**PROJECT OBJECTIVES**

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| Date | 10 November 2022 |
| Team ID | PNT2022TMID37952 |
| Project Name | Project - IoT Based Safety Gadget for  Child Safety Monitoring and Notification |

**PROJECT OBJECTIVES**

The Objectives as,

* Enable tracking of the child’s location and capturing of data remotely such as where the child location, distance etc..

* To show the child’s actual data with reference values.

* Enable sending of notification if the child is out of location or when the device realizes abnormal conditions.

* Develop a prototype of IOT wearable smart band connected to parent’s mobile apps so that they can monitor the actual of children at anytime and anyplace.

**By the end of this project:**

* Gain knowledge of Watson IoT Platform.
* Connecting IoT devices to the Watson IoT platform and exchanging the sensor data.
* Gain knowledge on Cloudant DB.
* Gain Knowledge of geofence.
* Creating a Web Application through which the user interacts with the device.

**Project Flow:**

* The GPS coordinates of the child will be sent to the IBM IoT platform.
* Location can be viewed in the Web Application.
* A parent can create a geofence in the web application.
* The web application will check if the child is inside or outside the geofence.
* Notifies the parents if the child goes out of the geofence.

To accomplish this, we have to complete all the activities and tasks listed below:

* Create and configure IBM Cloud Services.
* Create IBM Watson IoT Platform
  + Create a device & configure the IBM IoT Platform. Create Node-RED service
  + Create a database in Cloudant DB to store location data
* Develop a web Application using Node-RED Service.
* Develop the web application using Node-RED
* Integrate the geofence & google map
* Develop a python script to publish the location details to the IBM IoT platform.