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**CSE303: Report on Lab Tasks**

**Lab Number: 03**

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| --- | --- |
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| Course Name | Statistics for Data Science |
| Course Code | CSE303 |
| Section | 01 |

**Submitted to:**

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Associate Professor,

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**Experiment Name**: Pandas for Data Analysis

Date of submission: 25 July 2021

**Lab Tasks:**

1. Basic Statistical Summary for any column

Graphical user interface, text

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1. Generate Histograms for at least two columns with different skewness. [one positively skewed, another negatively skewed]

**Positively skewed:**

Text

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Chart, histogram

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Positively skewed histogram

**Negatively Skewed:**

Graphical user interface, application

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Chart, histogram

Description automatically generated

Negatively skewed histogram

1. Generate Box Plot for at least two columns with different kurtosis. [one kurtosis > 0, another kurtosis < 0]

**Positive Kurtosis:**

Graphical user interface

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Chart, box and whisker chart

Description automatically generated

Box plot for positive kurtosis

**Negative kurtosis:**

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Description automatically generated with medium confidence

Chart, box and whisker chart

Description automatically generated

Box plot for negative kurtosis

1. Generate a bar and pie chart for variety column.

**Bar chart:**

Chart, bar chart

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Bar Chart for variety Column

**Pie Chart:**

Chart, pie chart

Description automatically generated

Pie Chart for variety Column

1. Generate correlation matrix.

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Correlation Matrix

1. From the correlation matrix, show the scatter plot in between the columns which have highest (most positive) and lowest correlation (most negative)

**Positive Scatter plot:**

Chart, scatter chart

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Positive Scatter diagram

**Negative Scatter plot:**

Chart, scatter chart

Description automatically generated

Negative Scatter diagram

1. Also generate heatmap for correlation matrix using sns.heatmap.

**Heatmap:**

Chart

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Heatmap