**Project Initialization and Planning Phase**

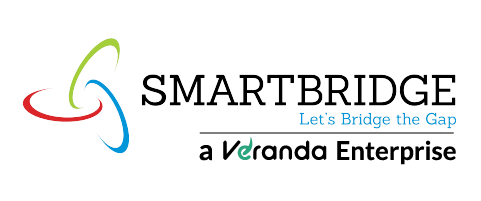
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| Date | 04-07-2024 |
| Team ID | 739697 |
| Project Title | Fetal AI:Using Maching learning to predict and monitor fetal health |
| Maximum Marks | 3 Marks |

**Project Proposal (Proposed Solution) report**

The primary objective is to enhance fetal health monitoring and prediction using advanced machine learning techniques, ensuring early detection of potential issues and improving maternal and fetal outcomes.

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| **Project Overview** |  |
| Objective | The primary objective is to revolutionize fetal health monitoring by leveraging advanced machine learning techniques for early detection and prediction of potential complications, ensuring better maternal and fetal outcomes. |
| Scope | The scope includes developing machine learning models for real-time fetal health monitoring and predictive analytics, ensuring early detection of complications and personalized care. |
| **Problem Statement** |  |
| Description | Leveraging machine learning to enhance fetal health monitoring and prediction, ensuring early detection of complications and personalized maternal-fetal care. |
| Impact | Machine learning in fetal health monitoring can drastically improve early detection and intervention, leading to better maternal and fetal outcomes. |

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| **Resource Type** | **Description** | **Specification/Allocation** |
| **Hardware** |  |  |
| Computing Resources | CPU/GPU specifications, number of cores | T4 GPU |
| Memory | RAM specifications | 8 GB |
| Storage | Disk space for data, models, and logs | 1 TB SSD |



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| **Proposed Solution** |  |
| Approach | The approach involves collecting and preprocessing comprehensive health data, developing predictive machine learning models, and integrating them into healthcare systems for real-time monitoring and intervention. |
| Key Features | **Real-Time Monitoring**: Continuous analysis of fetal and maternal health data.  **Predictive Analytics**: Early detection of potential complications.  **Personalized Care**: Tailored interventions based on individual health profiles. |

**Resource Requirements**

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| **Software** |  |  |
| Frameworks | Python frameworks | Flask |
| Libraries | Additional libraries | scikit-learn, pandas, numpy, matplotlib, seaborn |
| Development Environment | IDE | Jupyter Notebook, pycharm |
| **Data** |  |  |
| Data | Source, size, format | Kaggle dataset, 614, csv |