

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

Date	03 October 2022
Team ID	PNT2022TMID02457
Project Name	Project - A child safety monitoring system
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2.

Reference: https://www.researchgate.net/publication/343712876_IOT_BASED_CHILDREN_MONITORING_SYSTEM_IN_SCHOOL

Technical Architecture:

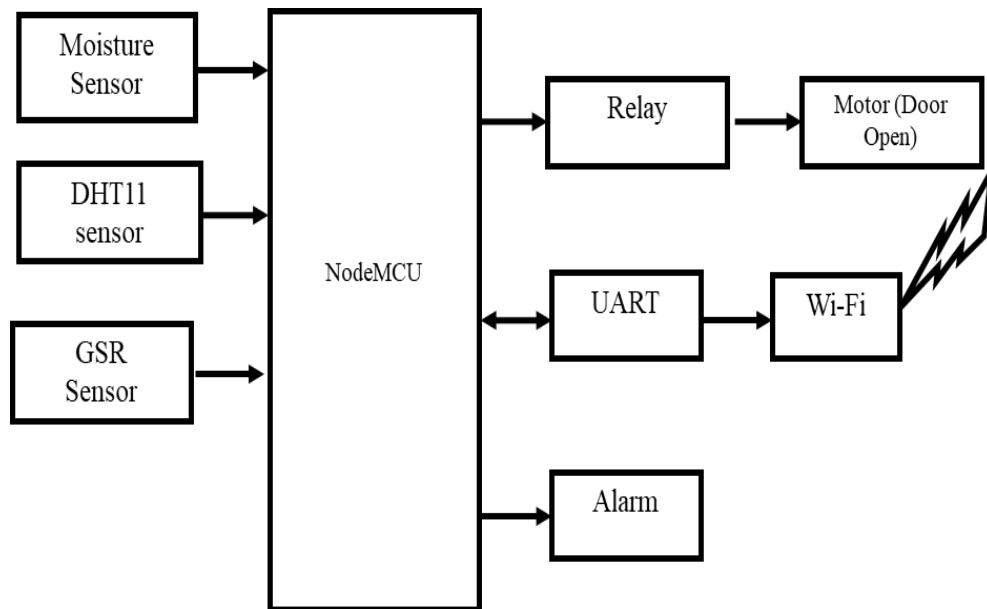


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The communication protocol being used in the proposed solution might act as an interface the way like WiF and Bluetooth.	MIT app
2.	Application Logic	The data to be collected and sent to the authenticator's(parent) via GSM providing the GPS to easily locate and monitor the child	Python
3.	Database	Data to be segregated and secured in the form of relational DBMS	My SQL
4.	Cloud Database	IBM	IBM Cloudant
5.	File Storage	File storage requirements	IBM Block Storage and Local Filesystem
6.	External API	To identify the child location	GPS Tracking System.
7.	Infrastructure (Server / Cloud)	Cloud Local Server Configuration and Local System Server.	Cloud Foundry

Table-2: Application Characteristics:

S.N o	Characteristics	Description	Technology
1.	Open-Source Frameworks	It is used in Android System for easy accessibility and GPS is used to locate the child	UI design development
2.	Security Implementations	The developed application should be accessible in the way it can only respond to the comments of the relevant users	Encryptions
3.	Scalable Architecture	The app is easy to operate.	Not yet determined

4.	Availability	The developed solution tends to be available in the market at any time	Not yet determined
5.	Performance	Highly proper and betterment functionalities are to be ensured in the designed solution.	Not yet determined

References: https://www.researchgate.net/publication/343712876_IOT_BASED_CHILDREN_MONITORING_SYSTEM_IN_SCHOOL <https://nevonprojects.com/child-monitoring-system-app/>
<https://www.irjet.net/archives/V7/i6/IRJET-V7I6756.pdf>