Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID25977
Project Name	IoT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Every 40 seconds, a child goes missing in this world, which has an impact on the entire growth of the nation. A smart band has been proposed to monitor the **safety of children using IoT technology**. Parents know what is happening remotely and can take action if something goes wrong. This project enables parents to easily monitor their children in real time just like staying beside them, as well as focus on their own career without any manual intervention. In this system, the collected values from every sensor and the location value from GPS are used to detect the status of the child and alert the respective guardians using GSM accordingly.
2.	Idea / Solution description	Our project is Iot based safety gadget for child safety monitoring and notification. This project is about **tracking the child's location** by setting geofences and also using **GPS tracker** in wearable bands. This wearable smart band is waterproof, chargeable and it as equipped with sensors.
3.	Novelty / Uniqueness	Along with those features the smart band is also equipped with sensors to monitor the child's health conditions. **Heart rate sensor** measures pulse rate and BPM. Altimeter detects changes in height and sense whether children are going down a slope or climbing stairs, thereby measuring calorie count.
4.	Social Impact / Customer Satisfaction	Impact is the desired long-term change in people's lives. Globally, the expected impact of UNICEF's work on child protection is improved and equitable prevention of and response to violence, abuse, exploitation and neglect of children. This implies a reduction in the prevalence of violence against, and the abuse, exploitation and neglect of children.

5.	Business Model (Revenue Model)	This device's primary target audience is parents. Considering the device's **tracking capability, hardware quality, technology** used, and sensors the device rate is made. This type of wearable safety system is critical today and would be a must-have item on the market.
6.	Scalability of the Solution	The main objective of this proposed model is to track children's safety from violence and health status. As a result, message communication to the proper destination plays a critical role. A significant improvement would be to send the **alert message** only to their **parents and caretakers**.