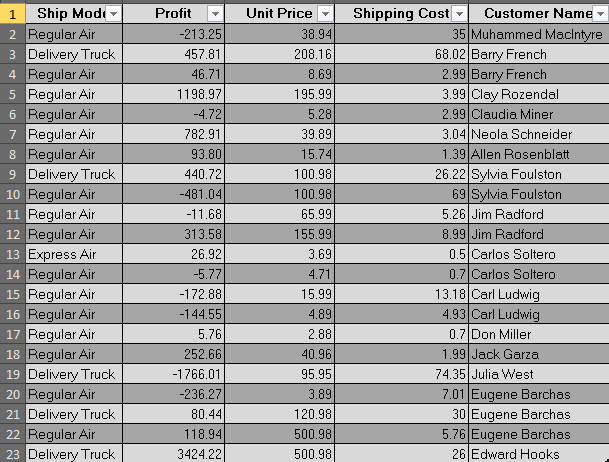
# What is Linear Regression?

# Linear regression is a linear model, e.g. a model that assumes a linear relationship between the input variables (x) and the single output variable (y). More specifically, that y can be calculated from a linear combination of the input variables (x).

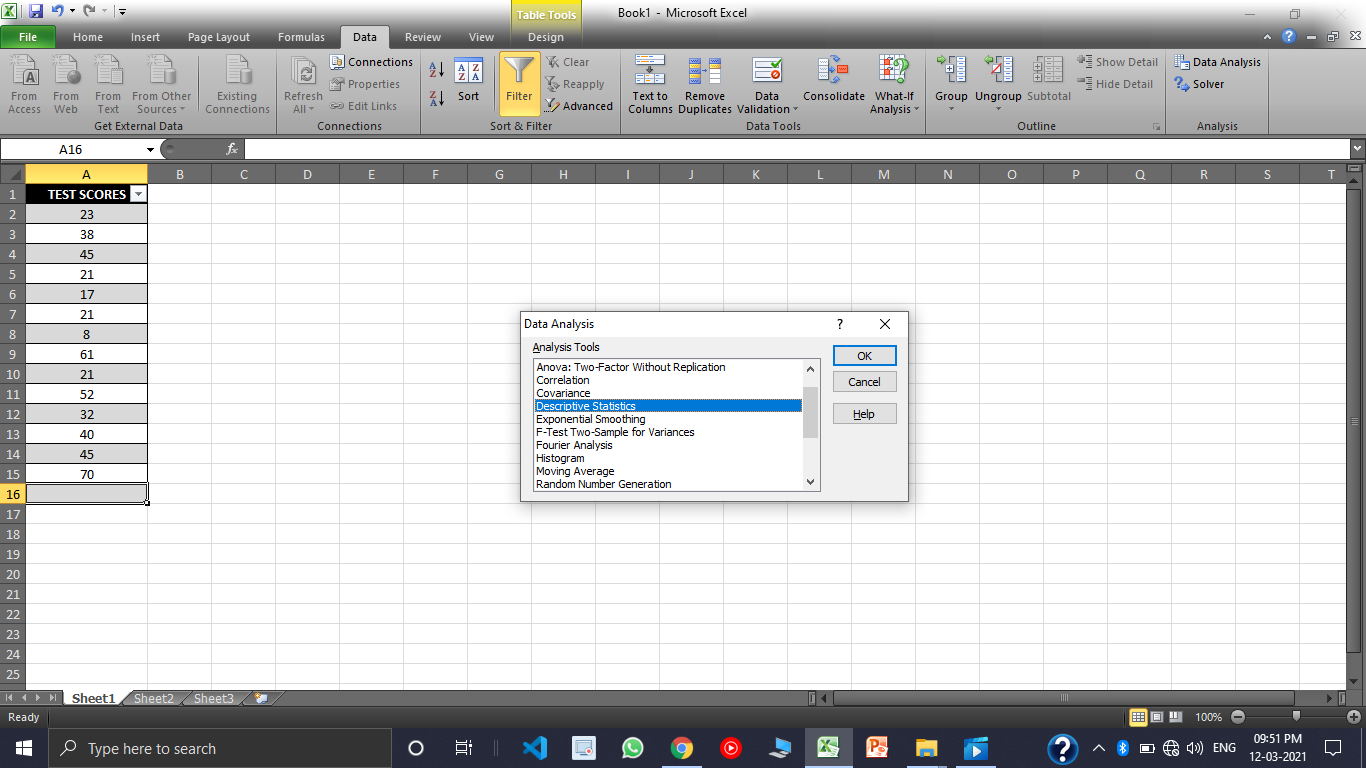
**PRODECEDURE:**

This performed practical is helpful for understanding **Linear Regression using Data Analysis Toolbox of Excel** on given data set using descriptive statistics toolbox of excel.

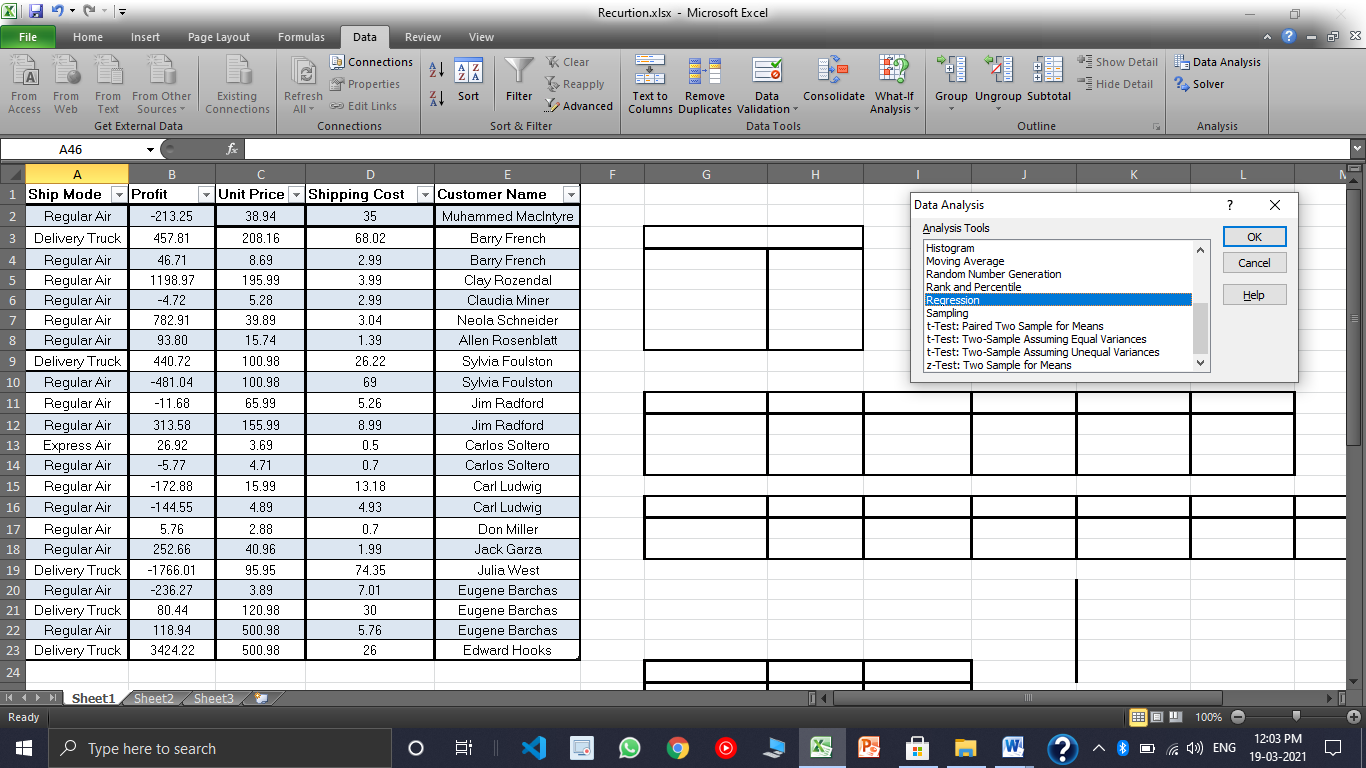
1. **Enter the data in excel sheet**. The Data should not be empty.



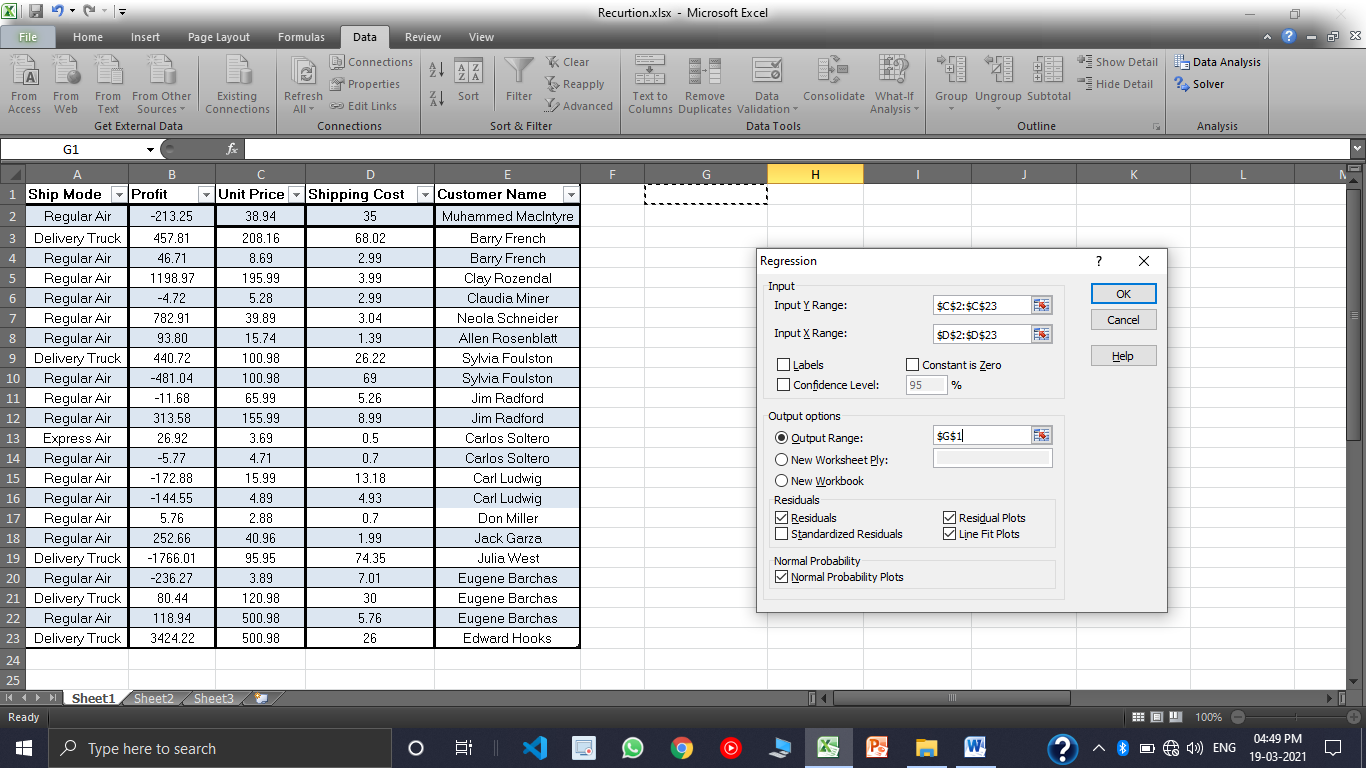
1. Click on **Data Tab** and then click on **DATA ANALYSIS.**



1. Clicking on this **Data Analysis** this dialogue box would appear, select **Regression** and click on **ok.**

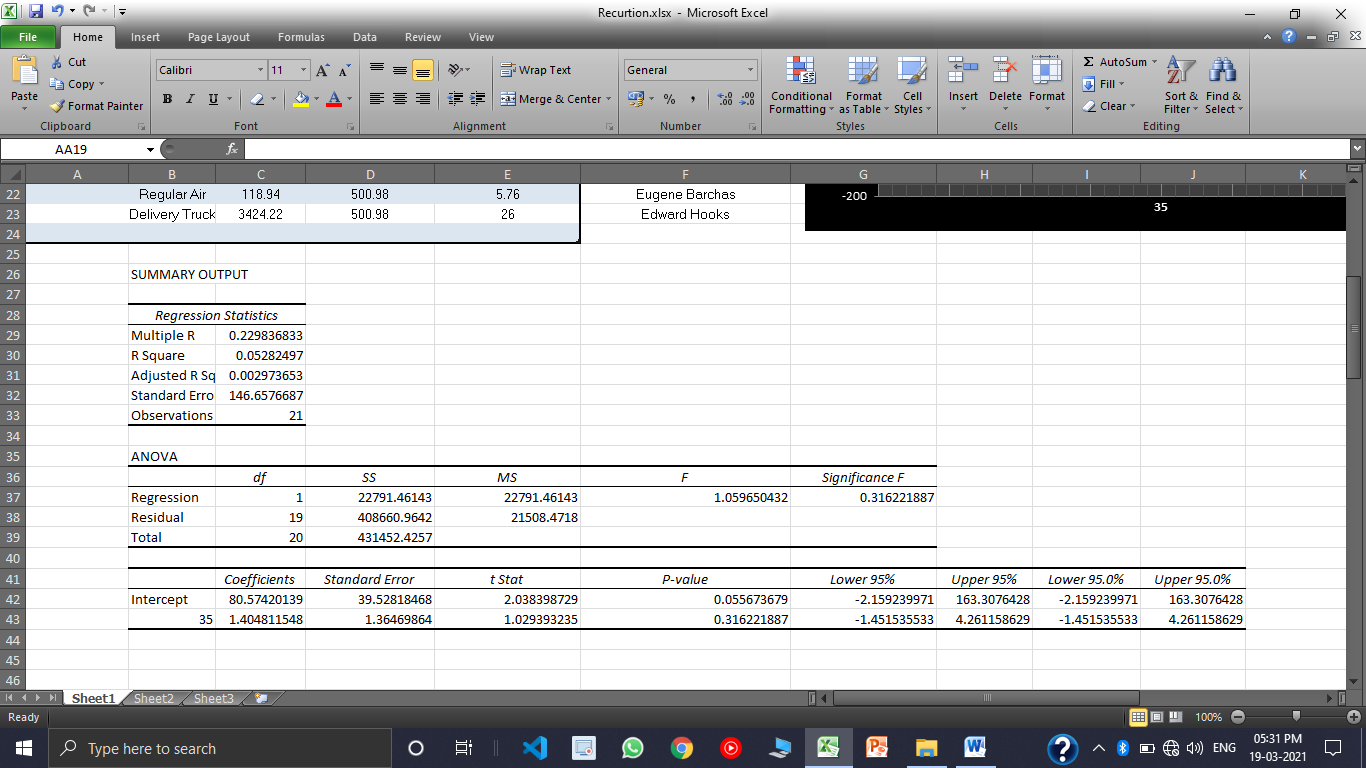
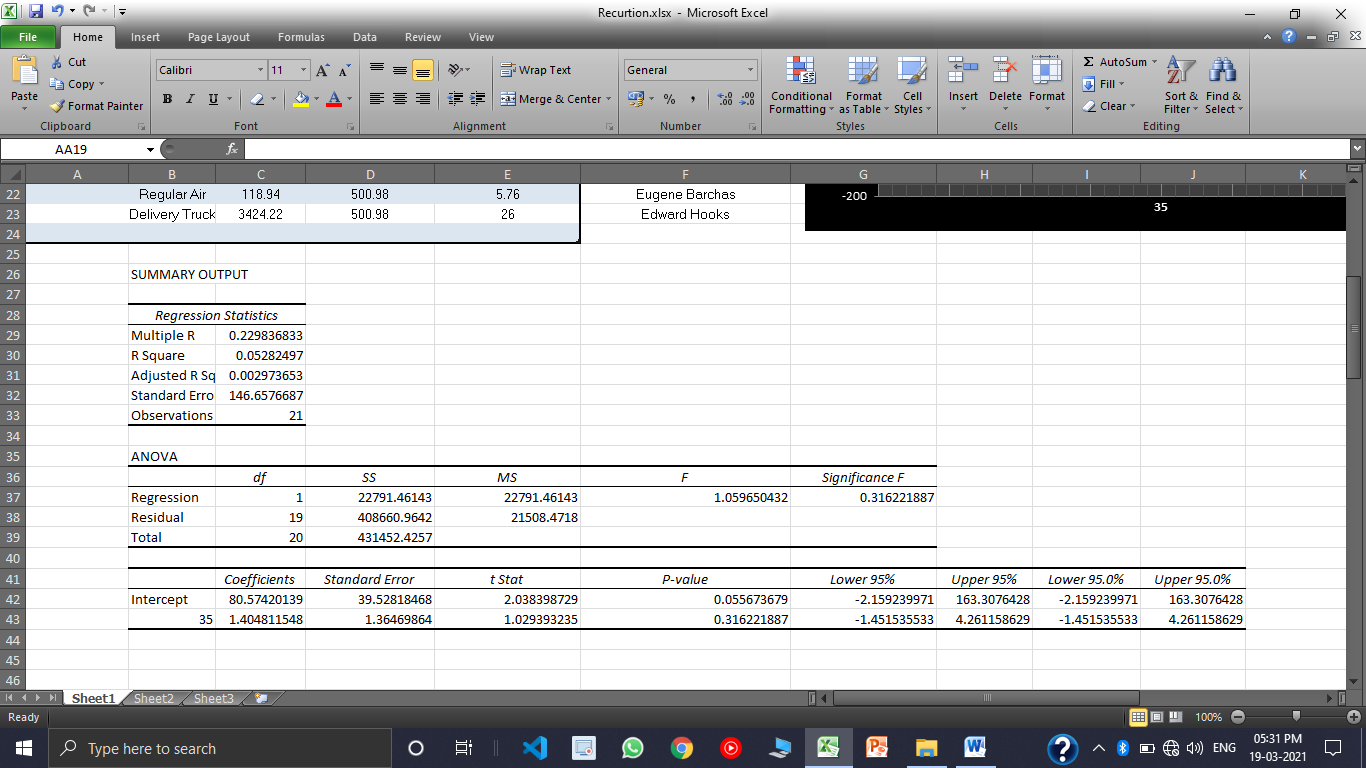


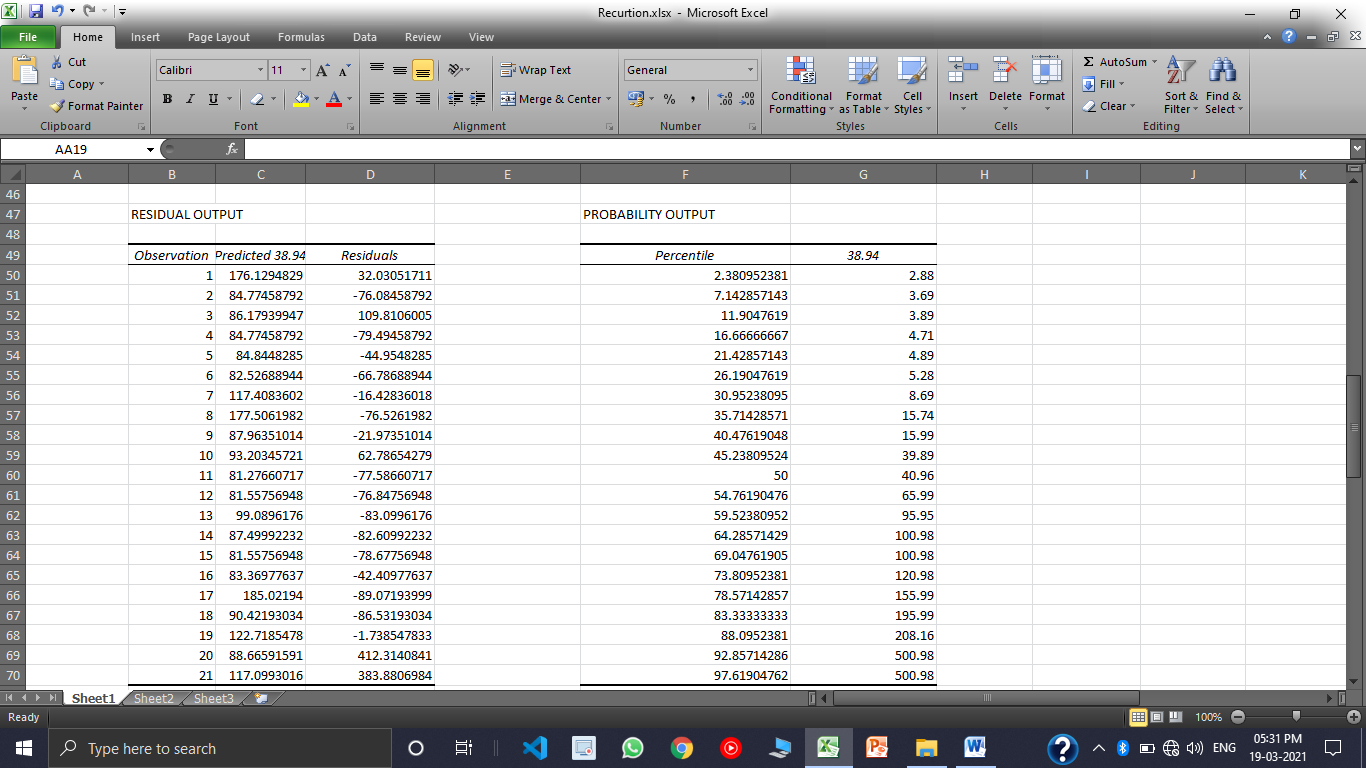
1. Input the Input Y Range and Input Range X also select the Output Range. **Remember the Input Range should be numeric value.**
2. Input the **Output Range** Select the **Residuals, Residual Plots, Line Fit Plots and Normal Probability Plots.**



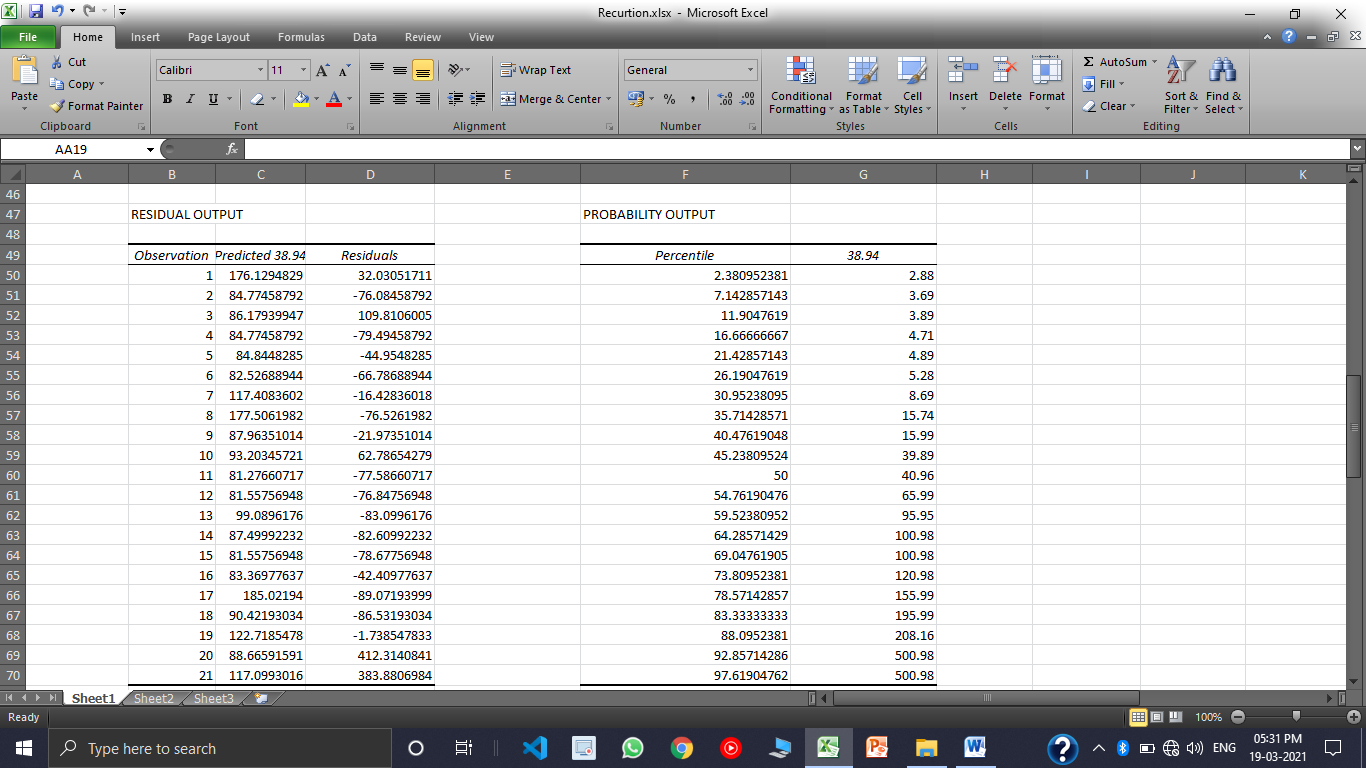
1. When you click on OK your Result would appear.

**RESULT:**

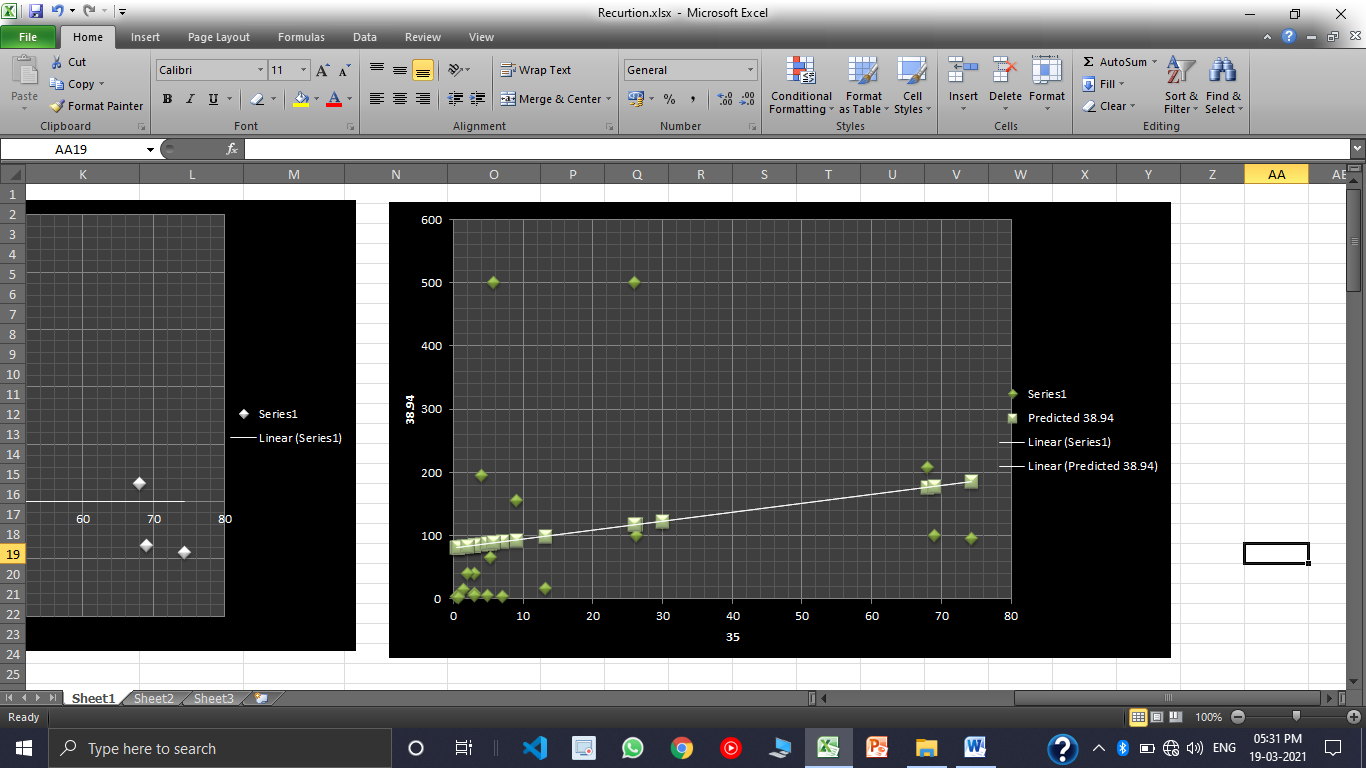
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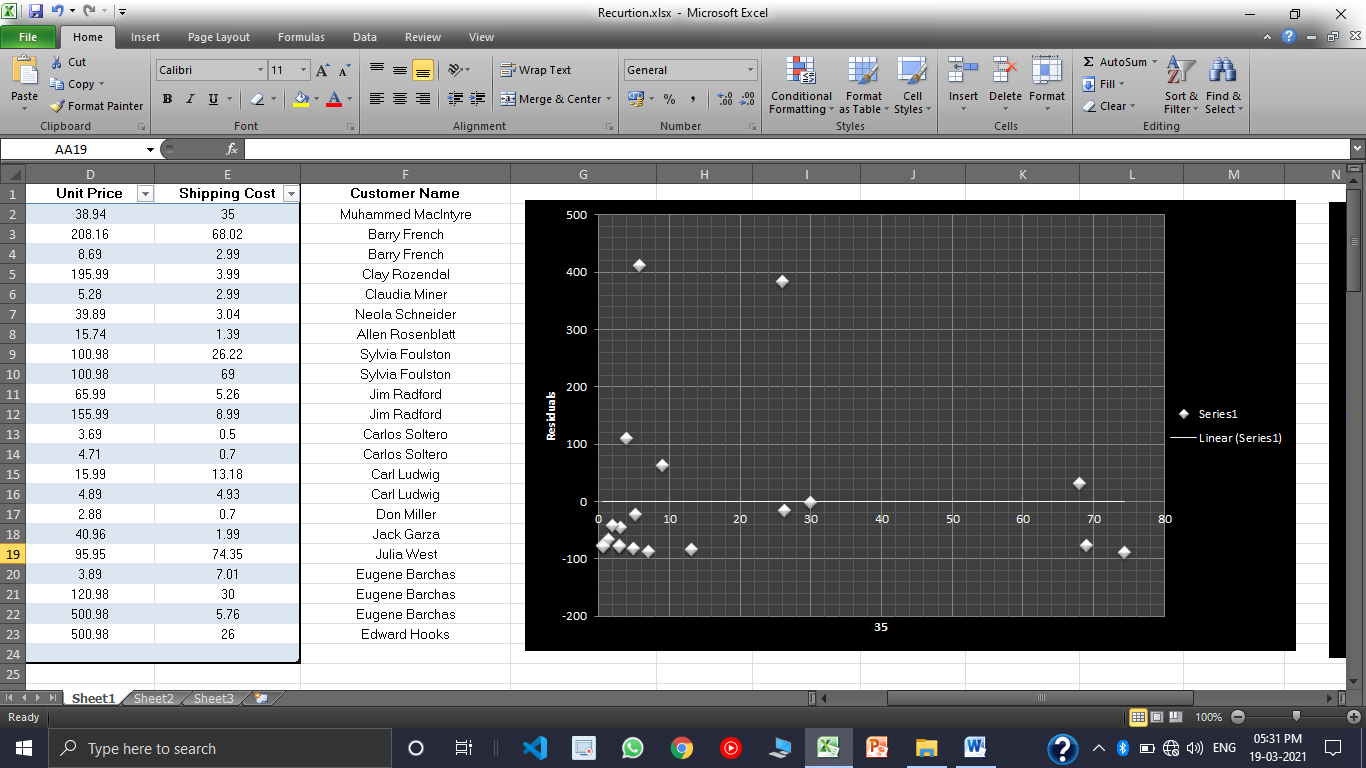
**PROBABILITY OUTPUT TABLE**

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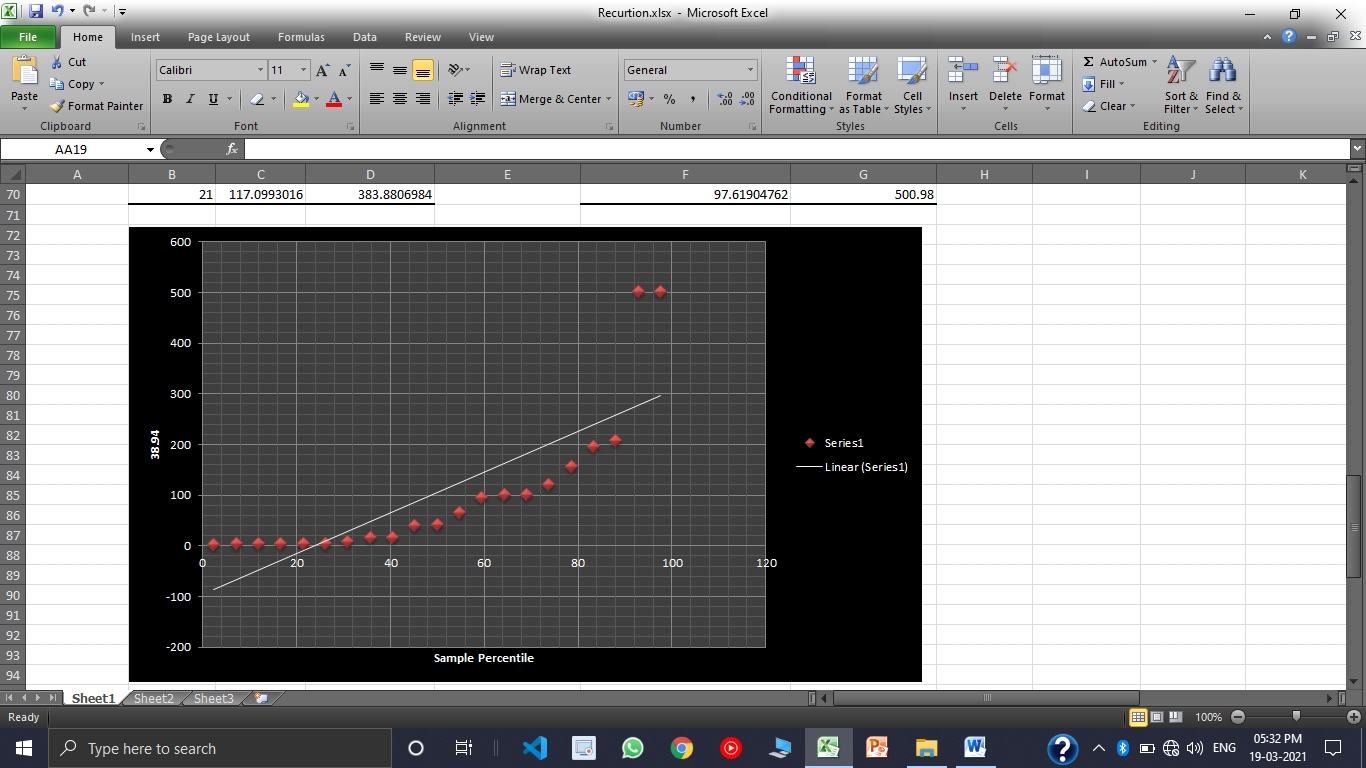
**UINT COST + SHIPPING COST GRAPH**

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**SHIPPING COST GRAPH**

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**PROBABILITY OUTPUT**

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