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## THE INFLUENCE OF SLEEP DURATION ON THE FEELING OF WELL-BEING DURING THE COVID-19 LOCKDOWN

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Lack of sleep from a mental point of view may lead to fatigue, deterioration of concentration, and even problems with memory. It may be the reason for diseases such as depression, bipolar disorder, anxiety disorders and ADHD . From the physical point of view, insomnia is one of the factors that can cause congestive heart failure. Hence, insomnia itself may be an indirect cause of death. Sleeping is an important activity that needs to be monitored as it plays a key role in the overall health and well-being of people. Recently, the use of wearable smart devices (watches, bands) has become very common, which has made them a good tool for collecting data from larger populations including data on sleep duration and quality

### MATERIALS AND METHODS

Data for the project was collected from an online survey set on Google Forms available to anyone who has a link without any prior requirement. The survey was opened for four weeks from 7 November 2020. Due to the anonymity of the questionnaire, there was reliance on the participants to be completely honest without ways to check certain data. The survey contains control questions about the mental health of respondents (problems with concentration, memory, bad behavior, stress, and fatigue are the main factors of mental issues), and data from smartphones (such as sleep time), own observations of sleep time (in case a respondent does not have a smartphone and to check the reliability of the smartband and smartphone) and specific data from bands (deep sleep time and REM phase time per night). In next step, classifier utilizes some training data to understand how given input variables relate to the class. Classification belongs to the category of supervised learning where the targets are also provided with the input data.

### RESUT AND CONCLUSIONS

The important results that are visible are that the way the person is feeling, tiredness and nervousness are affected by the time of sleep, concentration, and memory skills. The results returned the original hypothesis as the group expected it would from personal experience and trialing to see how the amount of sleep affects different cognitive capabilities and through the trial and error method received similar notions that with a lack of sleep mental acuity is reduced. Depending on the amount of lack of sleep and the amount of stress on the individual, the results may be more or less apparent but nonetheless they are there proven manually and through software trials.