SLEEP, HEALTH AND LIFE STYLE

PREDICTOR

SUBMITTED BY

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RESEARCH AREA

This project involves the development of a website that predicts users' sleep health and lifestyle based on a dataset using machine learning techniques.

PROBLEM STATEMENT

Presently, a significant number of individuals encounter challenges in achieving restful sleep. Consequently, many suffer from sleep disorders and other health-related complications. It is essential to recognize that quality sleep is intricately linked to one's lifestyle choices.

EXISTING SYSTEM

Numerous sleep tracking devices and applications are accessible on the internet. However, most of them focus on monitoring sleep duration and providing an overall assessment of sleep quality. Many sleep trackers primarily focus on total sleep time without delving into the different sleep disorders and sleep quality.

PROPOSED SYSTEM

This comprehensive project encompasses the meticulous analysis of a diverse sleep health and lifestyle dataset. Leveraging machine learning techniques, we have developed an innovative application capable of predicting stress levels. Beyond stress prediction, the application tailors personalized sleep schedules based on user-provided information, thereby promoting overall well-being, and fostering healthier sleep habits

OBJECTIVES

The main objective is to create a website which can perform the following features

- To develop a website
- Sleep health analysis
- Lifestyle factor analysis
- Cardiovascular health analysis
- Sleep disorder analysis
- To provide personalized sleep schedules based on all the information

REQUIREMENTS

HARDWARE REQUIREMENTS:

PC or Laptop

- Processor i5 or more
- 4GB RAM

SOFTWARE REQUIREMENTS:

OS: Windows 10 or 11

IDE: VS code

Database: PostgreSQL

Framework: Django Framework

Languages:

- Python for Backend
- HTML, CSS, JS & Jinja for frontend

MODULES

ADMIN

This module encompasses the administration functions and systems within the overall system, including data handling and user management.

USER

This module encompasses user registration, login, and all other user-related activities.

HEALTH RECORD

This module mainly encompasses the Dataset and the user data

MACHINE LEARNING

This module is related to the codes of Machine Learning and other functions related to it.