

SURVEY DATA ANALYSIS REPORT

Survey Data

August 09, 2025

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Executive Summary

- This report provides an in-depth statistical analysis of 22 numeric variables from the dataset. The analysis includes calculation of mean, standard error, and confidence intervals, helping uncover trends, anomalies, and patterns in the data. A total of 7 charts and visualizations were generated, covering data distributions, correlations, and critical comparisons between key variables. These visual tools aid in understanding relationships and outliers. Before conducting the analysis, standard data cleaning procedures were applied — null values were removed, data types were standardized, and column names were normalized. This ensures the integrity and consistency of results derived from the dataset.

Data Cleaning Notes

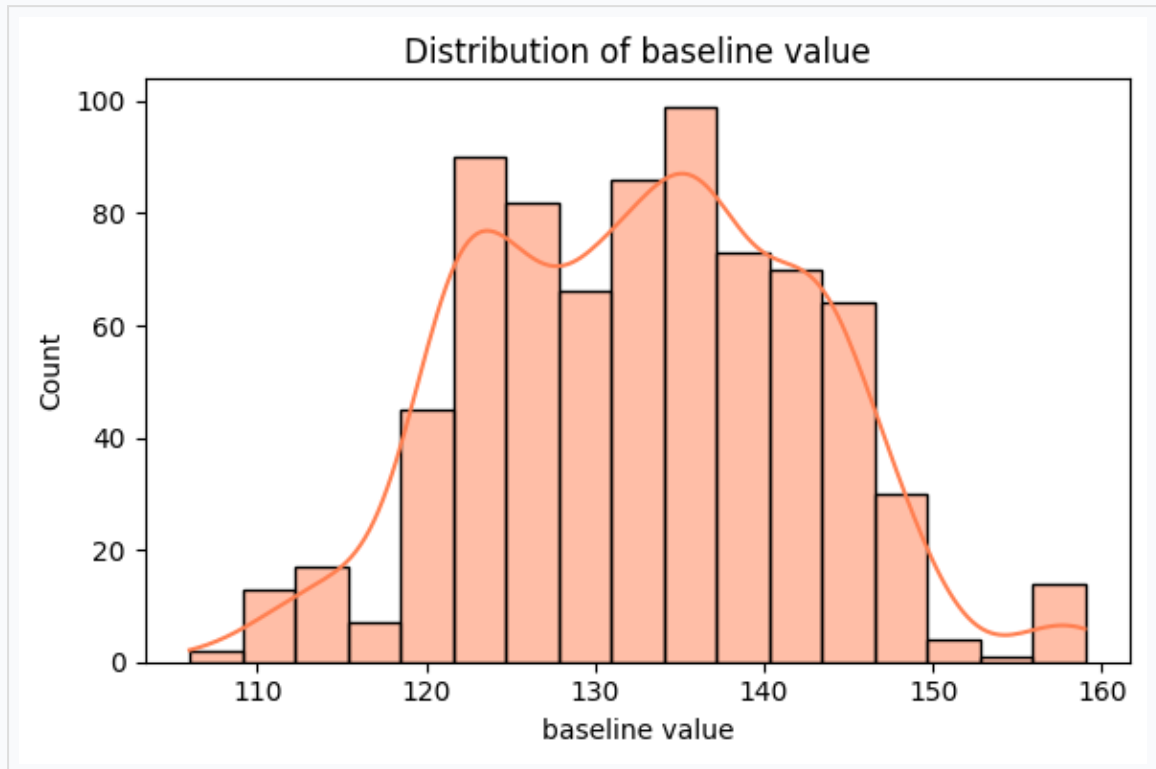
Standard cleaning applied: removed null values, fixed data types, and normalized column names.

Statistical Summary

Variable	Mean	SE	MoE (95% CI)
baseline value	132.73	0.35	0.7
accelerations	0.0	0.0	0.0
fetal_movement	0.0	0.0	0.0
uterine_contractions	0.0	0.0	0.0
light_decelerations	0.0	0.0	0.0
severe_decelerations	0.0	0.0	0.0
prolongued_decelerations	0.0	0.0	0.0
abnormal_short_term_variability	43.7	0.54	1.07
mean_value_of_short_term_variability	1.08	0.02	0.03
percentage_of_time_with_abnormal_long_term_variability	5.49	0.34	0.67
mean_value_of_long_term_variability	8.68	0.15	0.29
histogram_width	53.8	0.95	1.87
histogram_min	105.77	0.82	1.6
histogram_max	159.57	0.51	1.0
histogram_number_of_peaks	2.92	0.08	0.15
histogram_number_of_zeroes	0.0	0.0	0.0
histogram_mode	138.73	0.44	0.86
histogram_mean	137.62	0.42	0.82
histogram_median	139.52	0.42	0.83
histogram_variance	6.31	0.21	0.42
histogram_tendency	0.25	0.02	0.04
fetal_health	1.0	0.0	0.0

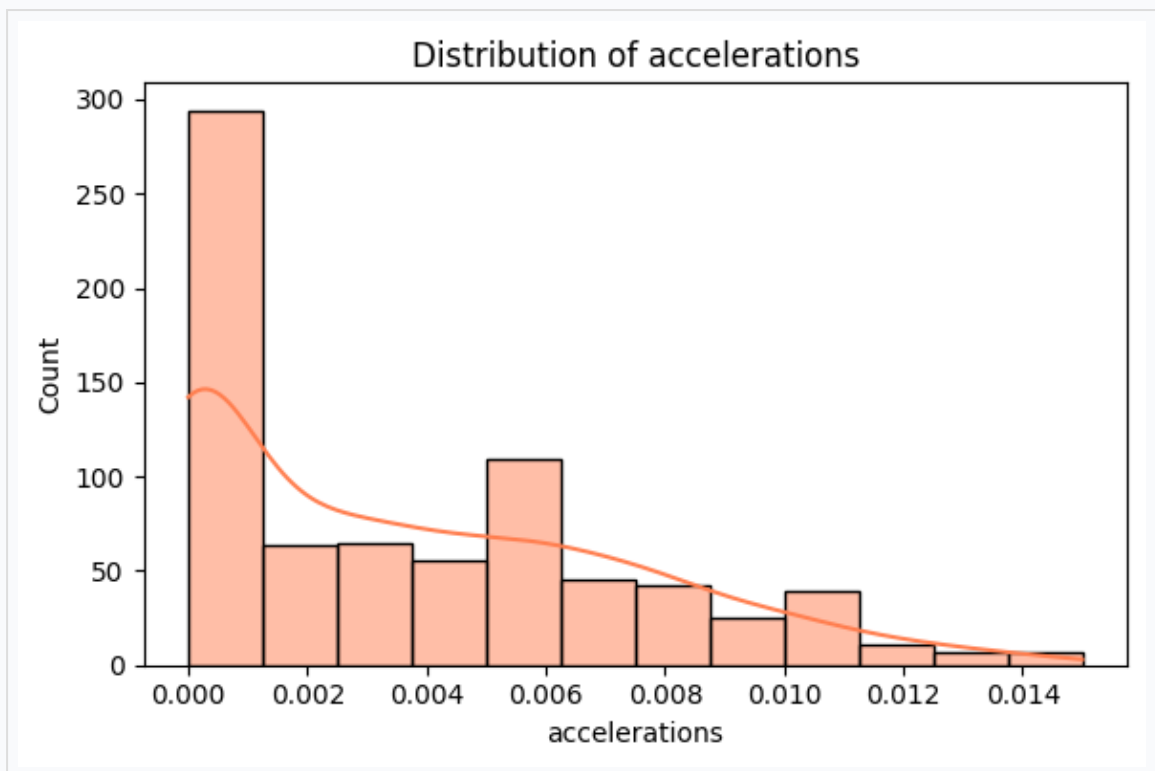
Charts & Visualizations

Distribution: baseline value



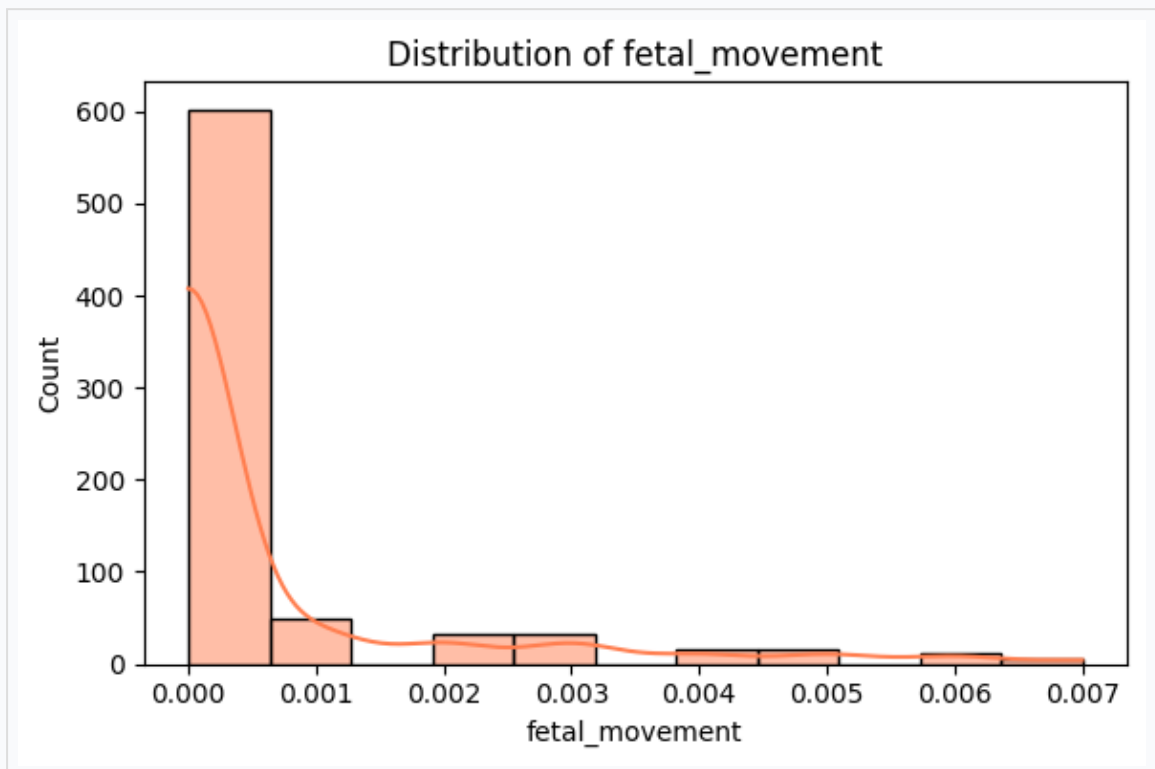
The average baseline value is 132.73 with a spread of 9.80.

Distribution: accelerations



The average accelerations is 0.00 with a spread of 0.00.

Distribution: fetal_movement

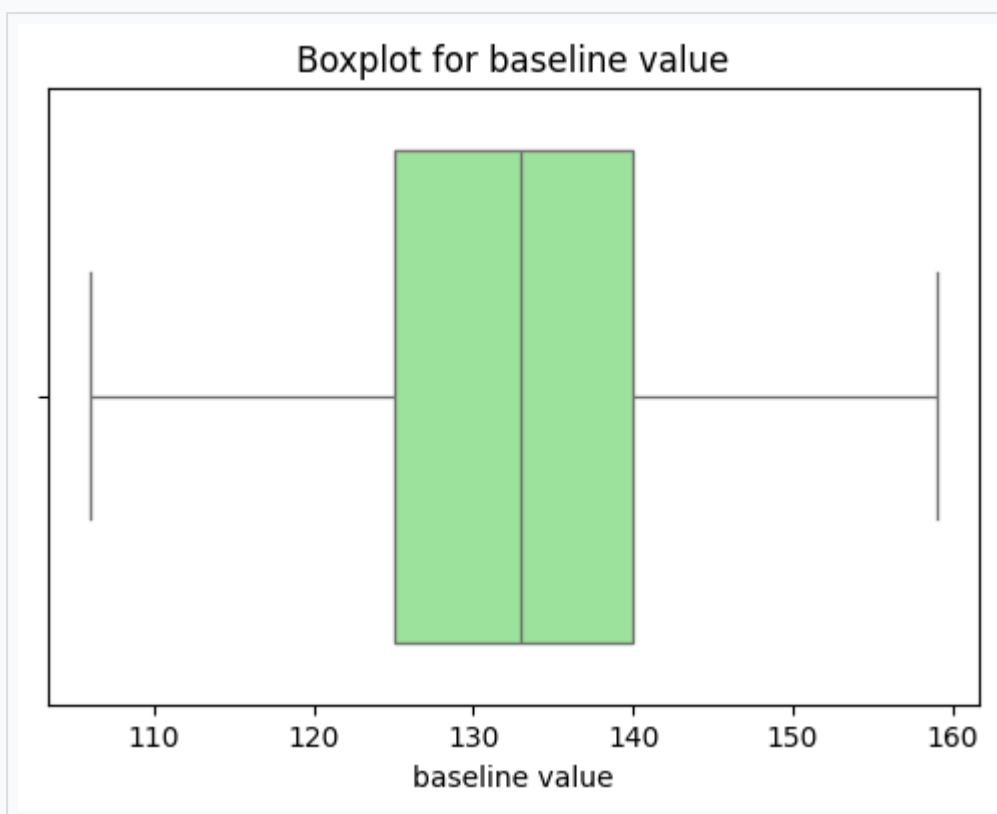


The average fetal_movement is 0.00 with a spread of 0.00.

Correlation Heatmap

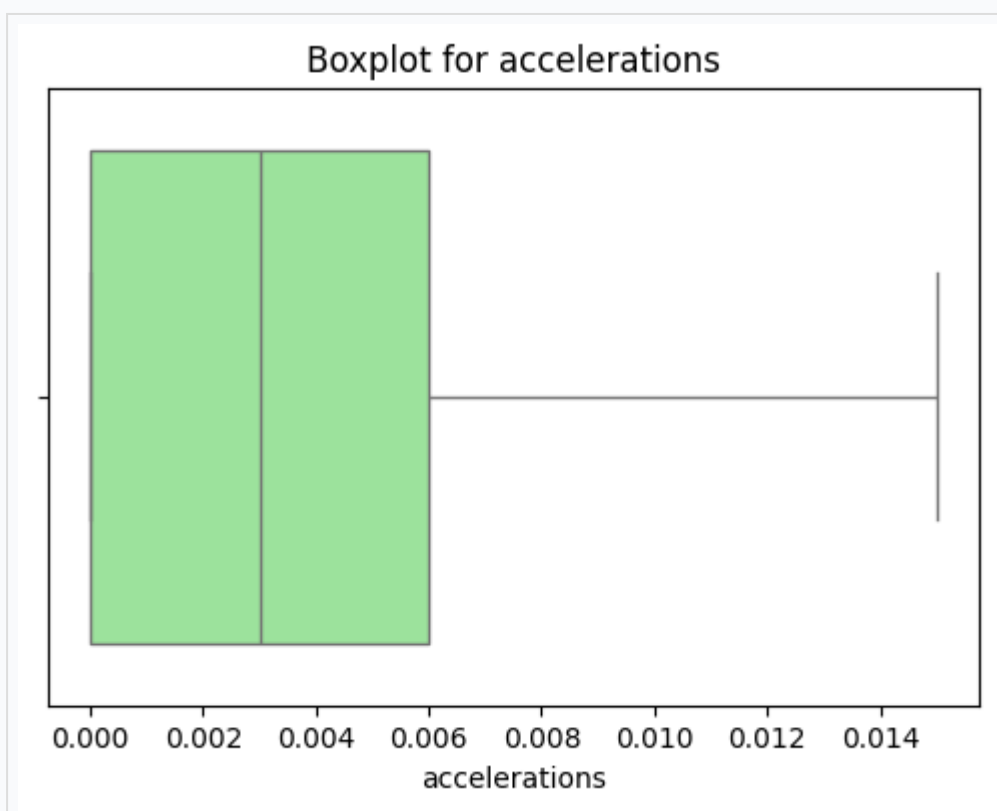
	baseline_value	accelerations	fetal_movement	uterine_contractions	light_decelerations	severe_decelerations	prolonged_decelerations	abnormal_short_term_variability	mean_value_of_short_term_variability	percentage_of_time_with_abnormal_long_term_variability	mean_value_of_long_term_variability	histogram_width	histogram_min	histogram_max	histogram_number_of_peaks	histogram_number_of_zeros	histogram_mode	histogram_mean	histogram_median	histogram_variance	histogram_tendency	fetal_health
baseline_value	1.00	0.99	0.99	0.00	0.00	0.00	0.00	0.00	0.00	-0.15	-0.15	-0.00	-0.30	-0.40	-0.00	-0.00	-0.90	-0.90	-0.90	-0.00	-0.20	-0.00
accelerations	0.99	1.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.90	-0.90	-0.90	-0.00	-0.20	-0.00
fetal_movement	0.99	0.99	1.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.15	-0.15	-0.00	-0.30	-0.40	-0.00	-0.00	-0.90	-0.90	-0.90	-0.00	-0.20	-0.00
uterine_contractions	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
light_decelerations	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
severe_decelerations	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
prolonged_decelerations	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
abnormal_short_term_variability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mean_value_of_short_term_variability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
percentage_of_time_with_abnormal_long_term_variability	-0.15	-0.00	-0.15	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mean_value_of_long_term_variability	-0.15	-0.00	-0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
histogram_width	-0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
histogram_min	-0.30	-0.00	-0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
histogram_max	-0.40	-0.00	-0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
histogram_number_of_peaks	-0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
histogram_number_of_zeros	-0.00	-0.00	-0.00	0.00	0.00	0.00	0.00															

Boxplot: baseline value



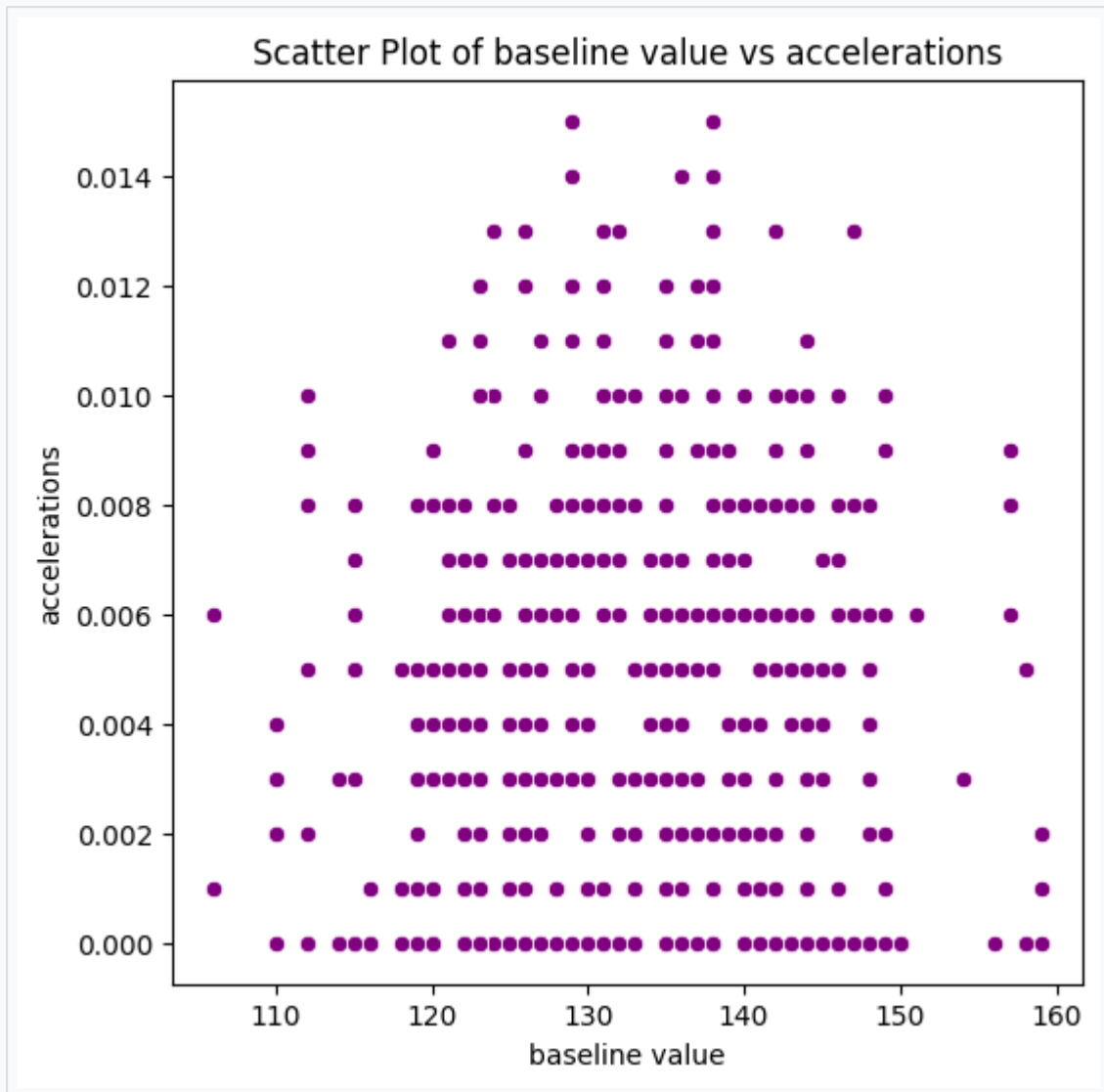
The average baseline value is 132.73 with a spread of 9.80.

Boxplot: accelerations



The average accelerations is 0.00 with a spread of 0.00.

Scatter Plot: baseline value vs accelerations



Recommendations

- Based on the statistical summaries and visual inspections, the dataset appears well-balanced. Most variables show consistent distributions with low variability, indicating good data quality. No immediate anomalies or issues were detected that would hinder further modeling or decision-making.