

Project Design Phase-I Solution Architecture

Date	17 November 2023
Team ID	SI-GuidedProject-610171-1701658790
Project Name	FetalAI: Using Machine Learning to predict and monitor Fetal Health
Maximum Marks	2 Marks

Project Flow:

- The user interacts with the UI to enter the input.
- Entered input is analyzed by the model which is integrated.
- Once the model analyzes the input the prediction is showcased on the UI

Architecture:

1.) Define Problem / Problem Understanding

- Specify the business problem
- Business requirements
- Literature Survey
- Social or Business Impact.

2.) Data Collection & Preparation

- Collect the dataset

3.) Exploratory Data Analysis

- Descriptive statistical
- Visual Analysis
- Feature Selection
- Scaling the data
- Checking if the dataset is balanced or not

4.) Model Building

- Splitting data into train and test
- Applying SMOTE to balance the data
- Training the model after applying SMOTE
- Training the model in multiple algorithms
- Testing the model

5.) Performance Testing

- Create data frame of model performance
- Bar plot for model performance

6.) Model Deployment

- Save the best model
- Integrate with Web Framework

