Project Design Phase-I Proposed Solution Template

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| Date | February 2024 |
| Team ID | Team-591930 |
| Project Name | Predicting Mental Health Illness Of Working Professionals Using Machine Learning |
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**Proposed Solution Template:**

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

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| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | The problem statement is to develop a machine learning model that can predict mental health illness among working professionals based on various factors such as demographics, work environment, lifestyle, and personal habits. The aim is to identify individuals who may be at risk of mental health issues early on, allowing for timely  intervention and support. |
| 2. | Idea / Solution description | The solution involves collecting data from working professionals, including demographic information, job-related stressors, lifestyle factors, and mental health indicators (such as depression or anxiety scores). This data will be used to train a machine learning model, possibly employing algorithms like logistic regression, decision trees, or neural networks, to predict the likelihood of mental health illness for new individuals based on their input data. |
| 3. | Novelty / Uniqueness | The novelty lies in the integration of various data points related to both work and personal life to predict mental health illness.  Additionally, the use of machine learning techniques allows for the development of personalized predictive models, which can adapt to individual differences and provide more accurate assessments. |
| 4. | Social Impact / Customer Satisfaction | The social impact of this project is significant as it addresses a crucial issue in society – mental health among working professionals. By accurately predicting mental health risks, individuals can receive timely support and intervention, leading to improved well-being and productivity. Customer satisfaction would be high among employers who prioritize employee welfare and among individuals who  benefit from early intervention. |

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| 5. | Business Model (Revenue Model) | The business model could involve offering the predictive model as a service to companies interested in assessing the mental health risks of their employees. This could be a subscription-based model where companies pay for access to the predictive tool and associated support services. Alternatively, it could be integrated into existing employee  assistance programs or healthcare offerings. |
| 6. | Scalability of the Solution | The solution is highly scalable as it relies on machine learning algorithms that can handle large datasets and adapt to diverse populations. The predictive model can be continually refined and updated as more data becomes available, improving its accuracy over time. Additionally, the model can be easily deployed across different industries and geographical regions, making it applicable on a global scale. |