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

Date	03 October 2022
Team ID	PNT2022TMID50079
Project Name	IoT Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	4 Marks

Technical Architecture:

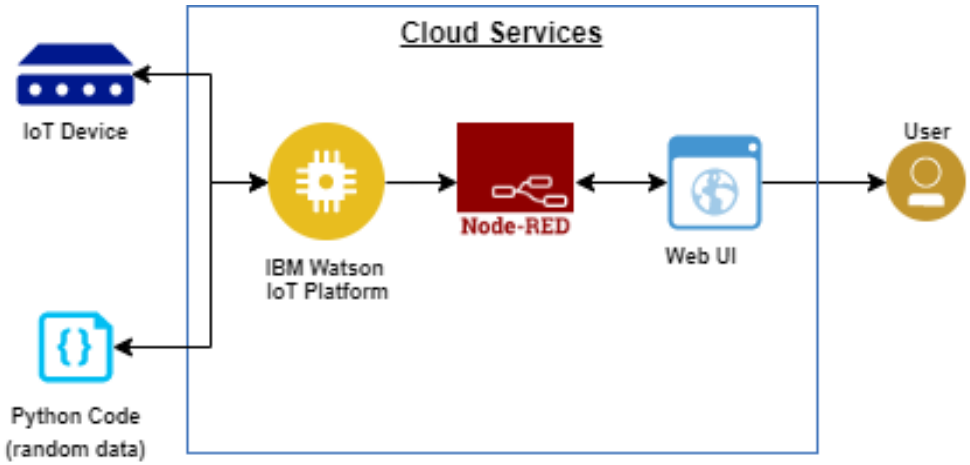

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	Wi-Fi,GPS
2.	Application Logic-1	Logic for a process in the application	Python IDLE

3.	Application Logic-2	Logic for a process in the application	IBM Watson service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Cloud service
5.	Database	Data Type, Configurations etc.	Cloudant DB
6.	Cloud Database	Database Service on Cloud	MySQL,NoSQL
7.	File Storage	File storage requirements	Stored Area Network (SANs)
8.	External API-1	Purpose of External API used in the application	Location Tracking
9.	External API-2	Purpose of External API used in the application	Health Tracking
10.	Machine Learning Model	Purpose of Machine Learning Model	Inter Quartel Range Model
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Think speak
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	information sends only authorised person
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	To help parents locate their child with ease
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	Available in Geofence
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN’s) etc.	Monitor & track the child