

NARI SURAKSHA : A WOMEN SAFETY APPLICATION USING DETECTION TECHNOLOGY



Submitted by

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B.SC. COMPUTER SCIENCE HONOURS (SEMESTER – VI) EXAMINATION – 2024 (CBCS)

Under the Guidance of

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INTRODUCTION

- SECURE
- CONFIDENT



CONTENTS

- MOTIVATION
- DOMAIN DESCRIPTION
- SCOPE OF WORK
- REVIEWS OF RELATED WORK
- METHODOLOGY
- IMPLEMENTATION
- RESULTS AND DISCUSSIONS
- FUTURE SCOPE
- REFERENCES

MOTIVATION

- IMPORTANCE
- ANDROID STUDIO CODE

DOMAIN DESCRIPTION

SOFTWARE :-

- ANDROID STUDIO CODE – IDE
- FLUTTER – AN OPEN-SOURCE FRAMEWORK
- DART – AN OPEN-SOURCE PROGRAMMING LANGUAGE
- FIREBASE – CLOUD-BASED NoSQL DATABASE

SCOPE OF THE WORK

- **CURRENT SCOPE OF IMPORTANCE**
- **IDENTIFIED GAPS**
- **PROPOSED SOLUTIONS**

REVIEWS OF RELATED WORK

References	Key findings	Research Gap
<p>[1] Prof. Shubham Bhadre, Divyen Patil, Sanika Bhasme, Vaibhavi Shilimkar, 2024 “Raksha – The Women’s Safety Application”, <i>International Research Journal of Engineering and Technology (IRJET)</i> e-ISSN: 2395-0056, p-ISSN: 2395-0072, Volume: 11 Issue: 05 , May 2024 doi: https://www.irjet.net/archives/V11/i5/IRJET-v11I564.pdf</p> <p>[2] Ms. S.Jayapratha, C.Subashini, R.Vaishnavi, 2024, CREATING APPLICATION ON ANDROID FOR WOMEN’S SAFETY, <i>INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY (IJERT) NCAAIET – 2024 (VOLUME 12 – ISSUE 01)</i> doi: https://www.ijert.org/research/creating-application-on-android-for-womens-safety-IJERTCONV12IS01036.pdf</p>	<ul style="list-style-type: none"> ✓ LiveSafe Explore ✓ Emergency Navigation ✓ SOS Custom Button ✓ Track Me option ✓ Fake Call Creation ✓ Send Voice Alert ✓ 24×7 Support 	<ul style="list-style-type: none"> <input type="checkbox"/> Shake to send SOS alert <input type="checkbox"/> Sending location in background <input type="checkbox"/> Sending images in chat app <input type="checkbox"/> Low Battery Consumption <input type="checkbox"/> Offline Availability <input type="checkbox"/> Automatic Recording
<p>[3] Prof. Roshan Kolte, Prachi Tadse, Priti Nikhare, Vanshika Randive, Snehal Raut, Gayatri Narakhede 2023 “An Android App for empowering Women’s Safety and Security”, <i>International Research Journal of Modernization in Engineering Technology and Science (IRJMETS)</i>, e-ISSN: 2582-5208, Volume:05, Issue:04, April-2023 doi: https://www.doi.org/10.56726/IRJMETS36188</p>	<ul style="list-style-type: none"> ✓ Emergency Contacts option ✓ Send SOS alert by tapping power button thrice ✓ Siren Alarm by tapping power button thrice to both start and stop ✓ Hidden Spy Camera Detector 	<ul style="list-style-type: none"> <input type="checkbox"/> Shake to send SOS Alert <input type="checkbox"/> Sending images in chat app <input type="checkbox"/> Low Battery Consumption <input type="checkbox"/> Voice Activation for alert <input type="checkbox"/> Create Fake Call <input type="checkbox"/> Automatic Recording

References	Key findings	Research Gap
<p>[4] Manisha Sharma , Akhil Bansal , Akansha Sharma , Anisha Verma , Prof. Vinay Singh. “An Android Based Women Safety App” , Volume 10, Issue V, <i>International Journal for Research in Applied Science and Engineering Technology (IJRASET)</i> Page No: 4758-4764, ISSN:2321-9653, www.ijraset.com</p> <p>doi: https://doi.org/10.22214/ijraset.2022.43499</p>	<ul style="list-style-type: none"> ✓ Emergency Contacts option ✓ Custom Alarm Button (makes siren) ✓ Emergency Call Button ✓ Custom Panic Button (send SOS alerts) ✓ Both Online and Offline Availability ✓ Make sound in contact’s phone instead of silent mode 	<p>Same as Previous Reference</p>
<p>[5] Mr. Ashutosh More, Ms. Kiran Gawade, Ms. Pradnya Guled, Ms. Shrutika Chippa, Ms. Vijayalaxmi Galgurgi, Prof. Anil Chinchawade, “Sakhi-The Saviour: An Android Application to Help Women in Times of Social Insecurity” , Volume: 08, Issue: 01 Jan 2021, <i>International Research Journal of Engineering and Technology (IRJET)</i>, e-ISSN: 2395-0056, p-ISSN: 2395-0072, www.irjet.net</p> <p>doi: https://www.irjet.net/archives/V8/i1/IRJET-V8I1104.pdf</p>	<ul style="list-style-type: none"> ✓ GPS Module ✓ Identifying location ✓ Shake to send SOS alert ✓ LiveSafe Explore ✓ Emergency Navigation ✓ 24×7 Support ✓ Track Me option 	<p>Same as Previous Reference</p>

METHODOLOGY

PROBLEM FORMULATION :

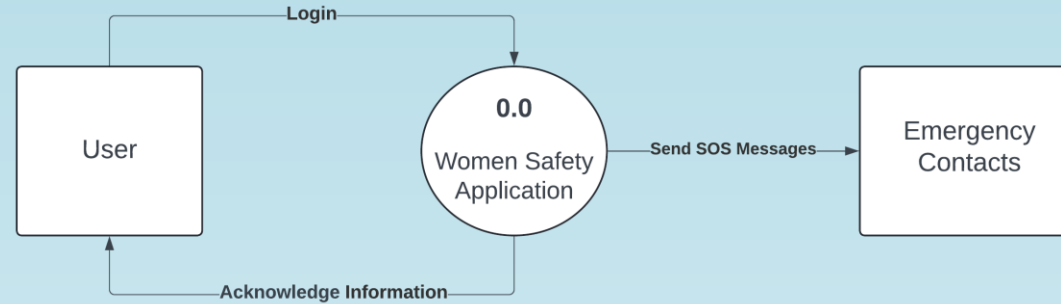
- NO CHANCE TO SHAKE THE DEVICE
- COMMUNICATION WITH PARENT DIRECTLY

PROPOSED WORK :

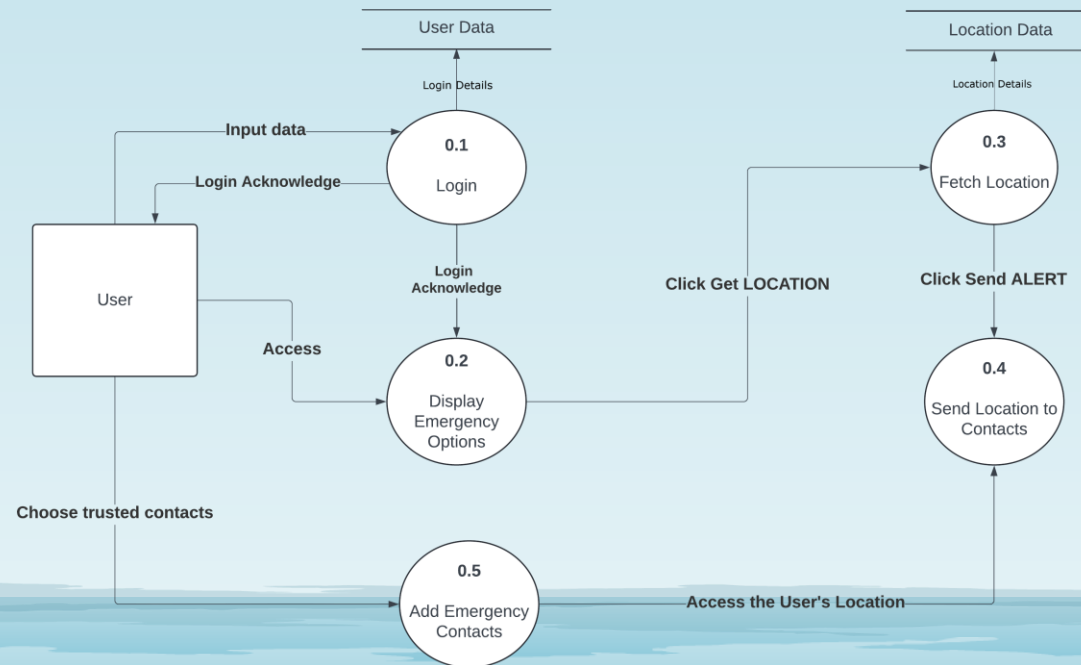
- ANDROID AS WELL AS iOS APPLICATION
- DATABASE (FIREBASE)
- EMERGENCY CONTACTS WITH DATABASE
- CUSTOM SOS BUTTON
- TO SEND MESSAGES BY SHAKING DEVICE 2 TIMES

DESIGN DESCRIPTION (DATA FLOW DIAGRAM)

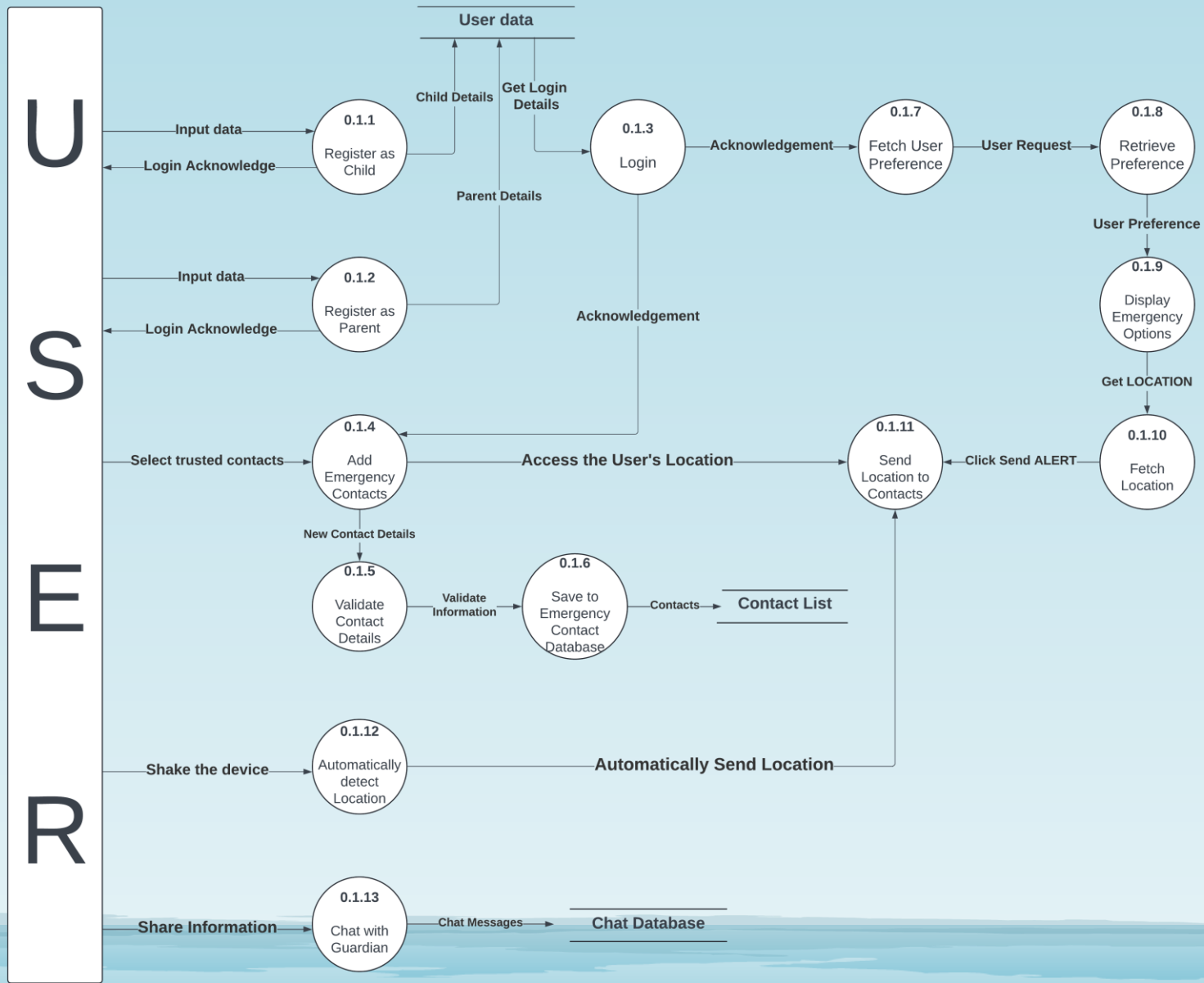
Level-0 Data Flow Diagram :



Level-1 Data Flow Diagram :



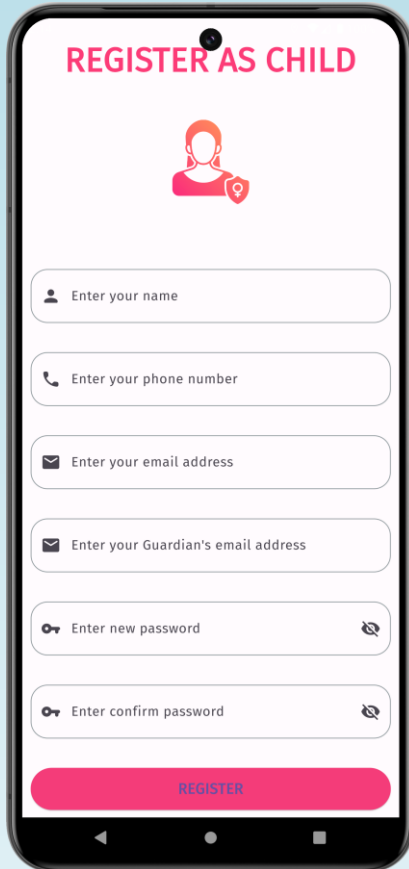
Level-2 Data Flow Diagram :




IMPLEMENTATION

- REGISTER PAGE
- LOGIN PAGE
- HOME PAGE
- CONTACTS PAGE
- CHAT PAGE
- SETTINGS PAGE
- BOTTOM SHEET
- WOMEN'S EMPOWERMENT MOTIVATIONAL PAGE

RESULTS AND DISCUSSIONS



REGISTER AS CHILD



Enter your name

Enter your phone number

Enter your email address

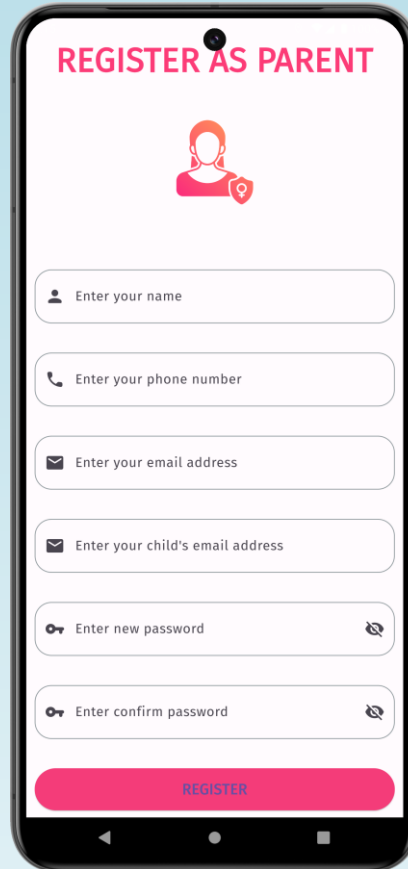
Enter your Guardian's email address

Enter new password


Enter confirm password

REGISTER

Register Page (1)



REGISTER AS PARENT



Enter your name

Enter your phone number

Enter your email address

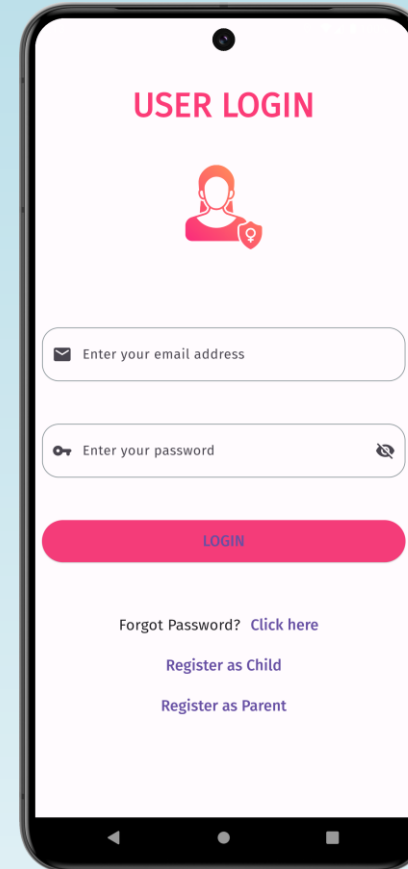
Enter your child's email address

Enter new password


Enter confirm password

REGISTER

Register Page (2)



USER LOGIN



Enter your email address

Enter your password

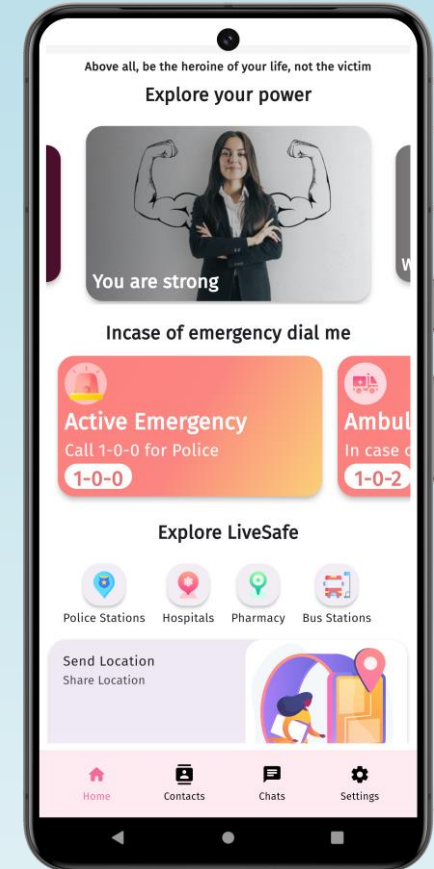
LOGIN

Forgot Password? [Click here](#)

[Register as Child](#)


[Register as Parent](#)

Login Page




Above all, be the heroine of your life, not the victim


Explore your power




You are strong


Incase of emergency dial me


 Active Emergency
Call 1-0-0 for Police
1-0-0


 Ambul
In case of
1-0-2

Explore LiveSafe


 Police Stations

 Hospitals

 Pharmacy

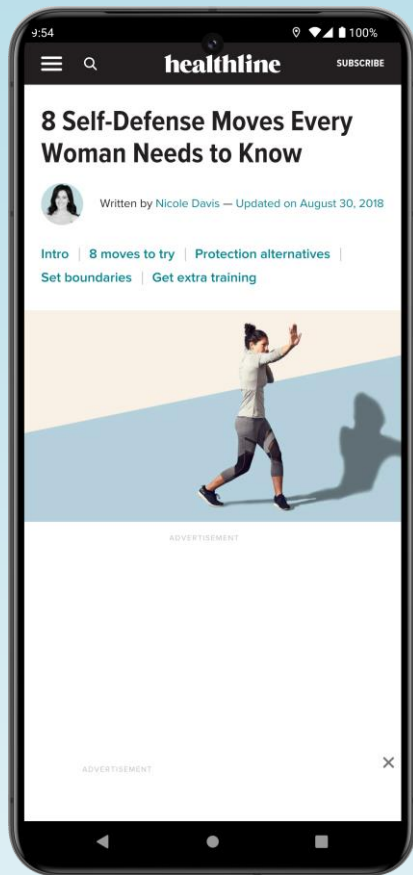
 Bus Stations

Send Location
Share Location

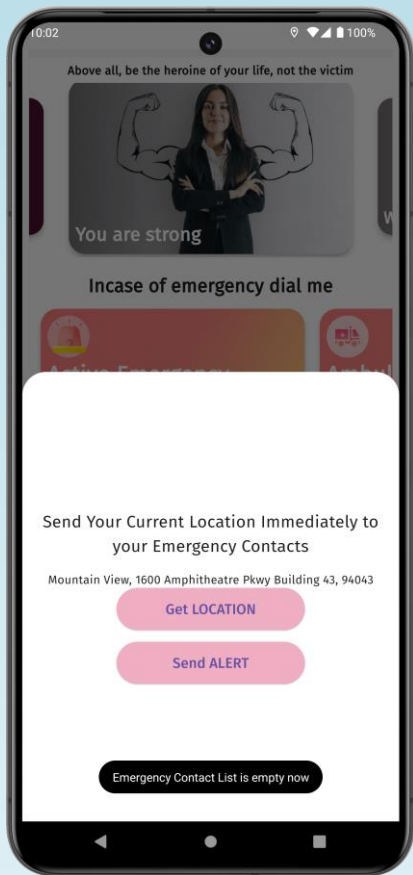


Home Contacts Chats Settings

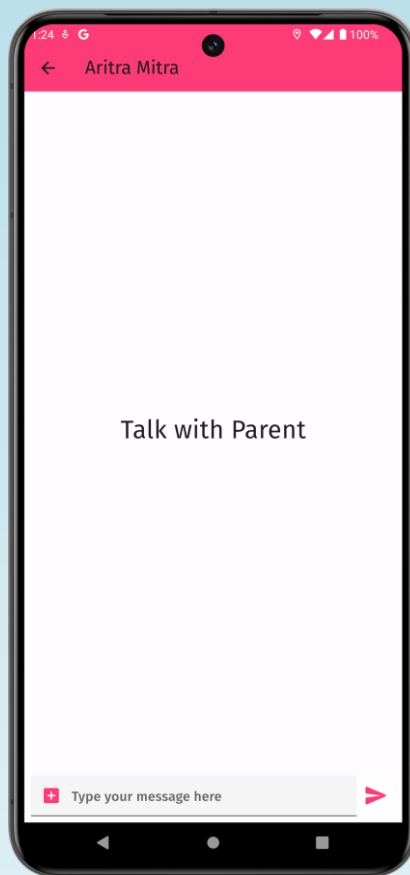
Home Page



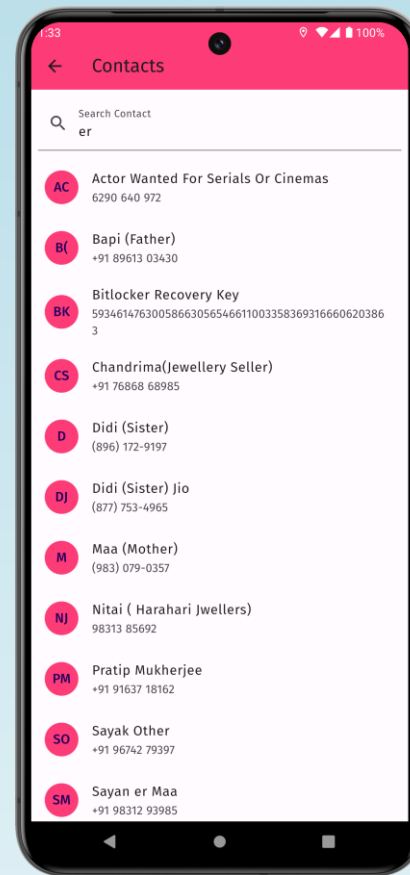
Motivational Page



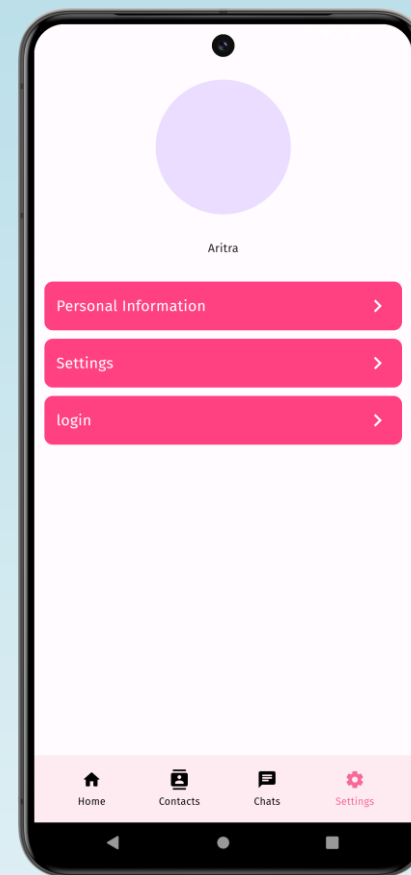
Bottom Sheet
of application



Chat Page



Contact Page



Settings Page

FUTURE SCOPE

- **LOW BATTERY CONSUMPTION**
- **AUTOMATICALLY RECORDING & SENDING TO SELECTED CONTACTS**
- **CALL CREATION**

REFERENCES

RESEARCH PAPERS :-

[1] – Prof. Shubham Bhadre, Divyen Patil, Sanika Bhasme, Vaibhavi Shilimkar, 2024 “Raksha – The Women’s Safety Application”, *International Research Journal of Engineering and Technology (IRJET)* e-ISSN: 2395-0056, p-ISSN: 2395-0072, Volume: 11 Issue: 05 , May 2024

doi: <https://www.irjet.net/archives/V11/i5/IRJET-v11I564.pdf>

[2] – Ms. S.Jayapratha, C.Subashini, R.Vaishnavi, 2024, CREATING APPLICATION ON ANDROID FOR WOMEN’S SAFETY, *INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY (IJERT) NCAAIET – 2024* (VOLUME 12 – ISSUE 01)

doi: <https://www.ijert.org/research/creating-application-on-android-for-womens-safety-IJERTCONV12IS01036.pdf>

[3] – Prof. Roshan Kolte, Prachi Tadse, Priti Nikhare, Vanshika Randive, Snehal Raut, Gayatri Narakhede 2023 “An Android App for empowering Women’s Safety and Security”, *International Research Journal of Modernization in Engineering Technology and Science (IRJMETS)*, e-ISSN: 2582-5208, Volume:05, Issue:04, April-2023

doi: <https://www.doi.org/10.56726/IRJMETS36188>

[4] – Manisha Sharma , Akhil Bansal , Akansha Sharma , Anisha Verma , Prof. Vinay Singh. “An Android Based Women Safety App” , Volume 10, Issue V, *International Journal for Research in Applied Science and Engineering Technology (IJRASET)* Page No: 4758-4764, ISSN:2321-9653, www.ijraset.com

doi: <https://doi.org/10.22214/ijraset.2022.43499>

[5] – Hari Krishnan, Mrs. Usha, “Women Safety Application” , Volume: 7 , Issue: 10 , ISSN: 2349-6002

doi: https://www.academia.edu/64696498/Women_Safety_Application

[6] – Salina Akter Shila, “Safety Apps for Women in Android”

doi: <https://www.slideshare.net/slideshow/safety-app-for-woman/250579298>

[7] – Ms. Priyanka Y. Gonde, Mr. P.B. Ghewari, “REVIEW PAPER ON WOMEN SAFETY SYSTEM”, Volume: 08, Issue: 01 Jan 2021, e-ISSN: 2395-0056 , p-ISSN: 2395-0072

doi: <https://www.irjet.net/archives/V8/i1/IRJET-V8I1315.pdf>

[8] – Mr. Ashutosh More, Ms. Kiran Gawade, Ms. Pradnya Guled, Ms. Shrutika Chippa, Ms. Vijayalaxmi Galgurgi, Prof. Anil Chinchawade, “Sakhi-The Saviour: An Android Application to Help Women in Times of Social Insecurity” , Volume: 08, Issue: 01 Jan 2021, *International Research Journal of Engineering and Technology (IRJET)*, e-ISSN: 2395-0056, p-ISSN: 2395-0072, www.irjet.net

doi: <https://www.irjet.net/archives/V8/i1/IRJET-V8I1104.pdf>

BOOK REFERENCES :-

[1] – Fundamentals of Software Engineering by *Prof. Rajib Mal* (2014), *Department of Computer Science and Engineering, IIT Kharagpur*

WEB REFERENCES :-

[1] - <https://pub.dev/> (Dart Packages)

[2] - <https://firebase.flutter.dev/docs> (FlutterFire Documentation Overview)

THANK YOU!



ESTIMATION OF DEVELOPMENT EFFORT

Total Lines of Source Code = 2.4 KLOC

Hence, it is an **Organic Type** of Software Product

For Organic Software Product : $a = 2.4$, $b = 1.05$, $c = 2.5$, $d = 0.38$ (a, b, c, d – all are constants)

$$\therefore \text{Effort (E)} = 2.4 \times (2.4)^{1.05} \text{ Person-Month} = 6.0177348 \text{ Person-Month} \approx \mathbf{6.02 \text{ Person-Month}}$$

$$\therefore \text{Development Time (T}_{\text{dev}}\text{)} = 2.5 \times (E)^{0.38} \text{ Months} = 2.5 \times (6.02)^{0.38} \text{ Months} \approx \mathbf{4.94 \text{ Months}}$$

$$\therefore \text{Average Staff Size} = E / T_{\text{dev}} = 6.02 / 4.94 \text{ Person(s)} = 1.218623 \text{ Person(s)} \approx \mathbf{1 \text{ Person(s)}}$$

Entity – Relationship Diagram

