

Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	4 November 2023
Team ID	Team-591086
Project Name	A sleep tracking app for a better night's rest.
Maximum Marks	4 Marks

Technical architecture:

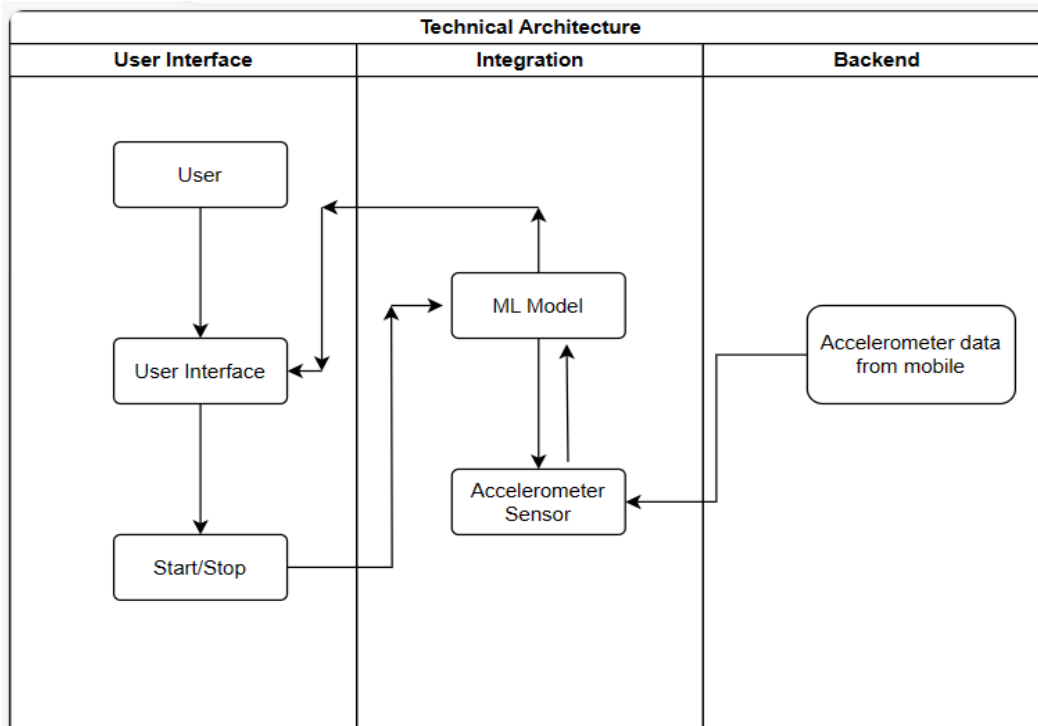


Table-1 : Components & Technologies:

Sr. No.	Component	Description	Technology
1.	User Interface	User interaction with Mobile app.	Kotlin, Jetpack compose
2.	Application Logic	Logic for a process in the application.	Kotlin, Jetpack Compose
3.	Database	Collect data from accelerometer sensor from mobile.	MySQL, NoSQL, Firebase
4.	Deep learning model	Track sleep time	Python, CNN

Table-2: Application Characteristics:

Sr. No.	Component	Description	Technology
1.	Open-source framework	List the open-source frameworks used	python
2.	Security Implementations	Use of firewalls	Encryption
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used
4.	Availability	Justify the availability of applications (e.g. use offloads balancers, distributed servers etc.)	Technology used
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used

References:

<https://c4model.com/>

<https://www.leanix.net/en/wiki/ea/technical-architecture>

<https://aws.amazon.com/architecture>

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>