Project Design Phase-I
Proposed Solution Template

Date	4 November 2023
Team ID	Team-593059
Project Name	The Sleep Oracle Anticipating Health and Lifestyle Through Data
Maximum Marks	2 Marks

Proposed Solution:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	**Problem Statement (Problem to be solved)**	We aim to enhance well-being by leveraging data insights to address stress, sleep, and work-life balance. Our goal is to balance personalization with privacy while countering sleep-related challenges.

2.	**Idea / Solution description**	**Idea**: Develop a Well-Being Dashboard **Solution Description:** Build a web app through techniques like Logistic Regression,Decision Trees,Random Forest,XGB boost etc. that helps people manage stress, sleep. It tracks their data but lets them choose what to share for privacy. The web app gives personalized tips for reducing stress, improving sleep, and balancing work and life. This helps people have a healthier, more balanced life. **Stress Management:** The dashboard will include stress assessment tools and meditation resources, offering personalized stress-reduction techniques based on user preferences and stress data. **Sleep Optimization**: It will provide sleep tracking and analysis, identifying patterns and disruptions. Users will receive tailored sleep recommendations, such as adjusting sleep schedules or room conditions, to improve sleep quality.

3.	**Novelty / Uniqueness**	**1.Explainability and Interpretability :** By using Logistic Regression, Decision Trees, XGB boost and Random Forest enables a multifaceted analysis, capturing both linear and non-linear relationships in the data.These models offer interpretability, allowing users to gain a clear understanding of the factors influencing sleep and lifestyle that no single algorithm might reveal. **2. Robust Analysis:** Using these four techniques ensures a robust and resilient analysis.Logistic Regression handles linear relationships, Decision Trees provide rule-based insights, and Random Forest enhances predictive power and generalization.

4.	**Social Impact / Customer Satisfaction**	Our user-focused approach to sleep health and lifestyle analysis, leveraging multiple algorithms, maximizes customer satisfaction. It promotes improved well-being among individuals by offering personalized and understandable recommendations and transparent insights while ensuring data security.This can lead to healthier lives and, subsequently, reduced healthcare costs. Moreover, it indirectly contributes to environmental well-being by encouraging sustainable lifestyle choices and energy conservation.Predictive accuracy enhances satisfaction by delivering effective, tangible improvements.
5.	**Business Model (Revenue Model)**	Our revenue model is primarily centered on a freemium model. Users can access basic features of our sleep health and lifestyle analysis platform for free, including fundamental insights into their well-being. However, for a more comprehensive experience, users can opt for premium services, available on both a monthly and annual basis, which provide access to advanced features such as highly personalized recommendations, in-depth analysis, and data export capabilities. Additionally, we offer corporate or group subscriptions for healthcare providers, wellness

		programs, and workplace well-being initiatives, facilitating organizations' integration of our platform into their wellness strategies..
6.	**Scalability of the Solution**	Our solution is inherently scalable, adept at managing the increasing demands of a growing user base and expanding datasets. Leveraging efficient parallel processing and data sharding techniques, it maintains high performance standards. Continuous monitoring and machine learning models tailored for scalability ensure it operates seamlessly as user numbers and data volumes expand.