**Project Initialization and Planning Phase**

|  |  |
| --- | --- |
| Date | 10 July 2024 |
| Team ID | SWTID1720083491 |
| Project Title | Early Prediction of Chronic Kidney disease |
| 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** | |
| Objective | The primary objective of this project is to develop a machine learning model to predict chronic kidney disease early |
| Scope | The project comprehensively assesses and enhances the early prediction of chronic kidney disease process, incorporating machine learning for a more robust and efficient system. |
| **Problem Statement** | |
| Description | Chronic kidney disease (CKD) is a serious condition that affects millions of people worldwide. Early detection of CKD is important because it allows for early intervention and treatment, which can help slow or prevent the progression of the disease |
| Impact | A machine learning model for early prediction of CKD could have a significant impact on public health. By allowing for earlier detection and treatment, the model could help slow or prevent the progression of CKD and improve patient outcomes. |
| **Proposed Solution** | |
| Approach | It involves training a model using machine learning algorithm on patient data to predict chronic kidney disease. |
| Key Features | - The model will be accurate and reliable in predicting CKD.  - The model will be easy to use by healthcare professionals.  - The model will be cost-effective to implement. |

**Resource Requirements**

|  |  |  |
| --- | --- | --- |
| **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 | 512 GB SSD |
| **Software** | | |
| Frameworks | Python frameworks | Flask |
| Libraries | Additional libraries | scikit-learn, pandas, numpy, seaborn, matplotlib |
| Development Environment | IDE, version control | Jupyter Notebook, Git |
| **Data** | | |
| Data | Source, size, format | Kaggle dataset, 400, csv |