Model Development Phase Template

Date	7 July 2024
Team ID	739876
Project Title	FetalAI: Using Machine Learning To Predict And Monitor Fetal Health
Maximum Marks	5 Marks

Feature Selection Report Template

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
prolongued_decelerations	It is abnormal fetal heart rate lasts for long time.	Yes	Prolongued decelerations are a concerning pattern in FHR that can indicate fetal distress and potential complications during labor.
abnormal_short_term_variability	It is irregularities in the fetal heart rate that deviate from the normal range of variability over short periods.	Yes	This variability is crucial as it reflects the autonomic nervous system's response and fetal well-being. Abnormal STV can be an indicator of fetal distress or other complications.
percentage_of_time_with_abnormal_long_term_variability	It is percentage of time with deviations in variability over longer periods.	Yes	Abnormal LTV can indicate fetal distress or other complications. It involves identifying the most relevant data points

			that help in accurately detecting and predicting abnormalities in LTV.
histogram_variance	It is the variance in the distribution of data values.	Yes	This measure can provide insights into the distribution and variability of FHR data over time.
histogram_median	It provides a measure of central tendency, reflecting the middle value of a dataset when ordered.	Yes	It can offer insights into the central tendencies of heart rate values over time, which can be crucial for identifying patterns indicative of fetal well-being or distress.
mean_value_of_long_term_variability	It provides an average measure of the variability in the fetal heart rate over a longer period.	Yes	This can be crucial for detecting abnormal patterns and assessing fetal well-being.
histogram_mode	The most frequently occurring value (or range of values) in a histogram, which provides insights into the most common values in a dataset.	Yes	The histogram mode can reveal the predominant heart rate ranges over time, which is useful for identifying patterns and potential issues.

accelerations	It is short-term rises in the heart rate.	Yes	Analyzing accelerations can help determine fetal health and respond to potential issues early.