**Project Initialization and Planning Phase**

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| Date | 15 March 2024 |
| Team ID | 739935 |
| Project Title | Panic Disorder Detection |
| Maximum Marks | 3 Marks |

**Project Proposal (Proposed Solution) template**

This project aims to develop a system for the early detection of panic disorder using advanced data analysis and machine learning techniques. The goal is to provide healthcare professionals with a tool to identify symptoms and predict the likelihood of panic disorder in patients, thereby enabling timely and effective intervention.

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| **Project Overview** | |
| Objective |  **Develop a comprehensive dataset:** Collect and preprocess data related to panic disorder symptoms from various sources.   **Design and implement machine learning models:** Create models to analyse data and detect patterns indicative of panic disorder.   **Evaluate model performance:** Use metrics such as accuracy, sensitivity, specificity, and AUC-ROC to assess model efficacy.   **Deploy the detection system:** Integrate the model into a user-friendly interface for use by healthcare professionals. |
| Scope | The scope of a Panic Disorder Detection system encompasses the comprehensive range of activities, objectives, and boundaries related to the development and deployment of a system aimed at identifying and diagnosing panic disorder in individuals. |
| **Problem Statement** | |
| Description | Panic disorder is a debilitating condition characterized by sudden, recurrent panic attacks that cause significant distress and impairment |
| Impact | It is clearly explained about the improvement of patient care and optimize health care delivery |
| **Proposed Solution** | |
| Approach | Panic Disorder Detection System can be developed to provide reliable, accurate |
| Key Features | It must be ensuring the panic disorder detection in comprehensive and user-friendly tool |

**Resource Requirements**

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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 |
| **Software** | | |
| Frameworks | Python frameworks | Flask |
| Libraries | Additional libraries | scikit-learn, pandas, NumPy, seaborn, matplotlib |
| Development Environment | IDE, version control | Jupiter Notebook, VS code |
| **Data** | | |
| Data | Source, size, format | Kaggle dataset, csv |