

Project Design Phase-I Solution Architecture

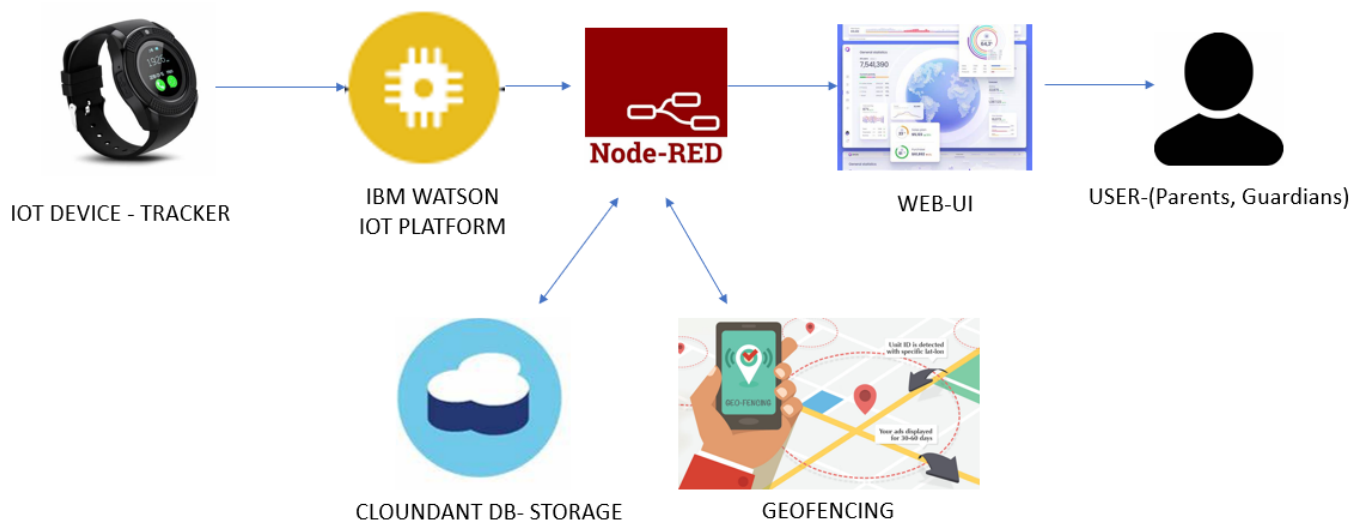
Date	19 September 2022
Team ID	PNT2022TMID14810
Project Name	Project - IoT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

Solution Architecture Diagram:



Features in device:

1. **ALARM RING:** The safety system redirects a warning to the phone at any occasion, it determines any pursuit. Arming methodology decides which category of alerts to get.
2. **EMERGENCY NOTIFICATION:** An emergency notification system is a labour-saving mechanism to get in touch with group of people within a corporation and assign salient information during a crisis.
3. **GPS:** The GPS helps to escalate the protection and fitness characteristics on the device. Depending on the device, it can alert parents about their child's location in case of any crisis and helps to trace their route duration and distance.

SOLUTION REQUIREMENTS:

The requirements of this project are,

- Watson Cloud workspace for depository and APIs
- The front end by XML for android
- Python framework
- Node Red platform

IMPLEMENTATION:

The implementation is done and executed by progressing the logic and coding. Where the vital packages are imported and for each router specific logic is developed in accordance to the usage. Development of a safety device for kids to guarantee their security in the absence of understated examination of their parents. The various aspects involve: GPS Signal by Notification to parents, Health monitoring of children, notification to parents,guardians,near by police station.

DESIGN:

All the requisite are used to draft the Application. The layout and architecture of the software are done in a distinctive approach so the software can be employed and developed imminently. The Arduino acquires the region from the GPS equipment and consigns it to the cloud to inspect if the end user is within the confined zone. If the user is further away from the confined zone, an alert is sent to the catalogued mobile through the cloud. When the requisition is opened, the locality is obtained from the cloud and unveiled on the mobile.

CONCLUSION:

The solution architecture of IOT Based Safety Gadget for Child Safety Monitoring & Notification has been done successfully