# PROJECT DESIGN PHASE-1

## PROPOSED SOLUTION TEMPLATE

| Date | 24/09/2022 |
|---|---|
| Team ID | PNT2022TMID34911 |
| Project Name | IOT based Safety Gadget for Child Safety Monitoring and Notification |
| | |

| S.NO | PARAMETER | DESCRIPTION |
|---|---|---|
| 1 | PROBLEM STATEMENT | Child missing and kidnapping rate has increased rapidly. Parents couldn't find those missing kids. In order to tackle such situations child tracking gadget is designed. Child safety is becoming an increasingly important issue. Parents are concerned about the security of their children every second they are away from them. The busy and stressful lives we lead makes it difficult to follow the kids and keep a track on them by constantly asking for minute-to-minute updates. Even after paying immense attention to their activities or leaving them with ultra-vigilant babysitters, it is very much possible to lose track of the kids. |
| 2 | IDEA/SOLUTION DESCRIPTION | To see your child's day to day activity tiny GPS tracker should be attached to the child. Child tracker helps the parents in continuously monitoring the child's location. They can simply leave their children in school or parks and create a geo |

| | | fence around the location. By continuously checking the child's location notifications will be generated if the child crosses the geo fence. Notifications will be send according to the child's location to their parents or caretakers. The entire location data will be stored in the database. Child also initiate emergency notification to the parents in case of unsafe situation. Child can get parent's attention with a simple button. This gadget is developed using stack of technologies such as Bluetooth Low Energy, WiFi, GPS SOC's, Google map services, SMS notifications and software is created using clould services like IBM Watson IOT, Node Red, Web UI, geo fence and cloudant DB. Application is developed to monitor the child's activity using Python script. |
|---|---|---|
| 3 | NOVELTY/UNIQUENESS | Track, locate & monitor your kids 24/7 anytime anywhere. Our GPS tracking system provides an instant alert if in case your children leave assigned safe zones. Mostly parents worried about their children safety if they are going to school or outside. By using Kids GPS Tracker you can know every movement of your children with the exact location. Generally, a Child's GPS Tracker reports any potential dangers and protects them in the process. It acts as a communication tool for parents and can be helpful even when traveling. Usually, children tend to wander a lot. With the help of GPS Tracking devices, you can easily and quickly know where your children are. Get travel details of kids at any time |

| | | Parents will get all the details like their kid boarding/de-boarding school bus. Also, they can get emergency alerts when the child fails to board or de-board at the other stop. Our GPS trackers have an emergency call button. In case your kids are in any danger, just they need to do is press the button to connect to you. It will be on alert state and a notification will be sent to family members. Parents can receive alerts, notifications or messages about the child's whereabouts. Even if there is any traffic jam, break down, parents will get a warning helping to take necessary actions and precautions. Track your child even in a crowd, prevent abduction and let your children play and walk around safely. Our device can track a children's location as well as allow parents to set up a safe zone for their kids. Guest service desks can be surpassingly packed with a long line up and are busy helping parents find lost children in the crowds. When the child has really wandered off, it can take two hours to locate them. That's not only upsetting for a parent and child, it's stressful for staff and service desks and leads to a bad experience. But our tracking device tracks the child's location within few seconds. And if the parents are busy with their work they can access history to view their child's activity later at any time because each and every activities will be stored in the cloud. |
|---|---|---|
| 4 | SOCIAL IMPACT/CUSTOMER SATISFACTION | When parents track children, they help companies maximize their profits. Should a child's information become de-anonymized and fall into the wrong hands, this could |

| | | put one's child at risk. There will undoubtedly be an impact on children's behaviour and development if they think that they are constantly monitored by their parents. Improved safety index of places, provides freedom for the children with special needs. Reduces child kidnapping, child missing and abusements. Its helps parents to be stress free knowing that their child must be safe. This gadget can only be used in online mode. |
|---|---|---|
| 5 | BUSINESS MODEL | This product can be sold directly to the parents. It can either be purchased from the market directly or it can also be purchased from online marketing. The product can also be sold to the child care centres. This product is very useful to the working parents who don't have time to monitor their children with special care. It is very useful for differently abled children. |
| 6 | SCALABILITY OF THE SOLUTION | This device is easy accessible by any user. It can track even very long distances. The device is designed in such a way that it is simple and compact. It is a light weight handy device which can be carried along with the user wherever he/she goes and whenever he/she needs. Due to the access of cloud services the child's daily activity can be viewed in the history at any time. The use of this gadget by the user cannot be found by any other strangers. This gadget can be used anytime by recharging it. |