# Project Initialization and Planning Phase

| Date | 9-JULY-2024 |
|---|---|
| Team ID | |
| Project Title | Fetal AI:Using Machine Learning To Predict And Monitor Fetal Health. |
| Maximum Marks | 3 Marks |

**Project Proposal (Proposed Solution) template**

This project proposal outlines a solution to address a specific problem. With a clear objective, defined scope, and a concise problem statement, the proposed solution details the approach, key features, and resource requirements, including hardware, software, and personnel.

| **Project Overview** | |
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| Objective | Fetal health refers to the well-being and development of a fetus during pregnancy. Predicting and monitoring fetal health is crucial to identify potential complications and ensure a healthy pregnancy |
| Scope | Fetal Development,Monitoring fetal growth and Heart rate ,Mental Health and wellness. |
| **Problem Statement** | |
| Description | This problem statement leading to inadequate monitoring, delayed detections of fetal growth, and potentially preventable complications. |
| Impact | Timely insights and accurate interventions can prevent consequences, ensuring a healthy start for the baby . |
| **Proposed Solution** | |
| Approach | AI-powered ultrasound analysis and fetal heart rate monitoring for early detection of potential issues with.Building a telemedicine platform for remote prenatal care.Designing a low-cost, portable device/wearable device for fetal monitoring in resource-poor settings. |
| Key Features | Advanced fetal monitoring and personalized risk assessment enable early detection and prevention of complications,Connection with other expectant mothers and support groups for emotional support. |

| | This leads to better health outcomes,personalized fetal care, reduced healthcare costs, and enhanced quality of life. |
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**Resource Requirements**

| Resource Type | Description | Specification/Allocation |
|---|---|---|
| **Hardware** | | |
| Computing Resources | CPU/GPU specifications, number of cores | 2 x NVIDIA V100 GPUs |
| Memory | RAM specifications | 8 GB |
| Storage | Disk space for data, models, and logs | 1 TB SSD |
| **Software** | | |
| Frameworks | Python frameworks | e.g., Flask |
| Libraries | Additional libraries | e.g., scikit-learn, pandas, numpy,Seaborn |
| Development Environment | IDE, version control | e.g., COLAB Notebook, Git,VS Code/Spyder |
| **Data** | | |
| Data | Source, size, format | e.g., Kaggle dataset, 10,000 images |