



Group 46

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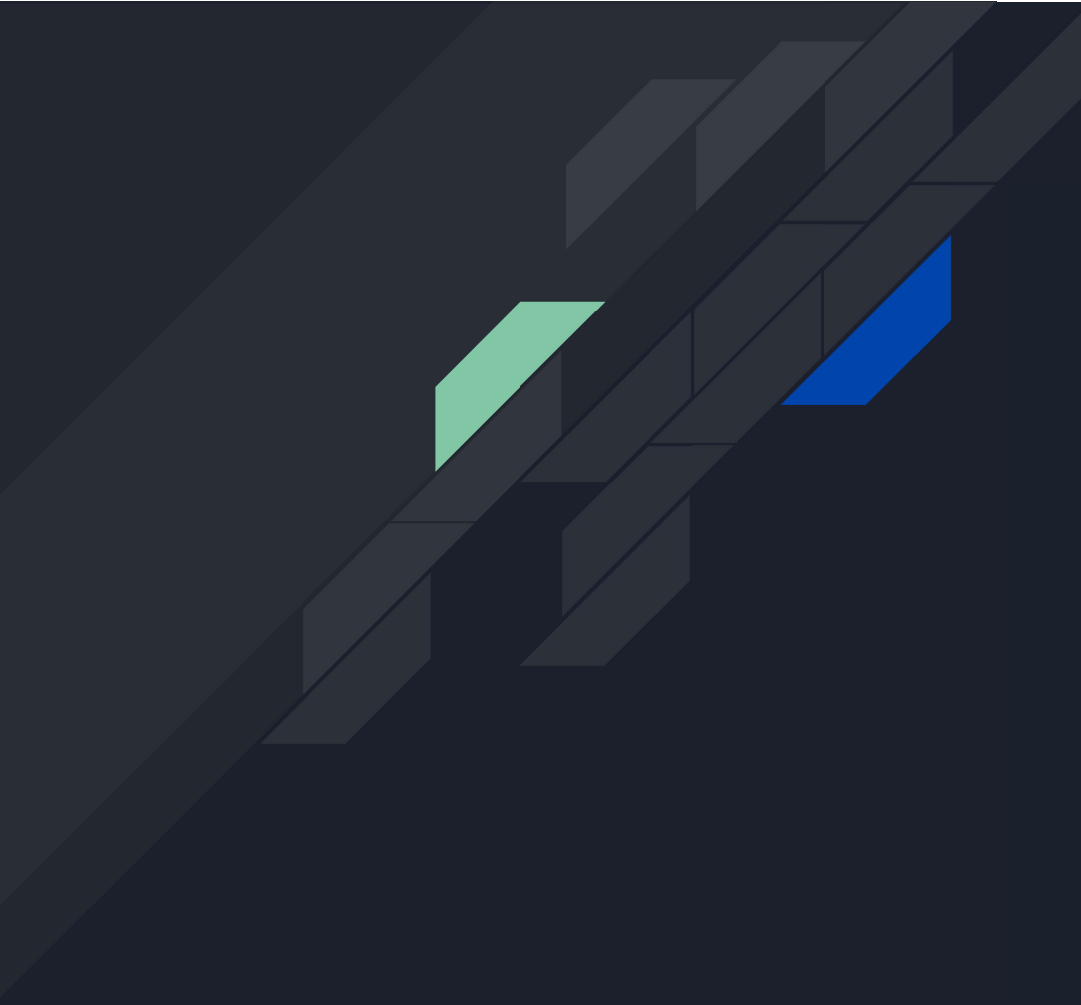
# Hardware Specification

| ID  | Priority<br>(1-3) | Requirement Description  |
|-----|-------------------|--|
| 003 | 1                 | The device will contain a compact ambient light sensor for recording ambient light in the room             |
| 005 | 1                 | The device will contain a compact accelerometer for recording motion during the night                      |
| 006 | 1                 | The device will contain a compact thermal sensor for recording device temperatures and monitor overheating |
| 007 | 1                 | The Bluetooth transceiver shall be able to connect with a mobile application                               |
| 008 | 3                 | The pillow will contain audio feedback capability. Output from 2 speakers in the pillow.                   |
| 010 | 1                 | The data received from the accelerometer will be transmitted to the app via Bluetooth                      |
| 011 | 1                 | The data received from the ambient light sensor will be transmitted to the app via Bluetooth               |

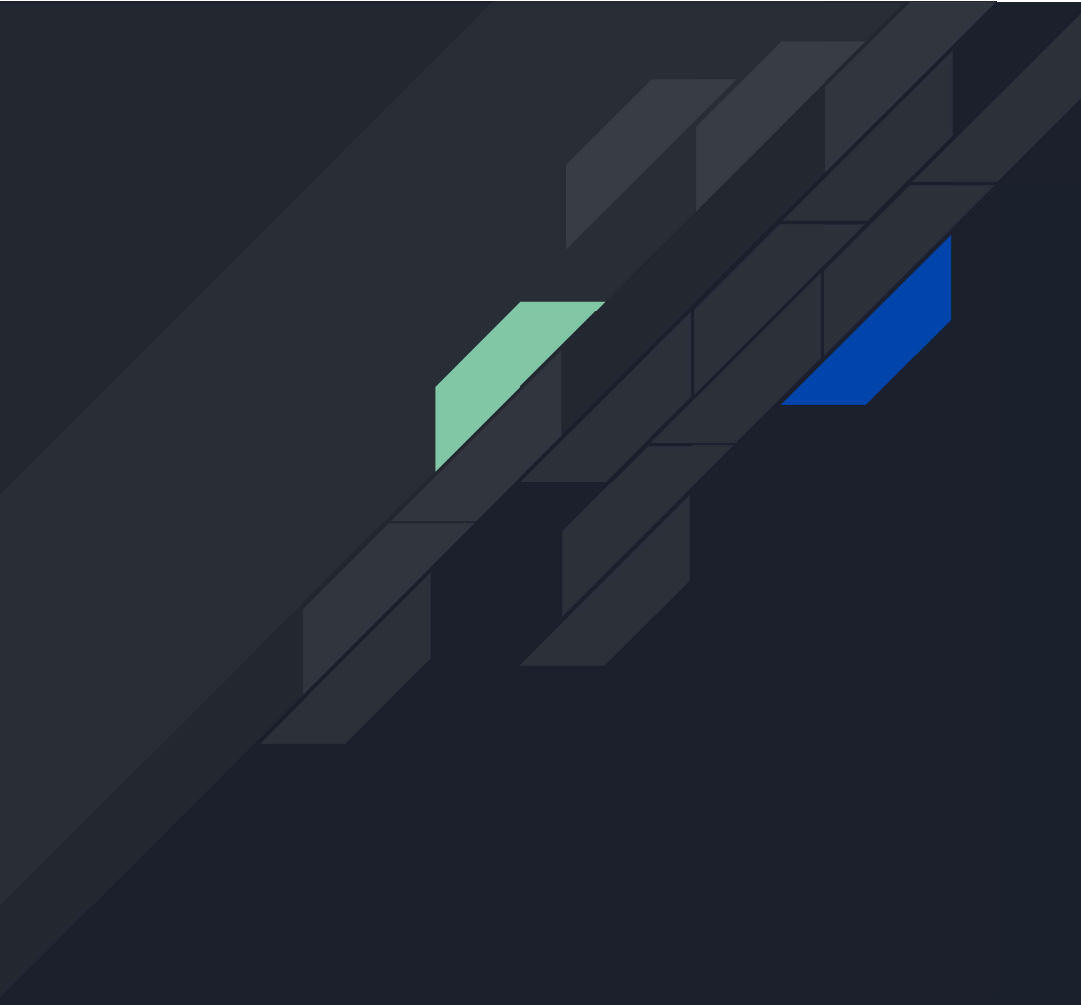
# Software Specification

| ID  | Priority<br>(1-3) | Requirement Description  |
|-----|-------------------|--|
| 010 | 1                 | The application will provide users with the ability to set an alarm  |
| 012 | 1                 | The application will allow users to play local music files and play ambient noise                            |
| 016 | 1                 | The application will use the data received from the pressure sensor to generate the user's sleep report      |
| 017 | 1                 | The application will use the data received from the ambient light sensor to generate the user's sleep report |
| 018 | 1                 | The application will use the data received from the accelerometer to generate the user's sleep report        |

# Project Demo



Dev Demo



# Conclusion

