PROBLEM SOLUTION FIT:

1.Customer Segments:
-Parents of 0-10 year old children

-Guardians of children

-Caretakers in educational institutions

2.Jobs to be done/problem:
-To continuously monitor child's location for their safety

-To create a geofence around a particular location

-To send notifications about the child's location to parents or caretakers

-To keep a record of the location history

3.Triggers:
To inform parents or other caregivers of the child's whereabouts when the child crosses the geofence

4.Emotions:before/after:
Before : The parent doesn't know about the child's whereabouts and their safety which makes them anxious

After : When a parent learns that their child has crossed the geofence, they use this program to pinpoint the child's whereabouts and feel reassured.

5.Available solutions:
Child safety wearable device - The purpose of this device is to help the parents to locate their

children with ease. At the moment there are many wearable's

in the market which helps to track the daily activity of children

and also helps to find the child using Wi-Fi and Bluetooth

services present on the device.

Merits: This wearable over other wearable is that it can be

used in any phone and it is not necessary that an expensive

smartphone is required and doesn't want to be very tech savvy

individual to operate.

Demerits: As, this device's battery gives short life-time. High power efficient model will have to be used which can be capable of giving the battery life for a longer time.

6.Customer constraints:

-Cost issues

-Internet connectivity

-Network availability

-Device compatibility

-GPS

7.Behaviour:

The parent can keep track of the child′s location and their actions from the notifications received.

The parent can also set up a geofence which when crossed alerts the parent so that they can take the necessary action

8.Channels of behaviour:

Offline :

After monitoring the child′s movements, the customer travels to the designated spot each time the child leaves the geofence.

Online:

The consumer has access to the location of his or her child and continuously monitors them.

When an unusual activity takes place, the client is notified.

9.Problem root cause:

-Missing child cases

-Accidents to children due to absence of adult supervision

-Child trafficking

10.Your solution:

A child safety device which consists of inbuilt Wi-Fi, GSM, GPS and Bluetooth modules. Different components such as temperature sensor, heartbeat sensor, panic button, contact switch are connected to the link it ONE board along with built in GSM, GPS modules. Temperature is one of the most commonly measured variables. For measuring body temperature of the child DS18B20 temperature sensor is used. The heartbeat sensor is used in the proposed system for measuring the pulse rate. There is a heartbeat/pulse sensor which is combined to simple optical heart rate sensor with amplification and nullification circuitry making it is fast and easy to get reliable pulse reading.