

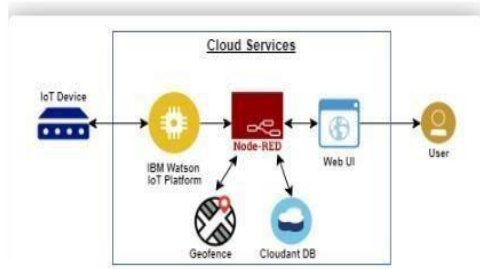
## Project Design Phase-I

### Proposed Solution

Date	07 OCT 2022
Team ID	PNT2022TMID30936
Project Name	IoT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	2 Marks

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	A parent has to ensure the safety of his child from anywhere in case of need

2.	Idea / Solution description	<p>Three Steps:</p> <p><b>1.Location tracking</b></p> <p><b>2.Mapping the coordinates</b></p> <p><b>3.Send message to parents</b></p> <p>Step 1 generally requires a GPS module and the coordinates need to be updated periodically</p> <p>Here we are going to use an assumed longitude latitude location in python code</p> <p>Step 2 is done using world map node in NODE RED app facility in IBM Cloud that maps the coordinates on map as a pin location</p> <p>This location is also fed to geofence node that checks whether the location is within the radius or not</p> <p>Step 3 ensures message is shown if location is not inside geofence area</p> <p>For real world application GPS module can be given to children in form of watch or any other sophisticated gadget</p>
3.	Novelty / Uniqueness	<p>Parents will receive accurate location anytime anywhere (they will know if the child is in the geofence or not)</p>

4.	Social Impact / Customer Satisfaction	<p>Child Safety will be within reach for the parents</p> <p>Gadget will be childsafe and environment friendly</p>
5.	Business Model (Revenue Model)	<p>Technical Architecture:</p>  <p>The diagram illustrates the technical architecture of the system. It shows an IoT Device connected to the IBM Watson IoT Platform. The IBM Watson IoT Platform is connected to Node-RED, which in turn is connected to the Web UI. The Web UI is connected to the User. Additionally, the IBM Watson IoT Platform is connected to Geofence, and Node-RED is connected to Cloudant DB. The entire system is labeled as Cloud Services.</p>
6.	Scalability of the Solution	<p>Requires proper internet connection for working with cloud</p>