



A project report on

PARI-WOMEN ARE NOT ALONE

Submitted in partial fulfillment of the requirements for the Degree of

B. Tech in INFORMATION TECHNOLOGY

by

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Bhubaneswar

MAY 2021



CERTIFICATE

This is to certify that the project report entitled “ **PARI-WOMEN ARE NOT ALONE**” submitted by

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Debadutta Panda	1806591

in partial fulfillment of the requirements for the award of the **Degree of Bachelor of Technology** in **Discipline of Engineering** is a bonafide record of the work carried out under my(our) guidance and supervision at School of Computer Engineering, Kalinga Institute of Industrial Technology, Deemed to be University.

Signature of Supervisor 1

NAME OF THE SUPERVISOR 1

Academic affiliation

Organization

The Project was evaluated by us on 16/05/2021

EXAMINER 1

EXAMINER 2

EXAMINER 3

EXAMINER 4

ACKNOWLEDGEMENT

Any accomplishment requires work any effort of many people. This project work is no different. We are grateful to Dr. Suresh Chandra Moharana who inspired and direct us to carry out with this project. We are also thankful to the UG project team as well as The program head and dean of the school for their valuable guidance, keen interest and encouragement even in this pandemic situation. We deeply express our sincere gratitude to each and everyone whose guidance, encouragement and suggestion and very constructive criticism have contributed immensely to the evaluation of our ideas in the respective project.

Kalyani samanta(1806586)

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ABSTRACT

In today's world, people using smartphones have increased rapidly and hence a smartphone can be used efficiently for personal security or various other protection purposes. The heinous incidents that outraged the entire nation have wakened us to go for the safety issues and so a host of new apps have been developed to provide security systems to women by their phones. Increasing crime rates has caused women to become more concerned about safety and security in today's world than ever before. According to a survey conducted in 2010, 81% of women in the U.S. reported being harassed prior to puberty. This stems from the increase in crime rates. Almost 35% of women have suffered sexual harassment or abuse from non-partners at some point in their lives in India.

Key words: SMS, contact information, contact management, security, tracking.

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List of Photograph Of Application

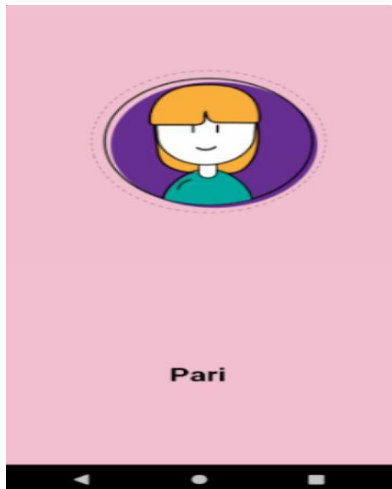


figure 1.1 Flash screen of PARI

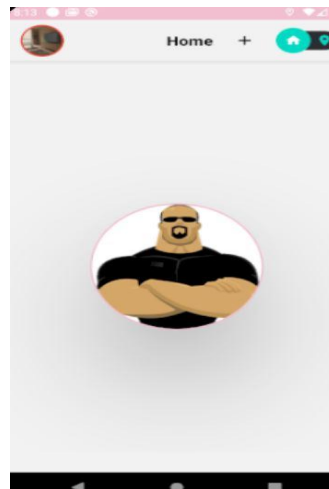


figure 1.2 Home Screen of PARI

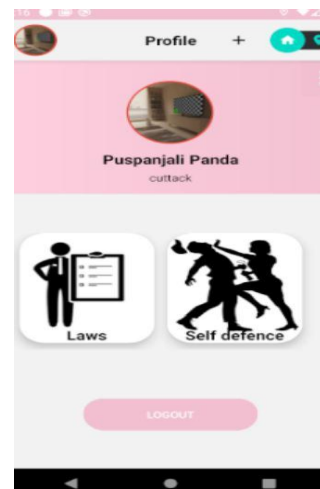


figure 1.3 Profile Of User



figure 1.4 Google Maps.

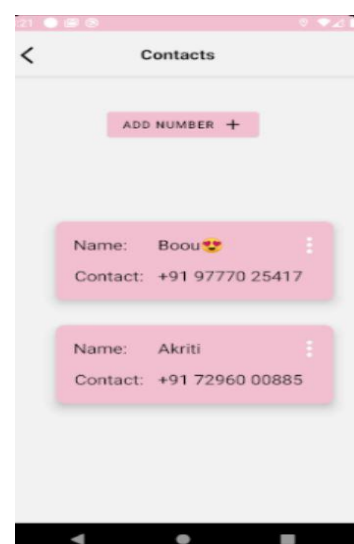


figure1.5 Contacts Are added by User

CHAPTER 1

INTRODUCTION

Many women have been pushed into a corner by situations such as domestic violence or violent crime outside the home, where they lose the confidence one needs to face the outside world. All too often, people fail to get off their backs and actually do anything to protect these women, especially when they're being threatened to drop charges against their abuser as a result of their abusive behavior.

This report is mainly about women's safety measure. Pari is a women safety app which can guide a female through difficult and tough situations. Pari is an internet-dependent app which requires access to the contacts, photos, storage and location of the user's device. The user has to provide the name, address and phone number in order to sign up so that this data can further be used in case of extreme emergencies. The app provides information about the laws related to women safety, tips to tackle difficult situations and videos on women defence techniques. When in danger the user can use the "SOS " feature which can be added to the main screen of your phone for easy access. When the SOS feature is used, the app takes pictures from the front as well as the back camera of the user's phone along with the current location and sends it to the emergency contact. The emergency contact has to be saved beforehand.

CHAPTER 2

BACKGROUND

PROJECT SPECIFIC DOMAIN OR HYBRID:

The soul purpose of this project has been to provide a safe space to women or anybody who needs it out there in this world filled with darkness all around. The main user will widely be targeted towards women of our country. In the early days women were not supported enough because they were thought to be weak. If we are being honest here women are not as well trained or do not have the physique to be able to fight as men do, but they are not weak. All they need is a little support and courage. This is what this app stands for, providing courage and strength to make it out of difficult situations and to fight back as equals when in the battle field.

PROJECT SCOPE:

As the project is mainly about women safety which aims at creating convenient and easy to use applications for users (especially for women). Its main objective is to build a user-specific app by using the relational database which is stuffed at its backend with the information of the concerned user. Basically, we will make use of client-server architecture which in turn will make our application interface friendly. Above all, we hope to provide a comfortable user experience along with the best features available.

OPERATING ENVIRONMENT:

1. distributed database
2. client/server system
3. operating system-Android OS
4. database-sql+database
5. platform-node.js/java
6. Framework: Android

CHAPTER 3

PROJECT ANALYSIS/ PROJECT IMPLEMENTATION

- **ASSUMPTION AND DEPENDENCIES:**

Let us assume a user specific case who is using this particular application:

When the user opens this particular application, she will have to provide the required details necessary for the login purpose. Then the app requires permission for accessing the different features of your system like camera, map etc. The user details are stored at its backend simultaneously with the creation of two rows i.e, one in the user and another one in the location table respectively. By getting permission for accessing the location from the user, it enables its GPS tracker to track the current location of the user. Furthermore, an additional service runs at its background in order to update the user's current location every 2-3 sec(by tracking the change in her latitudinal and longitudinal position).In the home page, it has an emergency SOS or alert button so that when the user feels unsafe or being attacked by someone, she can immediately press this button to keep informed about this situation to all her trusted contacts(It is always suggested to add the police station number in her contact list too in case of emergency).

- **TOOLS , TECHNIQUES AND TECHNOLOGY:**

There is a front end based on Java SE 9 SDK and a back end based on MYSQL. In our world, more and more people use Smartphones, and for various protection purposes, a phone can be used efficiently.It is vital to introduce Android applications that protect the safety of women in our current scenario. This app was developed to address the threat that you might face as a woman.An app that detects the location of a place through GPS and sends a message to the registered contacts about the address can be activated by a single click, allowing her to inform them if she finds herself in a dangerous situation.By tracking the location of the victim via SMS, it is possible to locate her quickly and ensure her safety.Node.js is used to connect the app to a server and a database.

1.Agile project management:

with reference to this particular app,we can configure different levels of our work structure which is quite convenient in tough situations and also track long and short terms deadlines to keep our team on track.it helps us to show the estimated work strategy for a specific project during planning process and monitor all of the work progress our team has made so far.This different phases to consider in the development cycle of mobile apps can take place in parallel,with a track of expected features and requirements.Thus the teamwork,continuous improvement ,custom feedback and the adaptability to changes are the key highlights of the Agile strategy.

KEY BENEFITS OF USING AGILE PROJECT MANAGEMENT:

The agile mobile application development methodology emphasizes frequent communication and teamwork, which maintains the workflow and enables in delivering the result oriented app. Testing is done at the end of each phase which means an earlier encounter with the bugs and mitigating them. The short application development cycles increase the flexibility of the process, you can easily add, remove or update any feature or even when the app is already in the market.

Technology used:

We have used the ANDROID framework which we think will be best suited for this project. Furthermore, we have used node.js, java at frontend and mySQL at its backend respectively. This App uses the technical functions like Geofence technology, GPS location, Identification, SMS or photo alert, Real time tracking etc.

2. SWOT:

SWOT stands for Strengths, Weaknesses, Opportunities, and Threats, and so a SWOT Analysis is a technique for assessing these four aspects of your project. We can use SWOT Analysis to know what we've done till date, to the organization's or team's best advantage. And this reduces the chances of failure, by understanding what all is lacking, and eliminating hazards that would otherwise put us in harm's way.

Strengths: The application is user friendly and has a lot of graphics so that even a person who can't read it can use it through symbols. The location of the user is updated every 2-3 seconds with the help of GPS(Global Positioning System), making it safer and more reliable. The camera technology helps the user in need, by clicking and sending their picture to the trustworthy ones from the emergency contacts. A SOS message is passed on to them along with the pictures of the user taken by the front camera of the user. Live tracking helps to find the user and provide necessary help to them. This application can save a lot of people from going through trauma and can make people take quick actions in difficult situations. The application provides us with tips for tackling disturbing situations, as in these kinds of situations we panic and don't know how to react smartly. The app helps the user to work out a plan that is best for their situation by providing tips to the user.

Weaknesses: The application we made is purely internet based. When an application is dependent on the internet, what happens in cases where the network is not available. If we are talking in realistic terms, in India there are areas where there is no electricity till date. So communication and internet connection is not their priority. This application can't be used when the internet is unavailable and makes it useless in cases when the user is out of the coverage area of their network provider. And according to the analysis most of the victims were harassed when they were thought to be alone and in remote places where people couldn't reach. This is one of the main drawbacks of our application. If the user does not have a phone with a camera, the application won't be able to send the sos pictures to the reliable ones of the user.

Opportunities: The customer reach can be very high with exponential growth in violence and crimes on women. we believe it's a widely usable and purpose fulfilling project which has a great scope nearly 45% of Indian population is female and our target user. With the number of rape, kidnapping and harassment cases rate has increased a lot in the past few years. The project can be expanded further and be updated with more efficient features in near future. As the times are changing the classification of crime over a specific gender is narrowing down and this app has the potential to be expanded for those times as well.

Threats: Network and internet accessibility is a major threat to the application. If it's not accessible the application has no further use to it. The camera if not present or in good conditions will provide no significant data to the help and thus making it difficult to reach out to the victim.

PROJECT IMPLEMENTATION

Following is a list of the project's five modules.

1. Users' Authentication
2. Contact Information for Emergencies
3. Additional Personal Information
4. Information you need to update
5. Messages sent via SMS

Users' Authentication:

In authentication, all the data about the authenticated person is stored in the module. Authentication refers to verifying someone's identity by obtaining some sort of credential and using that credential to verify their identity. Authorization begins once credentials are valid. The activation process is always followed by authorization. Users without the user name and password cannot log in. If the only authenticated user is the user, then the user can log in.

Contact Information for Emergencies

The Emergency Contacts module allows users to add information about the name, phone number of the Emergency Contacts. The user can then select the Emergency Contacts from her contacts list and they are now cached in the application's mobile memory until the user signs in.

Additional Personal Information

During the registration process, the user inputs the Personal Information which includes only the Id, Name, Mobile Number, Email ID and Address. These details are stored in the database.

Information you need to update

A User can update her Personal Information here. The user can change details such as Name, Mobile Number, Email ID, and Address. The updated information is then updated in the database.

Messages sent via SMS :

Women safety is added in this module. It is the core component of this application. When a woman feels stuck, she only needs to click on this app to activate it. One click in this app locates the place through GPS and sends a message to the registered emergency contacts and the nearest police station immediately with the location URL, contact number, and picture (which is taken by both front and rear cameras). A rescue operation is carried out as soon as possible.

ER Diagram:

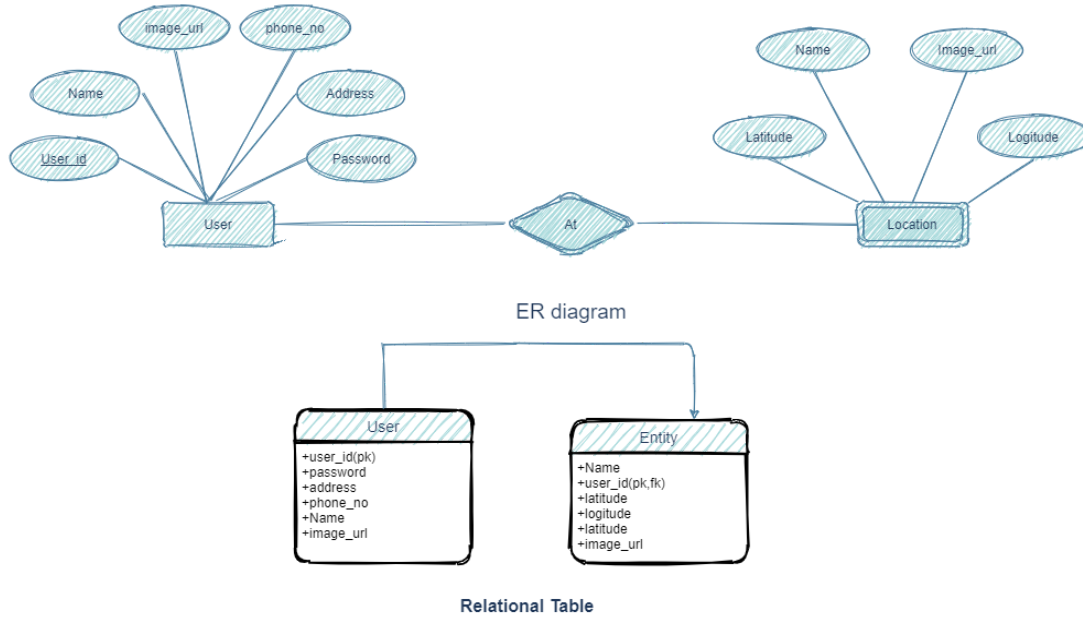


figure 2.1 Relational Table and ER Diagram

Data Flow Diagram of Pari:

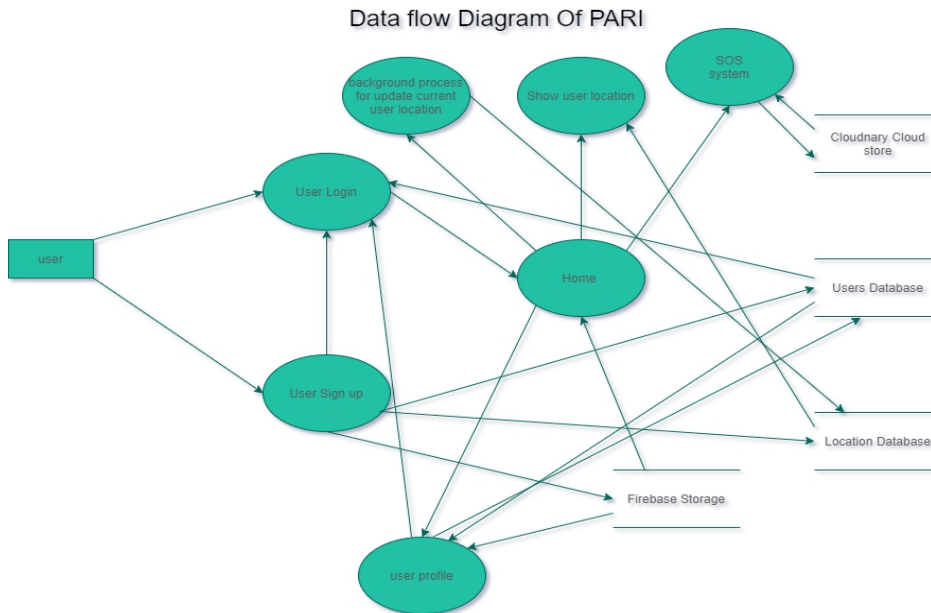


figure 2.1 DataFlow Diagram

User case Diagram:

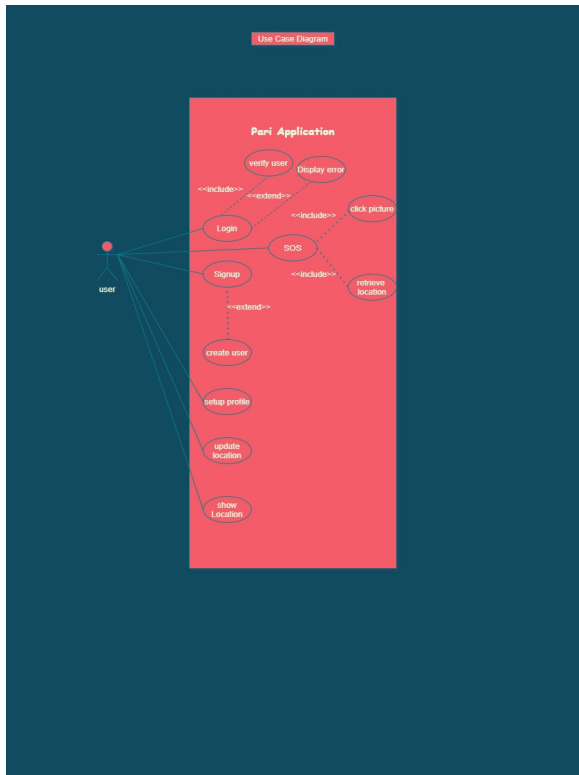


figure 2.2 User case Diagram

CHAPTER 4

RESULTS & DISCUSSIONS

A lot of adverse circumstances seem to occur at the most unexpected times in the present day scenario. Women make emergency calls manually using their mobile phones when facing an uncomfortable situation. When she makes the calls, her opponents may become aware and might not allow her to take necessary actions for her safety. Perhaps, at worst, she may find herself facing an even more difficult situation. It takes more time to communicate with her after the situation has gone badly. It is a drawback of the existing system to make manual calls to the emergency contacts. It is also time-consuming to maintain intimacy during an emergency situation. It can create interactive applications for women safety using Android mobile applications, which will overcome the disadvantages of the current system. This app is equipped with a panic button that the user can press whenever she is in an unfavourable situation. Pressing this button will send an alarm to the nearest rescue team and the nearest police station, so they can arrive at the scene at the earliest. We are using Android as the Front-End and MYSQL for our SQL Database. Since Android is our Front-End, it gives the web application a more professional and secure appearance. This makes the system more user friendly and easy to operate.

Benefits:

- It is easier to communicate with the contacts.
- Publishing the alert message is very fast and prevents any mishaps.

CHAPTER 5

CONCLUSION AND FUTURE WORK

5.1 Conclusion

Android App for Women Security System has been developed in compliance with several requirements. Almost all the system objectives have been met. The system has been tested under all criteria. The development process was simplified to ensure the safety of women. The system is highly scalable and user-friendly. It minimizes the problems associated with the existing manual system and ensures an immediate response to unfavourable events as soon as they occur. The database design is flexible, enabling the system to be implemented. It has been implemented and validated. All phases of the development were conducted in accordance with methodologies. It is easy to use with minimal training and produces the required report. The software has successfully completed the objectives of the project and provides future extension with minimal modifications.

5.2 Future Work

The project can be expanded further and be updated with more efficient features in near future. As the times are changing the classification of crime over a specific gender is narrowing down and this app has the potential to be expanded for those times as well. There is scope for future development of this project. This project has plenty of potential because Computer technology continues to develop new methods and technologies on a daily basis. It is dynamic rather than static. Today's popular skills will become obsolete in a few days. To remain relevant, the system should also be updated to keep pace with the technological developments. This project is not at the final stage. However, it will improve with further enhancements. Enhancements can be made in an effective manner. We can even inform about further changes and can be integrated with minimal alterations. Thus, the project is adaptable and can be enhanced anytime with new features.

5.3 SCOPE OF IMPROVEMENT:

As this app makes use of a GPS system, this requires an active internet connection majorly at the client side as well as the server side too. However emergency messages can be received at the client side without an active internet connection. In the existing app, there is no monitoring systems for girls, it should create many problems for them and the no safety mechanism to protect girls from misbehaviour activities. Both client and server should have required bandwidth in order to make use of the app efficiently. In this system, there is no alert mechanism for the girls safety, it should be done by manually only. User should give her correct details otherwise it behaves abnormally.

UNIQUE FEATURES:

uses latitudinal and longitudinal view using back and front camera to inspect the current situation of the victim. Realtime updates works on all mobile networks works on virtually all smartphones with GPS in them, which almost all smartphones already do. we can add multiple contacts in the emergency list so that alert messages can be sent at a time to every person in the list just with a single touch. This application records the live location of the victim.

Planning And Project Management

Table 5.1 showing details about project planning and management

Activity	Starting week	Number of weeks
Abstract and literature review	1 st week of January	1
Finalizing problem statement	2 nd week of January	1
Discuss about requirement software	3 rd week of January	1
finalizing the domains	4 th week of January	1
Deciding the roles among the team members	1 st week of February	1
UI/UX design	2 nd week of February	2
Database design and design ER diagram	4 th week of February	2
Implement Authentication service	2 nd week of March	2
Implement Database functionality and Backend service for connecting Database with the application	4 th week of March	2
Preparation of project report and Powerpoint presentation	1 st week of April	4
Preparation of project presentation	1 st week of May	1

The Gantt chart is shown below:

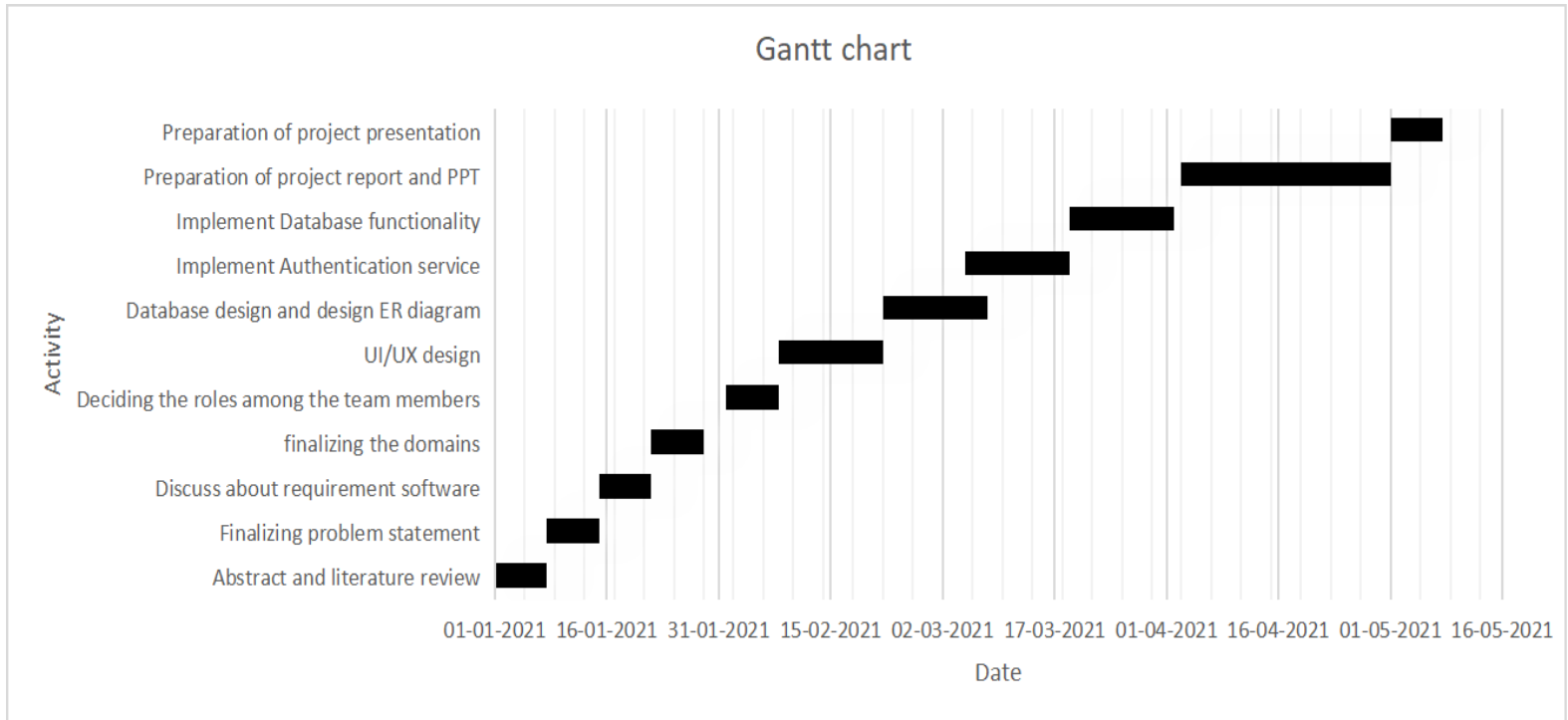


Fig 5.1: Gantt chart

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Referencing style for web pages

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2. <https://stackoverflow.com/questions/tagged/google-maps-android-api-2>
3. <https://stackoverflow.com/questions/26500036/using-retrofit-in-android>
4. <https://stackoverflow.com/questions/29103479/how-to-show-progress-while-upload-file-to-cloudinary-in-android>
5. https://cloudinary.com/documentation/android_integration
6. <https://developers.google.com/learn/topics/firebase>

SAMPLE INDIVIDUAL CONTRIBUTION REPORT:

PARI-WOMEN ARE NOT ALONE

Kalyani samanta 1806586

Akriti Singh 1806543

Debadutta panda 1806591

Abstract: In today's world, people using smartphones have increased rapidly and hence, a smart phone can be used efficiently for personal security or various other protection purposes. The heinous incident that outraged the entire nation has woken us to go for the safety issues and so a host of new apps have been developed to provide security systems to women via their phones. This paper presents PARI, an Android Application for the Safety of Women and this app can be activated by a single click, whenever need arises. A single click on this app identifies the location of a place through GPS and sends a message containing this location URL to the registered contacts and also calls on the first registered contact to help the one in dangerous situations. The unique features of this mobile application includes GPS tracking to trace the exact location, use of latitudinal and longitudinal view to know the current situation of the victim and adding multiple contacts to your emergency list so as to inform them simultaneously with a single touch.

Individual contribution and findings: The world of work has changed. It used to be that most of us worked as a part of a process. Since a project has a defined ending, it is important that each contributor to the effort knows the desired result. There is a very famous saying in ENGLISH i.e., "always begin with an end in mind" which every member of a project team should have before they start any project. So in our case, we have our planning that we will work on some project which in future will help the society in some way or the other. So with this thought in our mind we proceeded further and our team members equally contributed to this project. We helped each other in finding some features that will make our project a unique one. Every one has their own skill and contributed to this project with their own domain of knowledge.

Individual contribution to project report preparation: We were in total 3 members in our group. We equally distributed the topics according to our area of interest.

Akriti singh(1806543)-I had a very clear picture in my mind about the project that client server architecture which we have read previously will be the best option for making the base of this project. So I communicated it to my fellow team members. The whole project is based on client server architecture which has some extraordinary characteristics such as the web communication, communication through APIs program interface etc.

Debadutta panda(1806591)-As I have my core knowledge in the field of ANDROID and luckily we have chosen android as our domain for making this application, so it was very clear that I will contribute my part to the project by performing all the ANDROID related works starting from adding various features to this app to using APIs program interface.

Kalyani samanta(1806586)-As we have decided to build a women safety app, I thought of building the database which is the vital part of this project. Building a good database was much needed for this application. So I planned to make a database which can store all the necessary and crucial information of the user.

Individual contribution for project presentation and demonstration: We strongly believe project work is often fluid and free flowing, once you understand the roles and responsibilities, then you are in a situation to collaborate with them more successfully. The bigger the project, more linked and interdependent the people and the tasks. This project is a result of hard work, passion, perseverance, and patience of each of our team mates. So on the final presentation Debadutta has taken care of all the Technical part starting from the coding to the final implementation. Akriti has played a major role in adding unique features, building up the client server architecture, preparing all the documents related to the project. Kalyani has contributed to the database part at the backend which is used to store and access all the information of the user and also helped in project documentation. All three of us tried our best to make this project a successful one.

.....

Full Signature of Supervisor:

Full signature of the student:

PLAGIARISM REPORT

PARI-WOMEN ARE NOT ALONE

ORIGINALITY REPORT

19%	15%	6%	14%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

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