**Model Development Phase Template**

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| Date | 20 June 2024 |
| Team ID | 739813 |
| Project Title | Optimizing Sleep Efficiency: Harnessing Machine Learning For Enhanced Restorative Rest |
| Maximum Marks | 5 Marks |

**Feature Selection Report Template**

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

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| **Feature** | **Description** | **Selected (Yes/No)** | **Reasoning** |
| ID | Unique identifier for each person | Yes | ID is using for serial wise data is stored |
| Age | Age of the participant | Yes | Any age is healthy |
| **Gender** | **Identifier for male or female** | **Yes** | **To find out which gender is healthy** |
| **Bedtime** | **Each person on sleep time** | **No** | **Bedtime and Date is not convert to float** |
| **Wakeup time** | **How many people sleep wake time** | **No** | **Wakeup time and date is not convert to float** |
| **Sleep duration** | **Total hours of sleep** | **Yes** | **To find out which sleep duration is healthy** |
| **Sleep efficiency** | **The percentage of time spent asleep while in bed** | **Yes** | **How many hours should be in bed stay healthy** |
| **REM sleep percentage** | **Sleep is one of four stages the brain moves through while sleeping. REM sleep percentage is 20%-25%** | **Yes** | **Calculated for Sleep is one of four stages the brain moves through while sleeping** |
| **Light sleep percentage** | **On average, light sleep will take up about 50% to 60% or more your night.** | **Yes** | **Calculated for Light sleep percentage** |
| **Awakenings** | **Number of awakenings during the night** | **Yes** | **In the night How many awakenings** |
| **Caffeine consumption** | **Amount of caffeine consumption daily** | **Yes** | **Is Caffeine consumption good for health** |
| **Alcohol consumption** | **Amount of Alcohol consumption daily** | **Yes** | **Reducing alcohol consumption to stay healthy** |
| **Smoking status** | **Whether the participant smokes(yes/no)** | **Yes** | **Health purpose is checking for smoking is yes or no** |
| **Exercise frequency** | **Frequency of physical exercise** | **Yes** | **How many hours exercise is good health** |