DEPARTMENT OF APEX INSTITUTE OF TECHNOLOGY

# PROJECT PROPOSAL

## 1. Project Title: -

Mental Health Prediction using Machine Learning

## 2. Project Scope: -

## This project aims to develop a predictive model for mental health estimation by analyzing diverse lifestyle factors, with a primary focus on predicting stress levels. The data set encompasses a wide range of information from participants, including age, gender, and occupation (Student, Corporate, Others), as well as sleep patterns, physical activity levels, dietary habits, substance use, and more. Utilizing a machine learning regression model, the project seeks to establish correlations between these factors, self-reported stress scale responses, and physiological indicators. Ethical considerations are paramount in the project's scope, prioritizing participant privacy and responsible data handling. By concentrating on stress prediction as a proxy for mental well-being, the project navigates the challenges associated with directly predicting mental health outcomes, addressing ethical concerns comprehensively. Real-world applications of the project extend to personalized interventions in counseling, wellness programs in corporate settings, and tailored health care strategies. The initiative recognizes the growing importance of mental health awareness and acknowledges the critical intersection of technology and mental health. By contributing insights into stress factors and mental well-being, the project aspires to bridge the gap between technological advancements and comprehensive mental health support, promoting a more holistic approach to individual well-being.

## 3. Requirements: -

* Software Requirements

1. Google Collaboratory

2. Jupyter Notebook

3. Vs Code

* Tech Stack

1. Python
2. NodeJs
3. ReactJs

**STUDENTS DETAILS**

|  |  |  |
| --- | --- | --- |
| **Name** | **UID** | **Signature** |
| NIMIT GARG | 21BCS4626 |  |
| REYAAN SACHDEVA | 21BCS5381 |  |

**APPROVAL AND AUTHORITY TO PROCEED**

We approve the project as described above, and authorize the team to proceed.

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| **Name** | **Title** | **Signature**  **(With Date)** |
| Mr Ankur Sharma | Mental Health Prediction using Machine Learning |  |