# PROJECT REPORT FORMET

- 1. INTRODUCTION
- 1.1 Project Overview
- 1.2 Purpose
- 2. LITERATURE SURVEY
- 2.1 Existing problem
- 2.2 References
- 2.3 Problem Statement Definition
- 3. IDEATION & PROPOSED SOLUTION
- 3.1 Empathy Map Canvas
- 3.2 Ideation & Brainstorming
- 3.3 Proposed Solution
- 3.4 Problem Solution fit
- 4. REQUIREMENT ANALYSIS
- 4.1 Functional requirement
- 4.2 Non-Functional requirements
- 5. PROJECT DESIGN

- 5.1 Data Flow Diagrams
- 5.2 Solution & Technical Architecture
- 5.3 User Stories
- 6. PROJECT PLANNING & SCHEDULING
- 6.1 Sprint Planning & Estimation
- 6.2 Sprint Delivery Schedule
- 6.3 Reports from JIRA
- 7. CODING & SOLUTIONING (Explain the features added in the project along with code)
- 7.1 Feature 1
- 7.2 Feature 2
- 7.3 Database Schema (if Applicable)
- 8. TESTING
- 8.1 Test Cases
- 8.2 User Acceptance Testing
- 9. RESULTS
- 9.1 Performance Metrics

- 10. ADVANTAGES & DISADVANTAGES
- 11. CONCLUSION
- 12. FUTURE SCOPE
- 13. APPENDIX

Source Code

GitHub & Project Demo Link

**Project Report Format** 

- 1. INTRODUCTION
- 1.1 Project Overview
- 1.2 Purpose
- 2. LITERATURE SURVEY
- 2.1 Existing problem
- 2.2 References
- 2.3 Problem Statement Definition
- 3. IDEATION & PROPOSED SOLUTION
- 3.1 Empathy Map Canvas
- 3.2 Ideation & Brainstorming

- 3.3 Proposed Solution
- 3.4 Problem Solution fit
- 4. REQUIREMENT ANALYSIS
- 4.1 Functional requirement
- 4.2 Non-Functional requirements
- 5. PROJECT DESIGN
- 5.1 Data Flow Diagrams
- 5.2 Solution & Technical Architecture
- 5.3 User Stories
- 6. PROJECT PLANNING & SCHEDULING
- 6.1 Sprint Planning & Estimation
- 6.2 Sprint Delivery Schedule
- 6.3 Reports from JIRA
- 7. CODING & SOLUTIONING (Explain the features added in the project along with code)
- 7.1 Feature 1
- 7.2 Feature 2

- 7.3 Database Schema (if Applicable)
- 8. TESTING
- 8.1 Test Cases
- 8.2 User Acceptance Testing
- 9. RESULTS
- 9.1 Performance Metrics
- 10. ADVANTAGES & DISADVANTAGES
- 11. CONCLUSION
- 12. FUTURE SCOPE
- 13. APPENDIX

Source Code

GitHub & Project Demo LinkProject Report Format

- 1. INTRODUCTION
- 1.1 Project Overview
- 1.2 Purpose
- 2. LITERATURE SURVEY
- 2.1 Existing problem

- 2.2 References
- 3. IDEATION & PROPOSED SOLUTION
- 3.1 Empathy Map Canvas
- 3.2 Ideation & Brainstorming
- 3.3 Proposed Solution
- 3.4 Problem Solution fit
- 4. REQUIREMENT ANALYSIS
- 4.1 Functional requirement
- 4.2 Non-Functional requirements
- 5. PROJECT DESIGN
- 5.1 Data Flow Diagrams
- 5.2 Solution & Technical Architecture
- 5.3 User Stories
- 6. PROJECT PLANNING & SCHEDULING
- 6.1 Sprint Planning & Estimation
- 6.2 Sprint Delivery Schedule
- 6.3 Reports from JIRA

- 7. CODING & SOLUTIONING (Explain the features added in the project along with code)
- 7.1 Feature 1
- 7.2 Feature 2
- 7.3 Database Schema (if Applicable)
- 8. TESTING
- 8.1 Test Cases
- 8.2 User Acceptance Testing
- 9. RESULTS
- 9.1 Performance Metrics
- 10. ADVANTAGES & DISADVANTAGES
- 11. CONCLUSION
- 12. FUTURE SCOPE
- 13. APPENDIX
- 1.INTRODOCTION:

The IoT refers to a collection of tools and structures that are connected to Internet by real world sensors and actuators. The impetus for this system stems from the need for security for young children in these days, as there may be opportunities for the child to be lost in the large crowded areas. The projects to

supply safety to child using smart wearable gadget and android application. The reason for this wearable increasing present. The scheme is based on the key aspect that children can support the missing child and play a significant role in the safety of children until they are reunited with the parents. The device is running the project is the Raspberry Pi3 unit. We are using SMS in this project as a means of communication between the parent and the child's wearable device.

## 1.1PROJECT OVERVIEW:

purpose of helping parents to locate their children. There are many wearable devices available for tracking the daily activities of children as well as helping to find a child using the Wi-Fi and Bluetooth capabilities of the app. But Wi-Fi and Bluetooth are proving to be an inefficient means of communication between parent and child. This project focuses on making an SMS text activated to communicate between the wearable child and a parent as the framework for GSM Mobile Communication.

### 1.2PURPOSE

The wearable device will respond in real time with a text containing the exact location of a child, which will provide details on the position of the child and the ambient temperature. The new method implemented was using a pi camera to capture the image of a person who is in the opposite position of child. The mail will be send to the parents to track the child location using Raspberry Pi. Thepulse sensor is used for monitoring child's pulse rate. The sound sensor is used to differentiate the voice of the child and predict whether the child is in abduction condition.

## 2. LITERATURE SURVEY:

The GSM shield which is used to send the data and it is collected by the Raspberry Pi3 via SMS to the smart phone. GPS Location sensor decides the child's current location. The image is captured using pi camera and it will be sent as a mail to stored mail account. All the sensors use 5v power supply and

connected to the Raspberry Pi 3B.This IC microcontroller controls the system with a Raspberry Pi boot- loader.

### 2.1 EXISTING PROBLEM

The child's parameters that are recorded by the sensors incorporated within the device are sent to the parent. The pulse sensor senses the pulse rate of child with reference values and predict the condition of child. The Sound Sensor detects the child's sound with reference values. If it exceeds the reference value the condition .

### 2.2 REFERENCE

The sending and receiving SMS provided by Raspberry Pi3. Pi Camera is used to record the person's image opposite to the child using Image Processing. It is used to track the status of child. The Sound sensor is used to differentiate the sound of child when child is in abduction state. It is predicted with reference values. The pulse sensor is used for monitoring child's pulse rate when child abduction happens.

## 3. IDEATION AND PROPOSED SOLUTION:

The sending and receiving SMS provided by Raspberry Pi3. Pi Camera is used to record the person's image opposite to the child using Image Processing. It is used to track the status of child. The Sound sensor is used to differentiate the sound of child when child is in abduction state. It is predicted with reference values. The pulse sensor is used for monitoring child's pulse rate when child abduction happens.

## 3.1 EMPATHY MAP CANVAS

Customer-focused explorations have garnered more attention as organizations embrace customer-centric ways of doing business. There are many user experience mapping techniques, each with its own purpose. Customer journey mapping is a popular and extremely valuable process and organizations that create and use journey maps reap great benefits. Empathy mapping isn't a

replacement for investing in those exercises, but it is a faster and simpler way to create a focused view of what users are thinking and feeling. While both maps are built from a customer's point of view, journey maps are a visualization of the entire experience and outline everything a user does, encounters, thinks, and feels interacting with a brand across touchpoints. Empathy maps provide a focused view of a target persona and not an wide enough vision for designing an entire user experience.

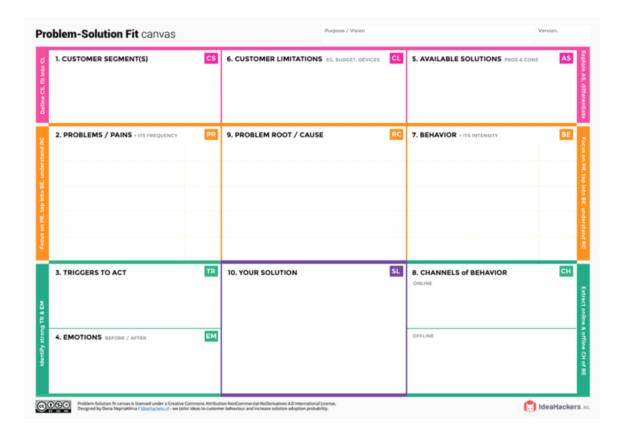
#### 3.2 IDEATION AND BRAINSTROMING

To create an empathy map, gather any qualitative research data, personas, and your team. The only materials needed are large sheets of paper or a whiteboard, colored sticky notes, and markers. You can freehand sketch your map or print worksheets from the many free templates available online. (I prefer to use the large, canvas-sized post-its and small stickies for effective group collaboration and reserve printed worksheets for individual exercises.)

### 3.3PROPOSED SOLUTION

overcome the drawbacks of the existing system. We implement the project using Raspberry Pi. Using Raspberry Pi and Pi camera the child abduction is found. The image processing is done to capture the image of the person who is in opposite direction of child. The pulse sensor differentiates the pulse rate of child and find whether child is in emergency condition. The sound sensor used to predict the voice of child and to help the child to recover from the circumstances.

The Problem-Solution Fit canvas is based on the principles of Lean Startup, LUM (Lazy User Model) and User Experience design. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why. It is a template to help identify solutions with higher chances of solution adoption, reduce time situation.



## 4 .REQUIREMENT ANALYSIS:

Functional requirements are the desired operations of a program, or system as defined in software development and systems engineering. The systems in systems engineering can be either software electronic hardware or combination software-driven electronics.

# 4.1FUNCTIONAL REQUIREMENT

Functional requirements are a part of requirements analysis (also known as requirements engineering), which is an interdisciplinary field of engineering that concerns the design and maintenance of complex systems. Functional requirements describe the desired end function of a system operating within normal parameters, so as to assure the design is adequate to make the desired product and the end product reaches its potential of the design in order to meet user expectations.

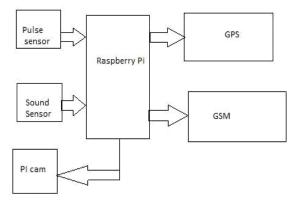
## 4.2 NONFUNCTIONAL REQUIREMENTS

They specify the Non-Functional Requirements are the constraints or the quality attribute of the software. Non-Functional Requirements deal with issues like scalability, maintainability, performance, portability, security, reliability, and many more. Non-Functional Requirements address vital issues of quality for software systems. If NFRs not addressed properly, the results can include:

## 5. PROJECT DESIGN:

Gantt charts are a handy visualization technique in project design. They make it easy to depict and visually explain project plans, schedules, roadmaps, timelines, baselines, critical paths, etc. Once you've developed your Gantt chart, you can share it with team members to loop them on the project activities and execute projects collaboratively.

### 5.1 DATA FLOW DIAGRAM



### 5.2 SOLUTION AND TECHNICAL ARCHITECTURE

Solutions architecture includes a variety of processes and subprocesses, which allow business leaders to implement technological fixes. Solutions architects oversee technical predictions, examine potential challenges and deliver innovative solutions. They review how they can combine aspects of business, technology and information to address and resolve organizations' issues. They can then present several steps to solve the business's technological challenges. This process serves as a connection between technical architecture and enterprise architecture.

A technical architect is an IT professional who works alongside businesses' end users and solution architects to evaluate an organization's requirements and priorities. They use this information to create an overview of implementation costs and scheduling to help implement IT strategies. Technical architects can lead IT project teams and act as an important connection between stakeholders, managers and software developers.

### **5.3 USER STORIES**

The purpose of a user story is to articulate how a piece of work will deliver a particular value back to the customer. Note that "customers" don't have to be external end users in the traditional sense, they can also be internal customers or colleagues within your organization who depend on your team.

## 6.PROJECT PLANNING AND SCHDULING:

Identifying the key project sponsors and stakeholders, to determine the basis of project scope, budget, and time-frame for project execution.

Upon enlisting the stake-holder requirements, prioritizing/setting project objectives.

Identifying the project deliverables required to attain the project objectives.

Creating the project schedule.

Identifying the project risks, if any, and develop suitable mitigation plans.

Communicating and presenting the project plan to stakeholders

## **6.1 SPRINT PLANNING AND ESTIMATION**

Story points are an estimation technique based on relative efforts. The agile development team assigns each user story a number of points based on the amount of work required to build the features, the complexity of the

functionalities, and the level of risks. There are different ways to assign story points to an agile project (e.g., planning poker, t-shirt size, dot voting, etc.) depending on factors such as the number of work items, the status of the product backlog, and the stage of the estimation may assign point values using consecutive whole numbers or the Fibonacci sequence, which is more popular because it leaves room for approximation.

#### 6.2 SPRINT DELIVERY SCHEDULE

The main event during agile methodology is the sprint, the stage where ideas turn into innovation and valuable products come to life. On one hand, agile sprints can be highly effective and collaborative. At the same time, they can be chaotic and inefficient if they lack proper planning and guidance. And for this reason, making a sprint schedule is one of the most important things you can do to ensure that your efforts are successful. you're looking to schedule your next sprint, you've come to the right place. Keep reading to learn everything you need to know about sprint scheduling, including some tips to drive the best results.

### 6.3REPORTS FROM JIRA

Reports like Created vs Resolved, Resolution Time and Average Age underscore if there is more incoming work than the team is able to complete or highlight if your backlog requires action. This category also includes some generic, customizable gadgets like Pie Charts, Single Level Group by Reports, and Time Since Issues Reports. Data visualization is key to creating impressive, appealing, and lucid Jira reports, and following best practices of Jira dashboard reporting takes you closer to achieving optimal results.

## 7.CODING ND SOLUTIONING:

In computing, scheduling is the action of assigning resources to perform tasks. The resources may be processors, network links or expansion cards. The tasks may be threads, processes or data flows. The scheduling activity is carried out by a process called scheduler.

Schedulers are often designed so as to keep all computer resources busy (as in load balancing), allow multiple users to share system resources effectively, or to achieve a target quality-of-service.

#### 7.1 FEATURE1

This article is about scheduling in general. For networks, see Network scheduler. For other uses, see Scheduling (disambiguation)computing, scheduling is the action of assigning resources to perform tasks. The resources may be processors, network links or expansion cards. The tasks may be threads, processes or data flows.

### 7.2FEATURE2

Transform features into benefits and boost your potential conversion rate with the INK's Generate Features vs. Benefits Sales Copy tool. Main Features vs.

## 7.3DATABASE SCHEMA (if applicable)

A database schema is the skeleton structure that represents the logical view of the entire database. It defines how the data is organized and how the relations among them are associated. It formulates all the constraints that are to be applied on the data. A database schema defines its entities and the relationship among them. It contains a descriptive detail of the database, which can be depicted by means of schema diagrams. It's the database designers who design the schema to help programmers understand the database.

## 8 TESTING:

## 8.1 TEST CASES

Software testing is known as a process for validating and verifying the working of a software/application. It makes sure that the software is working without any errors, bugs, or any other issues and gives the expected output to the user. The software testing process doesn't limit to finding faults in the present

software but also finding measures to upgrade the software in various factors such as efficiency, usability, and accuracy. So, to test software the software testing provides a particular format called a Test Case.

#### **8.2.USER ACCEPTANCE TESTING**

Need of User Acceptance Testing arises once software has undergone Unit, Integration and System testing because developers might have built software based on requirements document by their own understanding and further required changes during development may not be effectively communicated to them, so for testing whether the final product is accepted by client/end-user, user acceptance testing is needed.

## 9 RESULTS:

#### 9.1PERFORMANCE MATRICS

A performance testing results report is crucial for knowing the areas of defects and improvements in the software. Performance testers are responsible for reporting credible information about the applications and systems they run tests on, and in doing so, must use an effective approach. Any wrong or misleading information about the website's readiness or system application could spell doom on so many fronts for the company, financially, socially (brand reputation), and possibly, the viability of the company. A performance testing results report template is an essential tool in collecting precise, infallible, and valuable metrics for further analysis.

# 10 ADVANTAGES AND DISADVANTAGES:

Health and safety The Malaysian government has not seriously taken under consideration the health and safety aspects of nuclear energy. Murphy's Law dictates that there's no such issue as nuclear safety or a fail-safe nuclear reactor. Human error and unpredictable events area unit inescapable, creating setup safety unsure. The recent harmful nuclear accident in Fukushima has

brought Japan to itsknees and persuaded several countries, as well as Deutschland and European nation, to end atomic powerand

## 11 CONCLUSION:

The objective behind the project is to design and manufacture functionality that is also lightweight in itself, providing the advantage the private security system as an emergency response device that is useful to children in crime incidents. This paper offers the result for the parent in alternative ways. The first one is that they get associate degree

## 12 FUTURE SCOPE:

Data Science is a buzzword in the technology world right now and for good reason, it represents a major step forward in how computers can learn. The need for Data Scientists are high in demand and this surge is due to evolving technology and generation of huge amounts of data aka Big Data. So, Let's discuss the Future Scope of Data Science in the following order:

# 13 APPENDIX

Appendicitis occurs when your child's appendix becomes infected or inflamed. Symptoms include severe pain in your child's lower right abdomen. Treatment usually involves removal of your child's appendix through surgery. Treatment is vital. If appendicitis is not treated, your child's appendix could rupture, causing life-threatening conditions.