**Design and plan**

**Computer Science:**

**This project will consist of 6 main parts, User input, a data logging system, a data analysis system, a prediction model, interpretation functions and graphing functions**

1. The user will use the microbit and will have the data logged to firebase so that my model can use the info from each session to interpret it
2. A dataset will be added to the firebase so that there is data that can be interpreted in order to give the user an idea of how it is all laid out and are able to compare this against the researched recommended amount of exercise and sleep and see how it effects their productivity and mood
3. All the data at the given time will be analyzed and interpreted in both words and visually as to give the user the best chance of understanding the data

4.The website graphically, numerically and in written form shows the user their habits and recommendation on what would happen if they were to improve these habits

I started my project by researching other wellbeing apps and then deciding what feature would be helpful for a user who wants to improve wellbeing and productivity. I utilise the microbit to make it easy for user to input their sleep, steps, wellbeing and productivity. I also created a timer on the microbit so it will send every 24 hours which records each group of data as a day. My app is meant to act as a daily counter for user so they can track their sleep and exercise, see their daily averages, comparing their day of lowest and highest sleep and steps and then seeing the corresponding hours of productivity and mood. The user first tracks their information on the microbit which is then sent to a second microbit which prints the information to the firebase. This information is sent back to thonny where it is interpreted by getting averages, showing information for each day and recommendation on whether a user should increase or maintain there current sleeping and exercise habits and the effects of that current action.