INDEX

INTRODUCTION

1.1 PROJECT OVERVIEW

This is a project based on IOT (Internet of Things).As we all know, kids are the heartbeat of every parent and when it comes to a child with special needs, parents have to be extra careful. They have to take extra care of their child. Child tracker helps the parents in continuously monitoring the child's location. They can simply leave their children in school are park and create a geofence around the location. By continuously checking the child's location notification will be generated if the child crosses the geofence. Notifications will be sent according to the child's location to their parents or caretakers. The entire location data will be stored in the database. Child can also initiate emergency notifications to the parents incase of unsafe situation. The GPS coordinates of the child will be sent to the IBM IoT platform. The web application will be developed using Node-RED service to integrate geofence and google map. 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. A cloudant databse is created to store all the related data. A smart band is created which comprises of GPS and GSM module.

1.2 PURPOSE

The purpose of this gadget is to notify parents and the police of a child's current location whenever they are in a perilous scenario. It assists parents to monitor their children remotely. In case situations happen, notifications will be sent to parents so that actions can be taken. Through this, child safety can be ensured and crime rate will be reduced. It makes parents to easily monitor their children in real time just like staying at their place. The device has IoT monitoring and a GSM module that allows the child to be monitored at all times. It also has numerous sensors that are connected to a CPU and are used to detect exact signals such as heart rate, temperature, and other dangers and alert the parents.

LITERATURE SURVEY

2.1 EXISTING PROBLEM

[1] Smart IOT Device for Child Safety and Tracking: M Nandini Priyanka, S Murugan, K N H Srinivas, T D S Sarveswararao, E Kusuma Kumari.

Child safety and tracking is a major concern as the more number of crimes on children are reported nowadays. With this motivation, a smart IoT device for child safety and tracking is developed to help the parents to locate and monitor their children. The system is developed using LinkIt ONE board programmed in embedded C and interfaced with temperature, heartbeat, touch sensors and also GPS, GSM & digital camera modules. The novelty of the work is that the system automatically alerts the parent/caretaker by sending SMS, when immediate attention is required for the child during emergency. The parameters such as touch, temperature &heartbeat of the child are used for parametric analysis and results are plotted for the same. The above system ensures the safety and tracking of children.

[2] IoT Based Smart Gadget for Child Safety and Tracking: N. Manjunatha , H. M. Jayashree , N. Komal , K. NayanA

This paper is mainly streamed towards child safety solutions by developing a gadget which can be tracked via its GPS locations and also a panic button on gadget is provided to alert the parent via GSM module calling for help. Parental android app is developed to manage and track the device anytime. Smart gadget device is always connected to parental phone which can receive and make phone calls and also receive SMS on gadget via GSM module, also a wireless technology is implemented on device which is useful to bound the device within a region of monitoring range, if device is moving out of monitoring range then an alert will be triggered on binding gadget, this helps you keep a virtual eye on child. Health monitoring system on gadget checking for parameters like heart beat/pulse rate and temperature is included which can be monitored on parental app. Gadget also monitors whether it is plugged on hand or not using contact switch and alert the parent as soon as it is unplugged.

[3] Child Safety Monitoring System Based on IOT:N.Senthamilarasi, N.Dhivya bharathi, D. Ezhilarasi and R.B.Sangavi.

The overall percentage of child abuse cases filed nowadays in the world is about 80%, out of which 74% are girl children and the rest are boys. For every 40 seconds, a child goes missing in this world. Children are the backbone of one's nation, if the future of children was affected, it would impact the entire growth of that nation. Due to the abuse, the emotional and mental stability of the children gets affected which in turn ruins their career and future. These innocent children are not responsible for what happens to them. So, parents are responsible for taking care of their own children. But, due to economic conditions and the aim to focus on their child's future and career, parents are forced to crave for money. Hence, it becomes difficult to cling on to their children all the time. In our system, we provide an environment where this problem can be resolved in an efficient manner. It allows parents to easily monitor their children in real time just like staying beside them as well as focusing on their own career without any manual intervention.

[4] Child Monitoring and Safety System Using Wsn and Technology:P.Poonkuzhlai,R.Aarthi ,Yaazhini.V.M , Yuvashri.S , Vidhyalakshmi.G

This paper presents the design and implementation of a portable IOT-based safety and health monitoring system for children through a sensor embedded health monitoring device for safety and emergency services. It is known that the technological advancements are increasing at a faster pace. But the utilization of technologies in various sectors is very low. We know that people of different age group faces different difficulties. But the security for children‟s is very low. There is lot of cases registered regarding child safety. Nowadays, the schools and the parents are very much worried about their school children‟s for school transport and other places. So, the safety and monitoring the school children is very much difficult. In this project we are introducing the IOT based embedded system is used in this project. So we propose a system to continuously monitor the parameters of the child and also their location for safety purpose. The system provides smart child tracking and monitoring system.

2.2 REFERENCES

[1] Arun Francis G, Janani I, Kavya S and Ramiyadevi K. Child Safety Wearable Device Using Raspberry Pi. Waffen-UND Kostumkunde Journal. 11(2). 2020. pp.135-137.

[2] A. Helen, Kalaiselvi V.K.G, M. Fathima Fathila and R. Rijwana. A smart watch for women security based on iot concept ‘watch me’, International Conference on Computing and Communications Technologies (ICCCT). 2017.

[3] Alexey Vinel Feng Xia and Laurence T. Yang and Lizhe Wang. Internet of Things. International Journal of Communication Systems. 25(9). 2012. pp.1101-1102. DOI: https://doi.org/10.1002/dac.2417

[4] Anjum Khairi, M.U. Farooq, Muhammad Waseem, Sadia Mazhar and Talha Kamal, M.U. Farooq, Muhammad Waseem and Sadia Mazhar. A Review on Internet of Things (IoT). International Journal of Computer Applications. 113(1). 2015. pp.1-7. DOI: https;//doi.org/10.5120/19787-1571

[5] United Nations: Office on Drugs and Crime. Crime Prevention. 2020.

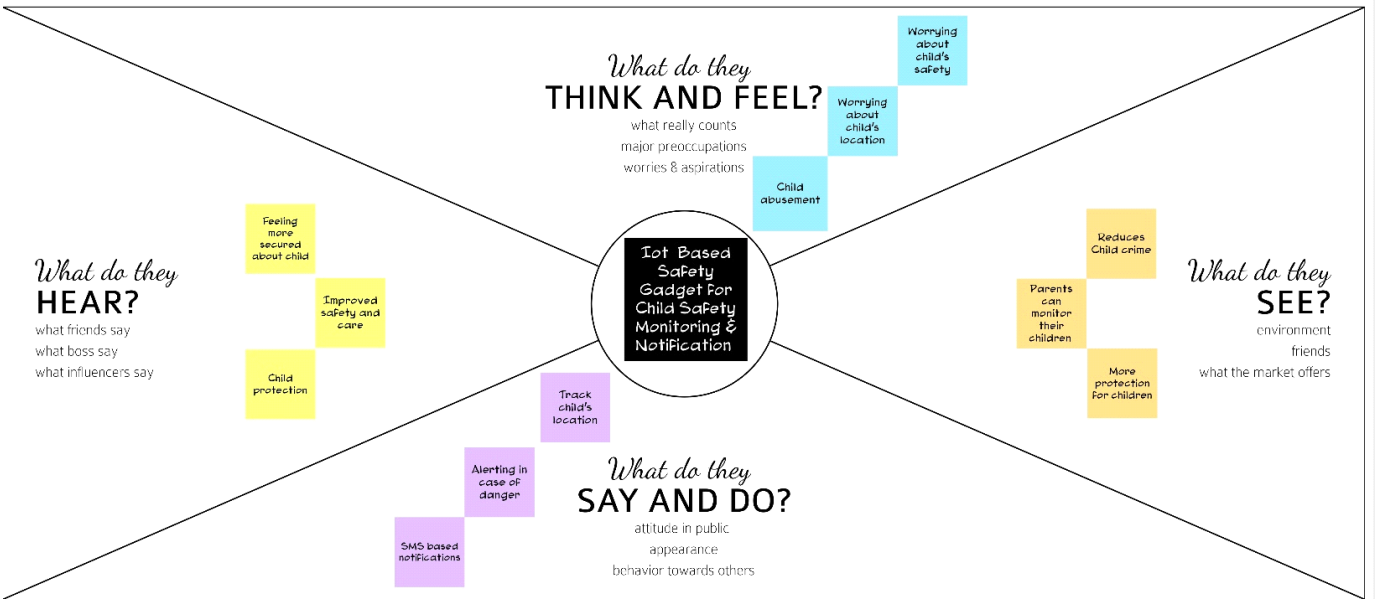
[6] K. Yu, Z. Guo, Y. Shen, W. Wang, J. C. Lin, T. Sato, “Secure Artificial Intelligence of Things for Implicit Group Recommendations”, IEEE Internet of Things Journal, 2021, doi: 10.1109/JIOT.2021.3079574.

2.3 PROBLEM STATEMENT DEFINITION

Nowadays due to job responsibilities and other commitments with respect to time, parent's are not concentrating in their child's growth and more importantly in child's safety. After a certain period of time, parents leave their children in school and leave for their responsibilities. As children are premature they don't know how to act in different places with different people accordingly in different situation. Nowadays unsafety situation for child may happen in different ways like child abusement and child missing. Due to lack of child monitoring child's behavior may affect. Children may prone to accidents. To encounter all these unsafety measures, Child monitoring should be done periodically along with monitoring child's location and checking is there any emergency!. The system will be more flexible and effective. The Child monitoring system will contain certain features like GPS location of child, an alert message to parents or guardian when the child crosses the geofence, an emergency message when the child is in trouble or uncomfortable situation and all these data should be made available anytime, anywhere.

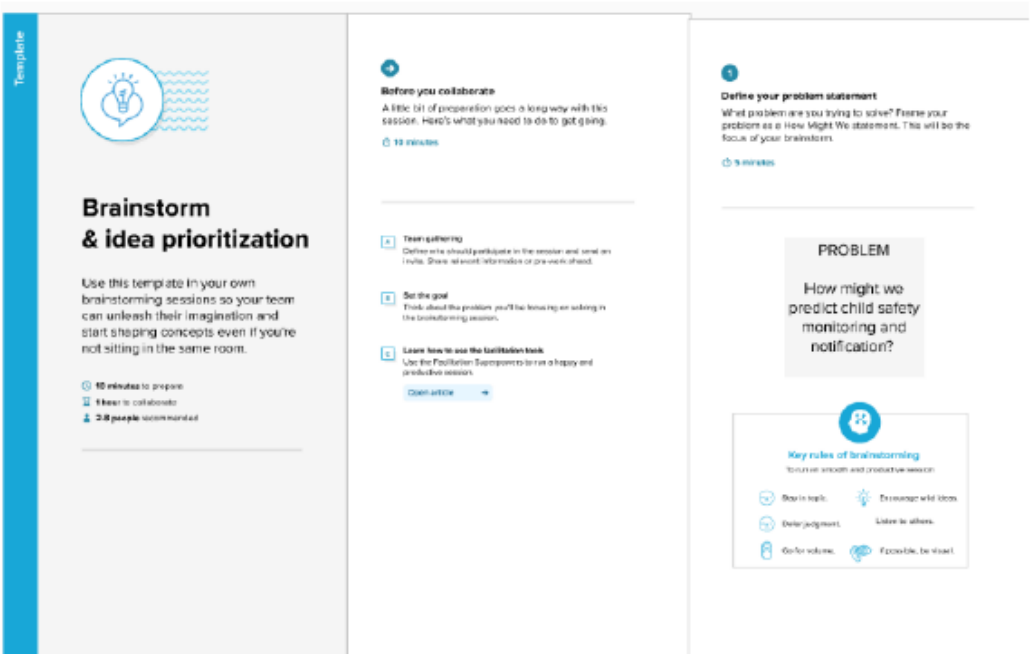
IDEATION & PROPOSED SOLUTION

3.1 EMPATHY MAP CANVAS

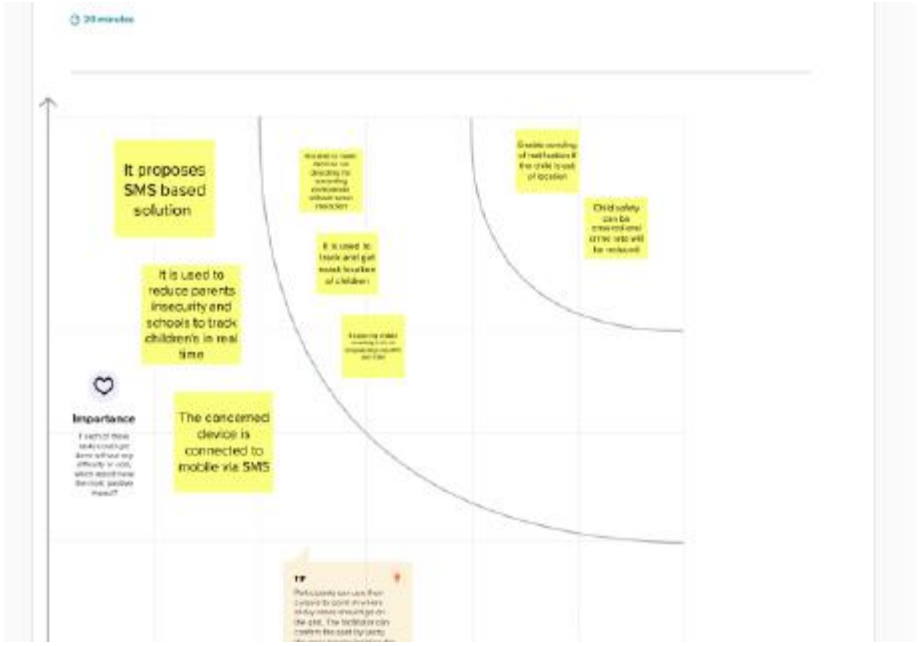


3.2 IDEATION & BRAINSTORMING

Step – 1: Team Gathering , Collaboration and Select the problem statement



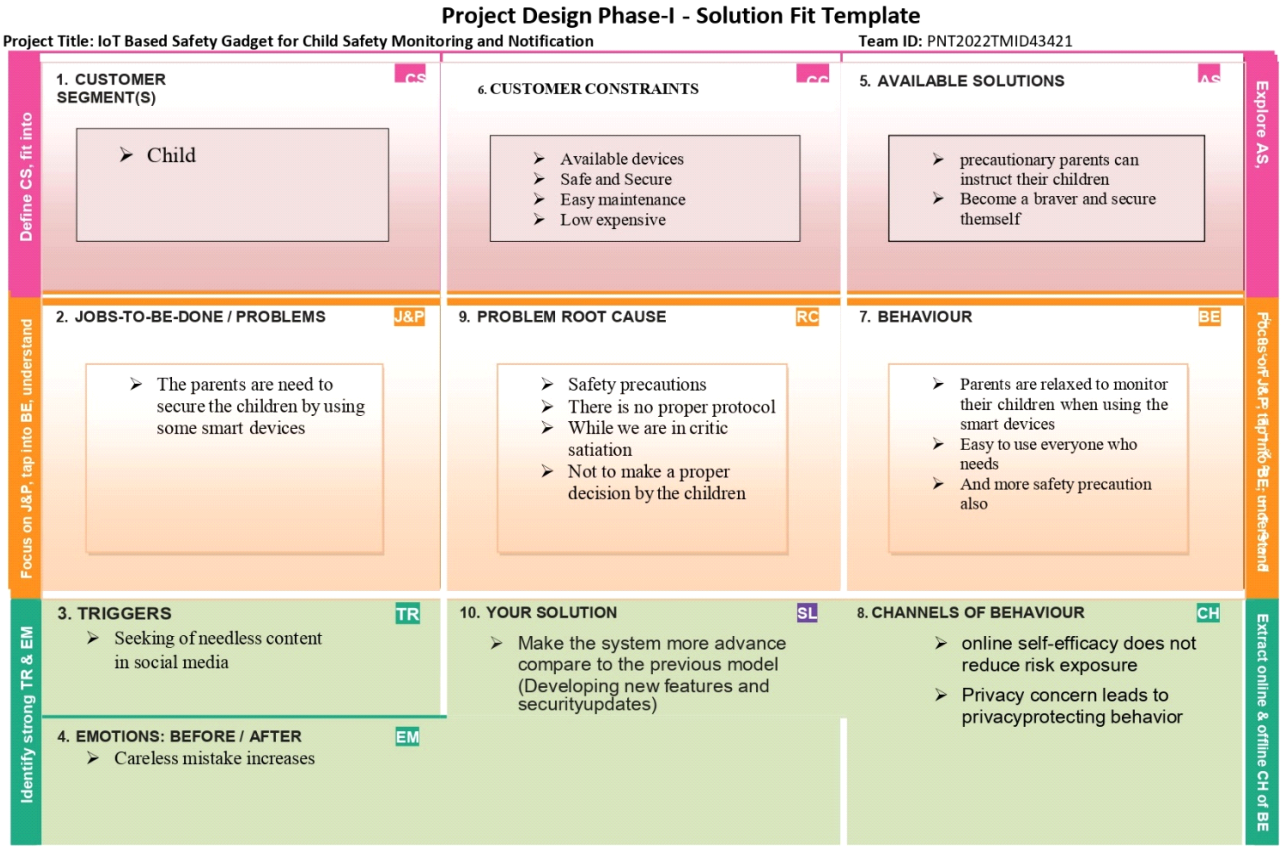
Step – 2: Brainstrom , Idea Listening and Grouping


It proposes SMS based solution
It is used to reduce parents insecurity and schools to track children's in real time
The concerned device is connected to mobile via SMS
Importance

3.3 PROPOSED SOLUTION

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Basically, child cannot complain about problems which they face in their day to daylife to their parents. They can't even realize what actually happens to them in their early age. It is also difficult for parents to identify their children are in trouble. Parents can't monitor their children 24/7
2.	Idea / Solution description	The solution for this problem is to create a child tracker device(Gadget) through which parents can monitor their child's locationanytime. An alert message will be sent to parents or guardian when the child crosses the geofence. An emergency button is given in the device to notify parents, when thechild is in trouble. All the data are stored in the database
3.	Novelty / Uniqueness	The novelty of the work is that the system automatically alerts the parent/caretaker by sending notification, when immediate attention is required for the child during emergency.
4.	Social Impact / Customer Satisfaction	The parents need not worry about their child's location and safety as they will get alert messages in case of any trouble.
5.	Business Model (Revenue Model)	The model of the gadget is wearable device. like watch. That consist the GPS to track the location of the person .The device is cost efficient, and easily wearable. Because the device was used by the person everyday.
6.	Scalability of the Solution	The scalability of the solution is that we canuse the gadget 24 hours that can sense and send the information to the parents and guardians in the right way and at the right time.

3.4 PROBLEM SOLUTION FIT



REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENT

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through website Registration through app
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User login	Setting up User Id and password
FR-4	App permission	Grant the permission for the app to access location, contact etc
FR-5	Interface with the Device	Connecting the device with the registered app with the device ID.
FR-6	Setting Geo-location	Get the map,Create the geofence,Store the geofence in db
FR-7	Database	Location history is stored in the cloud. Can be accessedfrom the dashboard.
FR-8	Tracking location	Tracking the location through app. Tracking the location through website.
FR-9	Receive emergency notificationfrom the child	Listen to child emergency notification API If notificationinitiated , notify the user

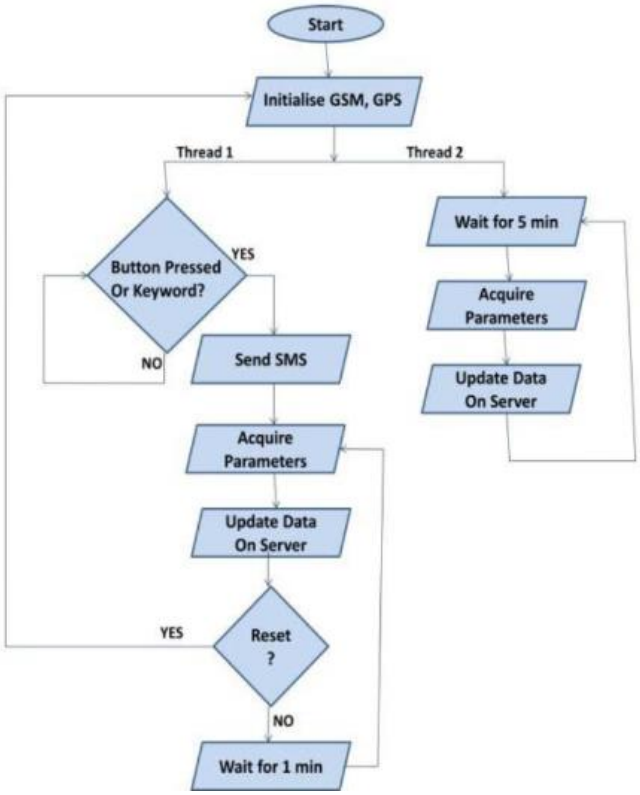
4.2 NON-FUNCTIONAL REQUIREMENTS

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Attractive and effective UI that gives complete enjoyable and user friendly experience.
NFR-2	**Security**	Providing permission for some information can onlybe decided by the user. Location data can only be viewed by the user.
NFR-3	**Reliability**	The APIs should be readily available to satisfy the users' needs.

PROJECT DESIGN

5.1 DATA FLOW DIAGRAM

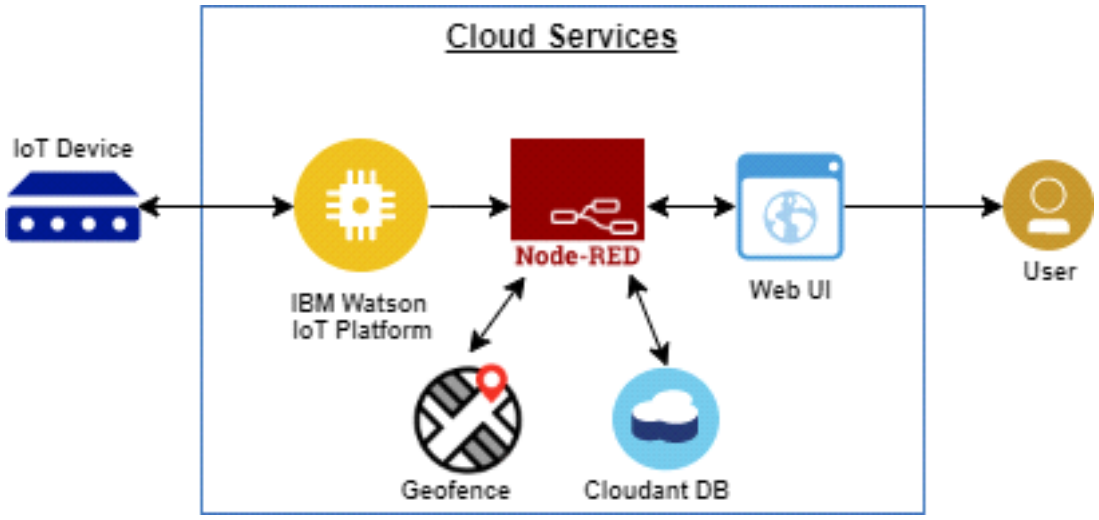
A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the rightamount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



5.2 SOLUTION & TECHNICAL ARCHITECTURE

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 geofence around the particular location. By continuously checking the child's location notifications will be generated if the child crosses the geofence. Notifications will be sent according to the child's location to their parents or caretakers.The entire location data will be stored in the database.

SOLUTION ARCHITECTURE:



5.3 USER STORIES

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application byentering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I	I can receive confirmation email & click confirm	High	Sprint-1

			have registered for the applicatio n			
		USN-3	As a user, I can register for the applicati on through Faceboo k	I can register & access the dashboard with Facebook Login	Low	Sprint -2
		USN-4	As a user, I can register for the applicati on through Gmail		Mediu m	Sprint -1
	Login	USN-5	As a user, I can log into the applicati on by entering email & password		High	Sprint -1
	Dashboard					
Customer (Webuser)	Login	Custo mer Care Execut ive	When I enter I can view the working of applications, scan and monitor the operations and check if all the users	I can only login with myown credentials.	Mediu m	Sprint -3

			are authorized			
Customer Care Executive	Login		Maintaining and accessing the database containing the locations are secure and accurateand update constantly	I can only login with myown credentials.	High	Sprint - 4
Administrator	Login		As a user I can register for the application byentering my correct credentials	I can able to access my account/dashboard	High	Sprint -2

PROJECT PLANNING & SCHEDULING

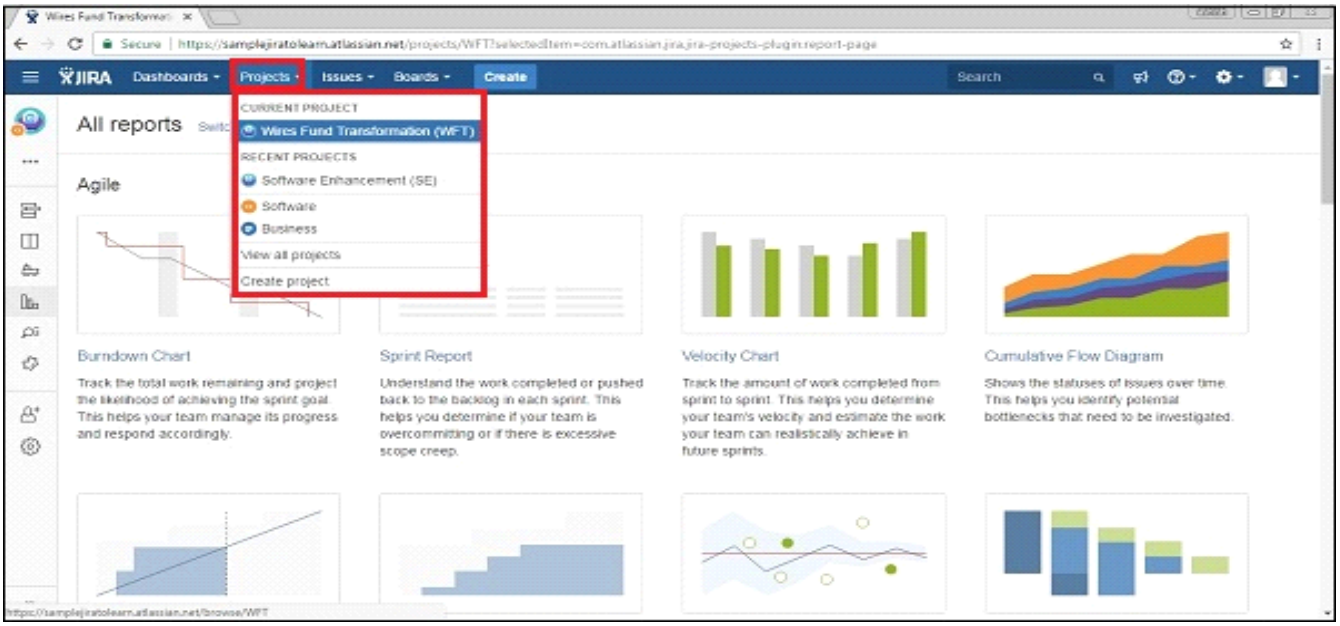
6.1 SPRINT PLANNING & ESTIMATION

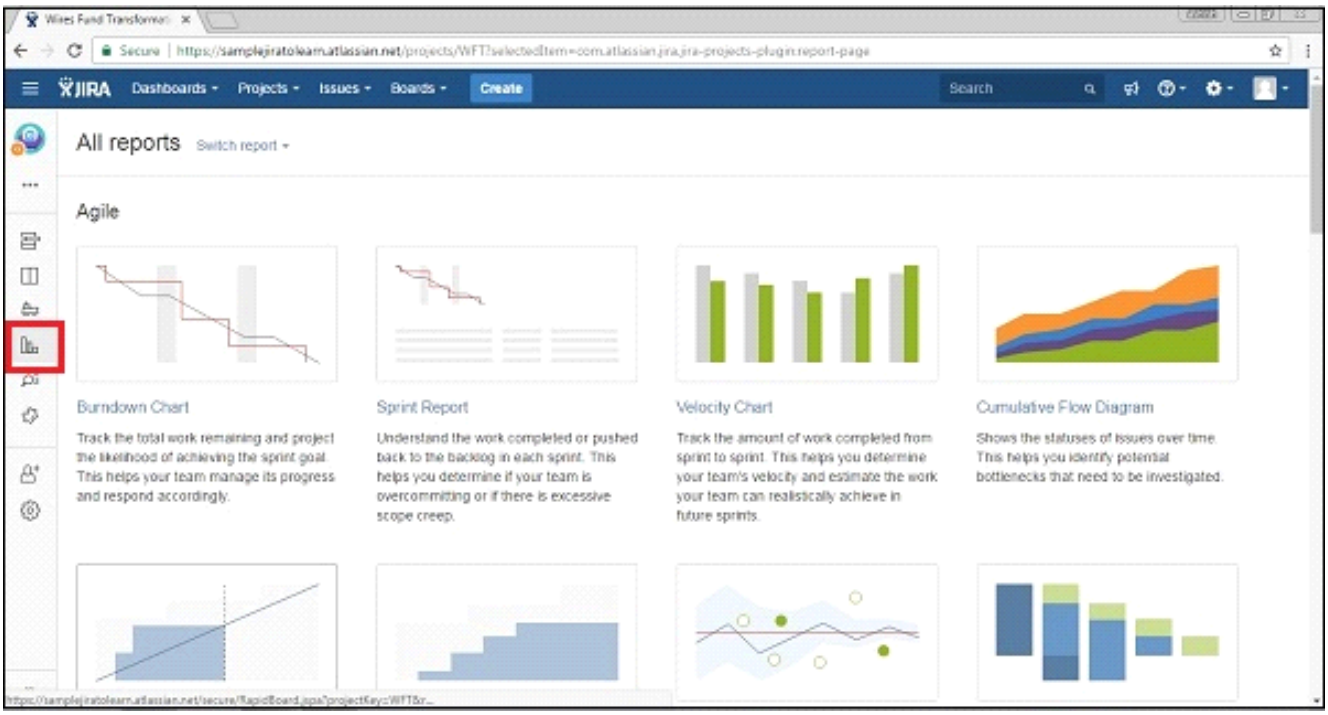
Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration (Username/Password)	USN-1	As a user, I can register for the application by entering my email, password, and confirmingmy password.	2	High	4
Sprint-1	Login	USN-2	As a user, I can log into the application byentering email & password	2	High	4
Sprint-2	Connectivity	USN-1	As a user I can connect the device via WIFI orLTE	2	Medium	4
Sprint-3	Location Tracking	USN-1	As a user I can see the location of my child	3	High	4
Sprint-3		USN2	As a user I can see my child's previous visited locations	2	Medium	4
Sprint-4	Geo fence Setup	USN-1	As a user I can set the geo fence for my child	3	High	4
Sprint -4		USN-2	As a user I get notification when my child is outside the safe zone	2	High	4

6.2 SPRINT DELIVERY SCHEDULE

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	4	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	2	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	5	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	5	19 Nov 2022

6.3 REPORTS FROM JIRA




Secure | https://samplejiratolearn.atlassian.net/projects/WFT?selectedItem=com.atlassian.jira.jira-projects-plugin:report-page
JIRA
Dashboards
Projects
Issues
Boards
Create
Search
All reports
Switch report
Agile
Burndown Chart
Track the total work remaining and project the likelihood of achieving the sprint goal. This helps your team manage its progress and respond accordingly.
Sprint Report
Understand the work completed or pushed back to the backlog in each sprint. This helps you determine if your team is overcommitting or if there is excessive scope creep.
Velocity Chart
Track the amount of work completed from sprint to sprint. This helps you determine your team's velocity and estimate the work your team can realistically achieve in future sprints.
Cumulative Flow Diagram
Shows the statuses of issues over time. This helps you identify potential bottlenecks that need to be investigated.

CODING AND SOLUTIONING

7.1 FEATURE 1

Login Page:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Login Page</title>
    <style>
        body{
            margin: 0%;
        }
        form{
            background-color:cyan;
            width: 45%;height:500px;
            border: 1px solid black;
            text-align: center;
            margin:auto;
            border-radius: 50px;
        }
        .names{
```

```
        font-size: 30px;
    }
    .input-wrapper{
        padding: 50px;

    }
    .texts{
        height: 44px;width: 200px;

    }
    .button{
        height: 30px;width: 150px; background-color:black;color: white;
    }
  </style>
</head>
<body>
  <form id="forms">
    <div class="input-wrapper">
    <h1 style="text-align:center">Login</h1>
    <label for="Username" class="names">Username</label>
    <input type="text" class="texts" placeholder="Type your username"
required><br><br>
    <label for="pass" class="names">Password</label>
    <input type="password" class="texts" placeholder="Type your password"
required><br><br>
    <p><a href="#"> forgot your password?</a></p>
```

```
      <a href="dashboard.html"> <input type="button" value="Submit" class="button">
</a>
      <br><br>
   </div>
   </form>
</body>
</html>
```

Dashboard:

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Dashboard</title>
   <style>
      body{
         margin:0%;
         background-image: url("images/child\ monitoring.jpg");
         background-size: cover;

      }
      #topbar{
         background-color:whitesmoke;
         height: 70px;
```

```
    width: 100%;


}
.head{
    font-size: 30px;
    font-family: 'Times New Roman', Times, serif;
    padding: 20px 40px ;
    position: absolute;
    color:red;



}

.head1{
   font-size: 25px;
    font-family:'Times New Roman', Times, serif;
    padding: 20px 10px ;
    position: absolute;
    color: rgb(10, 107, 110);
    left:1050px;
}
.head1:hover{
    color:red;
}
.head2{
```

```
    font-size: 25px;
    font-family:'Times New Roman', Times, serif;
    padding: 20px 50px ;
    position: absolute;
    color: rgb(10, 107, 110);
    left:1150px;
}
.head2:hover
{
    color:red;
}
.head3{
    font-size: 25px;
    font-family:'Times New Roman', Times, serif;
    padding: 20px  ;
    position: absolute;
    color: rgb(10, 107, 110);
    left:1300px;
}
.head3:hover{
    color: red;
}
.image{

    width: 200px;
```

```
    height: 200px;
    padding: 70px;
}

.text{
    color: red;
    font-size: 40px;
    padding: 100px;
    bottom:150px;
    position: relative;
    text-align:left;
    right: 80px;
}
.meter{
    height:40px;
    width:150px;
    position: relative;
    right:250px;
    bottom:18px;
}
.parent-item{
    display: flex;
flex-direction: row;
flex-wrap: wrap;
}
```

```
        #item{
            flex-basis: 33.33%;
        padding: 5px;
        box-sizing: border-box;
        }
    </style>
</head>
<body>
    <div id="topbar">

      <span class="head">CHILD SAFETY MONITORING SYSTEM</span>
      <a href="#"><span class="head1">Features</span></a>
      <a href="#"><span class="head2">Logout</span></a>
    </div >
    <div id="item">
        <img
src="https://tse3.mm.bing.net/th?id=OIP.0c5xHEMW5_RLtGNnCmFXhgHaE9&pid=Api
&P=0" class="image" alt="loc-image">
        <a href="https://node-red-lspwr-2022-11-17.eu-gb.mybluemix.net/worldmap/"> <h4
class="text">View Child's Current Location</h4></a>
    </div>
    <div id="item">
        <img src="https://assets.website-
files.com/5cb818e9bfadbe53aa4ed7e0/5e288d127e735f7ba2972e25_Geofencing.png"
class="image" alt="geofence">
        <a href="https://node-red-lspwr-2022-11-17.eu-
gb.mybluemix.net/red/#flow/c3b9a0e93dc0ded6"><h4 class="text"> Set
Geofence</h4></a>
```

```
    </div>
</div>
</body>
</html>
```

7.2 FEATURE 2

Function 1:

```
var name=msg.payload.name
var lat=msg.payload.lat
var lon=msg.payload.lon
global.set('latitude',lat)
global.set('longitude',lon)
global.set('name',name)
return msg;
```

Function 2:

```
msg.payload = {
    "name":global.get('name'),
    "lat":global.get('latitude'),
    "lon":global.get('longitude')
}
return msg;
```

Function 3:

```
msg.payload=msg.location.inarea
return msg;
```

Function 4:

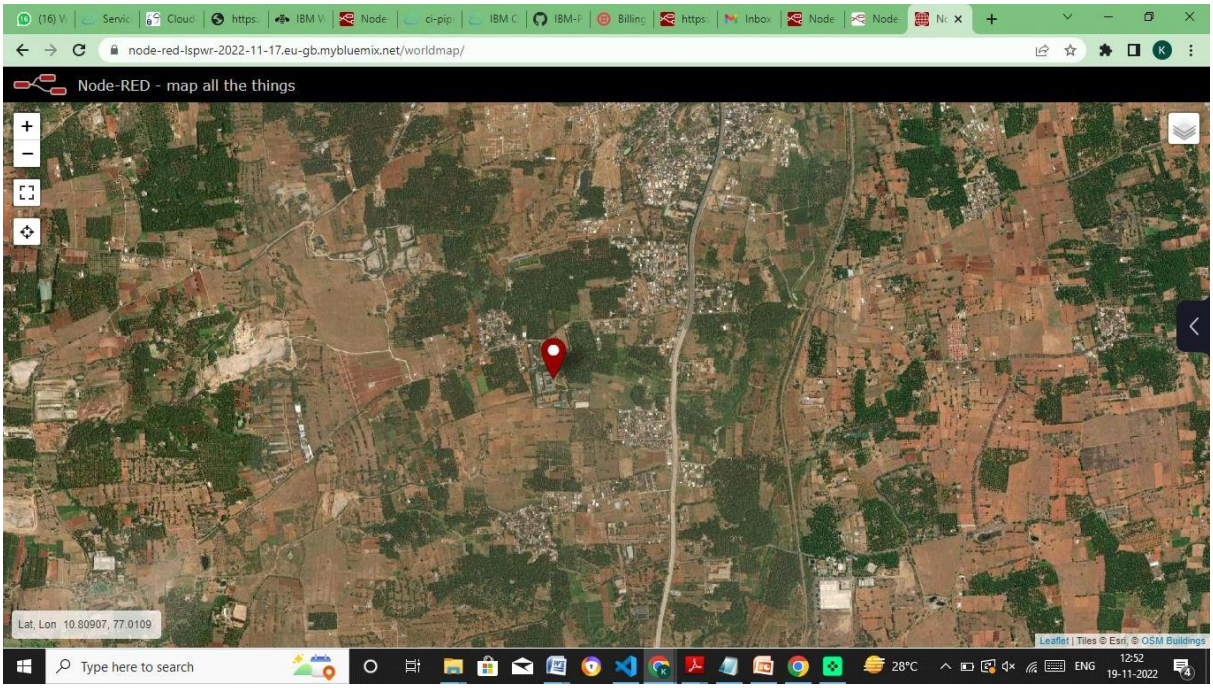
Code for alert message:

msg.payload="Alert"+":"+" Your child is outside the geofence. "+" https://node-red-lspwr-2022-11-17.eu-gb.mybluemix.net/worldmap/"

return msg;

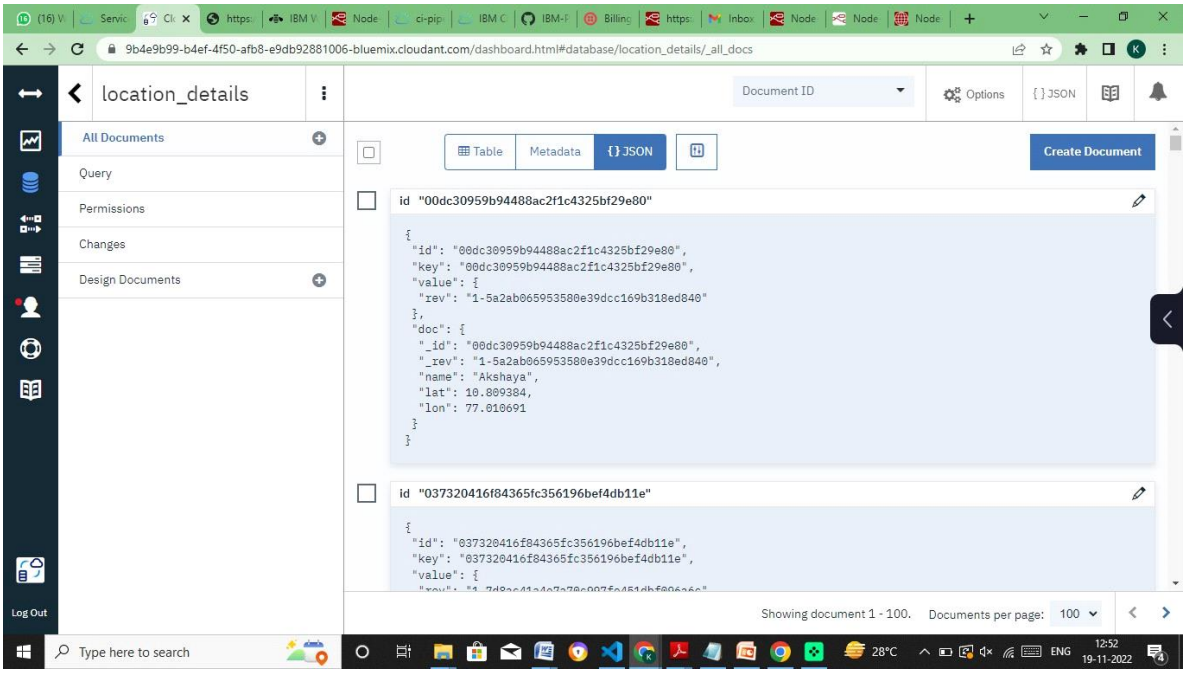
Function 5:

```
var d = new date();
var utc = d.getTime() + (d.getTimezoneOffset() * 600000);
var offset = 5.5;
newDate = new Date(utc + (3600000 * offset));
msg.payload = {
   "message" : "Exit",
   "Time" : newDate.toLocaleString(),
   "name" : global.get('name'),
   "lat" : global.get('latitude'),
   "lon" : global.get('longtitude')
};
return msg;
```



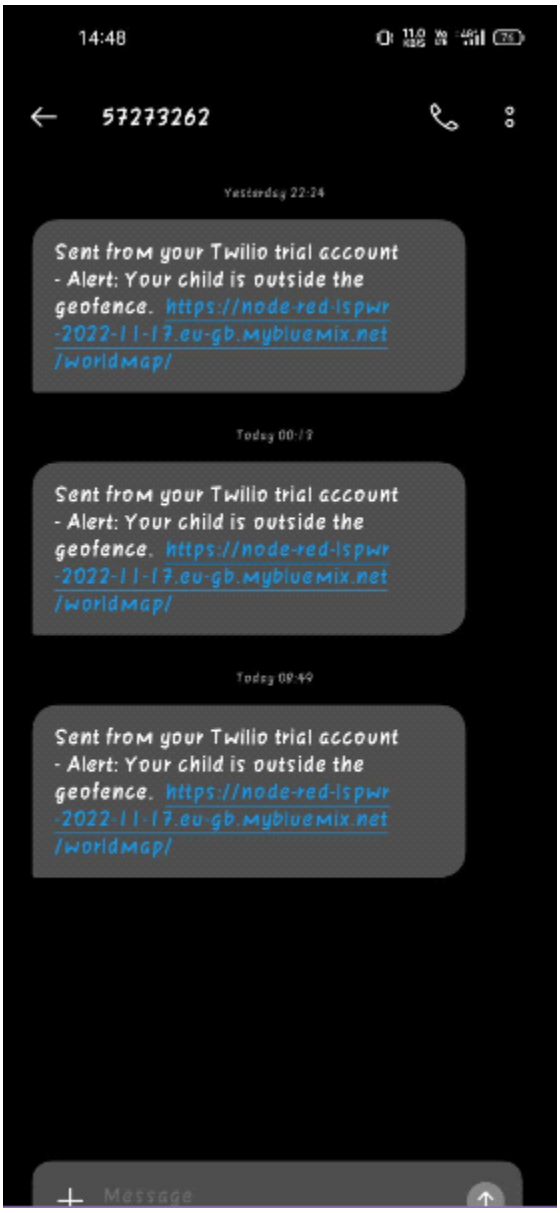
7.3 DATABASE SCHEMA

The name of the database is location_details, inside this we can view the locations of thechild visited



TESTING

8.1 TEST CASES



8.2 USER ACCEPTANCE TESTING

1.Purpose of Document

The purpose of this document is to briefly explain the test coverage and open issues of the [Child safety monitoring] project at the time of the release to User Acceptance Testing (UAT).

2.Defect Analysis

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	4	3	2	3	12
Duplicate	1	0	3	0	4
External	2	2	0	1	5
Fixed	7	2	4	14	27
Not Reproduced	0	0	1	0	1
Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	14	12	13	20	59

3.Test Case Analysis

This report shows the number of test cases that have passed, failed, and untested

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	4	0	0	4
Client Application	12	0	0	12
Security	2	0	0	2
Outsource Shipping	2	0	0	2
Exception Reporting	7	0	0	7
Final Report Output	4	0	0	4
Version Control	2	0	0	2

RESULTS

9.1 PERFORMANCE METRICES

There are a few key performance metrics that are important to track for a Child safety monitoring application. These metrics include: 1. User satisfaction: This can be tracked through surveys or interviews with users of the application. It is important to track how satisfied users are with the application in order to gauge its success. 2. Engagement: This can be tracked by looking at how often users use the application and how long they use it for. This will give insight into how useful the application is for users. 3.Child Safety and Monitoring Knowledge: This can be tracked by administering some of the safety measurement features to users of the application. This will show how much users have learned about child safety through using the application.4.User satisfaction: By using this child safety monitoring system, child's safety is now ensured by parents or care takers. No need to worry about child when the child is away from home.

ADVANTAGES & DISADVANTAGES

ADVANTAGES

- **Know the current location**

Our Kids GPS Tracker provides real-time location of your children. You can track the live locations of your kids, where they are and what they are doing.

- **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.

- **Emergency call**

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, a call can be done & a notification will be sent to family members.

- **Alerts**

Both the parents and school authorities 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 Personal GPS trackers for kids are great options for parents for monitoring their children 24/7. Our device can track a children's location as well as allow parents to set up a safe zone for their kids.

DISADVANTAGES

- The system is dependent on communication signal/network signal for the smart gadget to trigger automatic phone call/SMS during panic situation.
- It can be difficult to detect when network signal is not reachable/weak/when the smart gadget moves outside the boundary range. Hence, it can be improved by increasing the range.

CONCLUSION

The system has presented a Smart safety device for child monitoring using Internet of Things. It provides efficient monitoring of child with the help of GPS and GSM based Technology. The proposed system provides communication between parent and child. It provides parents with the real time Location, Heart beat along with Distress alarm buzzer for their child's surroundings and the ability to locate their child or alert by standers in acting to rescue or comfort the child. The application keeps track of the child periodically and updates the status of child to the user. Thus the parents are always kept aware of their Child constantly. It assists parents to monitor their children remotely. In case situations happen, notifications will be sent to parents so that actions can be taken. Through this, child safety can be ensured and crime rate will be reduced. However, the proposed device is not robust enough and does not contain sufficient functions to operates like a mobile phone. Hence, the future enchantments will be adding more features, software, applications, hardware to make the proposed system capable of working more intelligently, meanwhile guarantee the safety of children.

FUTURE SCOPE

In our system, we automatically monitor the child in real time using Internet of Things, with the help of GPS, GSM, and Raspberry Pi. This system requires network connectivity, satellite communication, and high-speed data connection when we use web camera and GPS to lively monitor. It is difficult to monitor when there occurs any hindrance to satellite communication or any network issue. There also occurs time delay in video streaming through the server. Hence in the future, these issues can be overcome by using Zig bee concept or accessing the system without internet and using high-speed server transmission. This Smart IoT device for child safety and tracking helps the parents to locate and monitor their children. If any abnormal values are read by the sensor then an SMS is sent to the parents mobile and an MMS indicating an image captured by the serial camera is also sent. The future scope of the work is to implement the IoT device which ensures the complete solution for child safety problems.

APPENDIX

PROJECT DEMO LINK:

https://drive.google.com/file/d/11OZkkzuKWTIBfven7lVuDB2qEM0TkYm4/view?usp=sharing

GIT REPO LINK:

https://github.com/IBM-EPBL/IBM-Project-47418-1660799193.git