7COM1079-2024 Student Group No: A195
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Name of Student Presenting: Bhavana

Group Name: A195

RQ– Is there a correlation between average temperature and beer consumption in liters throughout the year in São Paulo?.

Tutorial Presentation for Feedback

University of Hertfordshire UH

Date: 13.11.2024

The dataset contains a sample of data collected in a university area in Sao Paulo, Brazil on Beer consumption among 18- 28 a group people over a year.

Variables used in the research question are beer consumption liters and temperature media.

The variables present in the dataset are temperature media, temperature minima, temperature maxima, beer consumption(consumo de cerveja), weekend(final de semana), This dataset has 7 rows and 365 columns of data.

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Names of Student Group Attendees:

Dataset ID: **DS106- Beer Consumption – Sao Paulo**

This dataset is interesting to us because : we chose this dataset as it is practical, offers data analysis opportunities and provides insights on multiple departments of an organization such as business, finance, also we can develop our research and analysis skills based on meaningful questions.

Our Independent variable is temperature media (Average Temperature) and its datatype is measurement/interval data.

Our Dependent variable is Beer Consumption (liters) and its datatype is measurement/interval data

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Our Research Question is:

Is there a correlation between average temperature and beer consumption in liters   throughout the year in São Paulo?.

Correlation: Interval *vs* Interval: "Is there a correlation between Beer consumption (Liters) and Average Temperature (Temperatura Media).

[1]**Correlation** (Analysis of how ordinal/interval independent var correlates to an ordinal/interval dependent var correlates to an ordinal/interval independent var
[2]**Comparison of means** (or medians): Analysis of the difference between the mean (or median) value of a characteristic shared by members of two different populations.
[3]**Comparison of proportions:** Analysis of the difference in proportions of a characteristic shared by members of different populations.

Hypotheses based on the Research Question:

1. Null hypothesis (H_0): There is **no** effect on the population –

Null hypothesis (H_0): There is **no** correlation between Beer Consumption (litres) and Average Tempe

2. Alternative hypothesis (H_1): There appears to be an effect on the population –

Alternative hypothesis (H_1): There is **a** correlation between Beer Consumption (litres) and Average Temperature.

Data	Temperatura Media (C)	Temperatura Minima (C)	Temperatura Maxima (C)	Precipitacao (mm)	Final de Semana	Consumo de cerveja (litros)
01-01-2015	27,3	23,9	32,5	0	0	25,46
02-01-2015	27,02	24,5	33,5	0	0	28,92
03-01-2015	24,82	22,4	29,9	0	1	30,8
04-01-2015	23,98	21,5	28,6	1,2	1	29,7
05-01-2015	23,82	21	28,3	0	0	28
06-01-2015	23,78	20,1	30,5	12,2	0	28,2
07-01-2015	24	19,5	33,7	0	0	29,7
08-01-2015	24,9	19,5	32,8	48,6	0	28,3
09-01-2015	28,2	21,9		34 4,4	0	24,88

Fig.01 Beer Consumption