TÉCNICO LISBOA

DS 2024

Data Science Project

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TIME SERIES ANALYSIS

1 DATA PROFILING

Data Dimensionality and Granularity

May be used to identify the most atomic granularity and two other different granularities to consider. **Shall not exceed 500 characters.**

Figure 1: Time series 1 at the most granular detail

Figure 2: Time series 1 at the second chosen granularity

Figure 3: Time series 1 at the third chosen granularity

Figure 4: Time series 2 at the most granular detail

Figure 5: Time series 2 at the second chosen granularity

Figure 6: Time series 2 at the third chosen granularity

Data Distribution

Shall be used to perform the data analysis at those three different granularities, concerning the series distribution. **Shall not exceed 500 characters.**

Figure 7: Boxplot(s) for time series 1

Figure 8: Boxplot(s) for time series 2

Figure 9: Histogram(s) for time series 1

Figure 10: Histogram(s) for time series 2

Figure 11: Autocorrelation lag-plots for original time series 1

Figure 12: Autocorrelation lag-plots for original time series 2

Figure 13: Autocorrelation correlogram for original time series 1

Figure 14: Autocorrelation correlogram for original time series 2

Data Stationarity

Shall be used to perform the data analysis at those three different granularities, concerning the series stationarity. **Shall not exceed 300 characters.**

Figure 15: Components study for time series 1

Figure 16: Stationarity study for time series 1

Figure 17: Components study for time series 2

Figure 18: Stationarity study for time series 2