# Project Initialization and Planning Phase

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| Date | 04 June 2024 |
| Team ID | SWTID1720076203 |
| Project Title | Anemia Sense: Leveraging Machine Learning For Precise Anemia Recognitions |
| Maximum Marks | 3 Marks |

**Project Proposal (Proposed Solution) template**

This project aims to significantly improve anemia management using machine learning, resulting in better patient outcomes and satisfaction. Through timely diagnosis, individualized treatment, and continuous care, we can mitigate the impact of anemia and enhance the quality of life for affected individuals.

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| **Project Overview** | |
| Objective | The primary objective is to revolutionize anemia diagnosis and management by implementing advanced technology solutions, ensuring timely and personalized care for patients. |
| Scope | The project will focus on improving diagnostic accuracy, reducing healthcare costs, and enhancing patient satisfaction through innovative technology solutions. |
| **Problem Statement** | |
| Description | Widespread underdiagnosis and inefficient management of anemia, Current practices lead to delayed detection, generalized treatment approaches, and high healthcare costs, contributing to patient dissatisfaction and compromised health outcomes. |
| Impact | This approach could potentially reduce healthcare costs associated with prolonged or ineffective treatments while enhancing overall patient satisfaction and quality of life. |
| **Proposed Solution** | |
| Approach | Developing and deploying machine learning models for predicting anemia based on comprehensive datasets of relevant health indicators. Validate model accuracy through rigorous testing and refinement |

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| | phases, aiming to streamline and improve the efficiency of anemia diagnosis. |
| Key Features | Utilizing sophisticated machine learning algorithms to analyze comprehensive health data and predict anemia with high accuracy. |

**Resource Requirements**

| Resource Type | Description | Specification/Allocation |
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| **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 |
| **Software** | | |
| Frameworks | Python frameworks | Flask |
| Libraries | Additional libraries | scikit-learn, pandas, numpy, matpotlib, seaborn |
| Development Environment | IDE, version control | Jupyter Notebook, Git,Spyder |
| **Data** | | |
| Data | Source, size, format | Kaggle dataset, 37KB,csv |