

Nirbhaya - Protect the Woman from Unavoidable Circumstances Using Android Application

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Abstract: Now a day everyone is using the smart phone for different purposes. This facility can also be used for the security purposes. In our application we are creating a security system that can be used by the every woman and they can be safe if they are outside of their residence. Parents are very concerned with the security of their daughter, using this application one can always be in touch with their parents or friends. In this application we are using an android mobile phone to provide the security for the woman. Here will provide a way on that woman don't have to worry about mobile screen is locked or what, all they have to do is to start the service once and then that service will run for 24 hours. Here we are using the concept of service in android using that we will run a service in the background always and that service will keep checking for the disturbance and if any problem found then the total screen enables as a button if user presses anywhere on the screen then application will automatically send the message to the saved numbers. And also we are putting the concepts of android location so that the parents can easily get the location of their daughter. In this application we will provide the registration and login system so that if user registered once can login for the next time. And if user logins once they will get the security all the time.

Keywords: Security, woman, protection, android, Location

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I. Introduction

Nirbhaya is a women protection alert system which provides security for women's when they are outside from the home. This application sends message to the contacts saved in Database and it also sends the location in the form of map Hyperlink this link can be viewed on the Google maps. This system uses GPS to detect current position in the form of latitude and longitude coordinates and SQLite database to store all the contacts to which we have to send SMS along with the location link. This system also uses Service which is a component of Android that will helps to run the application in background and it uses Sensor which will uses to check the disturbance. This application provides security to the user for this first user has to register into the application then she can login into the application there is no need of registration every time just she can login into the application then managing activity will appears here she can manage the contacts for sending messages. She can also see the contacts and she will update the contacts by long pressing on the contact and also she can change the password by clicking the menu button. For service activation she has to activate the service by clicking service button in that activate button clicks service starts and this service will always checks the location and also for disturbance. When the user is in danger she will shakes the mobile then sensor activates then total screen enables as a button user can touch anywhere on the screen. Then system will finds the location and it will sends the predefined SMS along with the location in the form of map Hyperlink by using this link receiver finds the current position of the user to the contacts saved in the database.

II. System Analysis

The system analysis includes existing system limitations, proposed system with features, and requirements of the system which includes both hardware and software requirements and also the functionality of each module.

II.I Existing System:

- There is no application that contains handshaking property to activate the sensor to send the SMS.
- It is not having the capability of hand shaking and total screen enabling as a button.
- Whenever she is in danger, previously there exists only one facility that is only she has to press particular button to send SMS.

Disadvantage:

In the existing system we have to press specific button to send SMS.

II.II Proposed System:

- Nirbhaya is an innovative mobile application that enables women to feel security whenever they are outside from the home.
- By using location based service we connect real time and to the right people.
- This application is very useful because she can shake the mobile and touches anywhere on the screen to send the message.
- By this application the user can send the location in the form of a map Hyperlink through SMS and the link can be viewed on the Google maps.

Advantages:

- We are focusing on the information security of the user in our proposed system.
- In our system first user has register .Once registered she has to login and then she can use the services provided in Nirbhaya

III. Modules

Functionalities f Each Module:

Mainly the designing of Nirbhaya system involves the following modules. The functionalities of each module are described below.

Modules:

1. Registration
2. Login
3. Service Handler
4. Thread
5. Message
6. Location

Registration:

- This module allows the user to enter the username and password and hint which was given after installation of this application.
- In this user has to confirm the password and have to give a hint which is useful whenever user forgot the password
- Once user registered into the application there is no need to register again the register will becomes as a login button.
- Then after the user has to login into the application then login module starts.

Login:

- In this module user has to login into the application by giving the user name and password.
- This module provides an option that is “**Forgot Password**”. This helps to get the password if the user did not remember the password.
- In Forgot password user has to give the hint which she gave at the time of registration then the system will checks the hint if hint matches it displays the password.
- The application checks for validation in database for user name and password if those are valid then it allows moving forward.
- Then user can move into another module i.e., Service Handler module.

Service Handler:

- This module is also called managing activity .In this module it displays following things.

 1. Add Contacts
 2. View Contacts
 3. Service

- Add Contacts allows the user to save the contacts in the database to send the messages.
- View Contacts allows user to see the contacts that she saved in the Database. In this by long pressing on the contact menu will appears which contains following attributes.

 1. Update
 2. Delete One

3. Delete All
4. Update allows user to update the contact.
5. Delete One allows user to delete the particular contact.
6. Delete All allows user to delete all the contacts present in the database.
7. Service provides following options.
 1. Activate
 2. Deactivate
 - Activate allows user to start the service in background.
 - Deactivate allows user to stop the service.
 - By clicking menu button it displays an option **“Change Password”**. By using this user can change the password.

Location:

- This module is to get the location in the form of latitude and longitude this will be in the form of map Hyperlink. This module always checks the location after service activated.

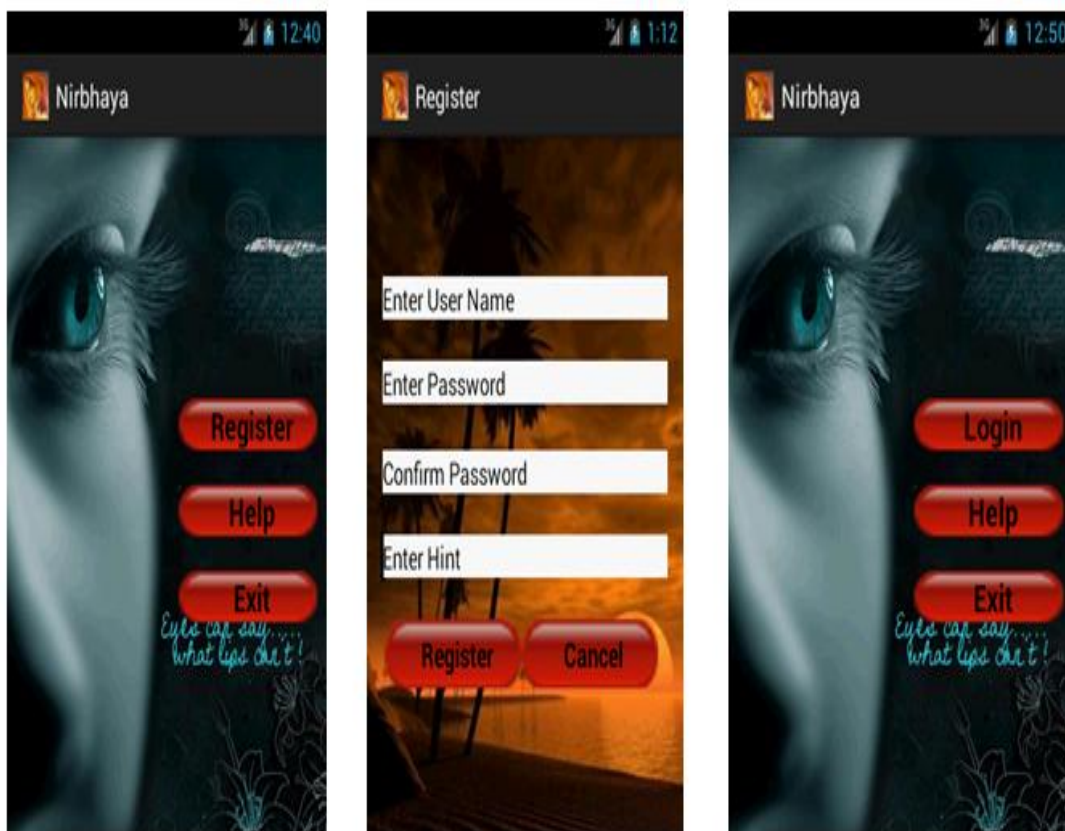
Thread:

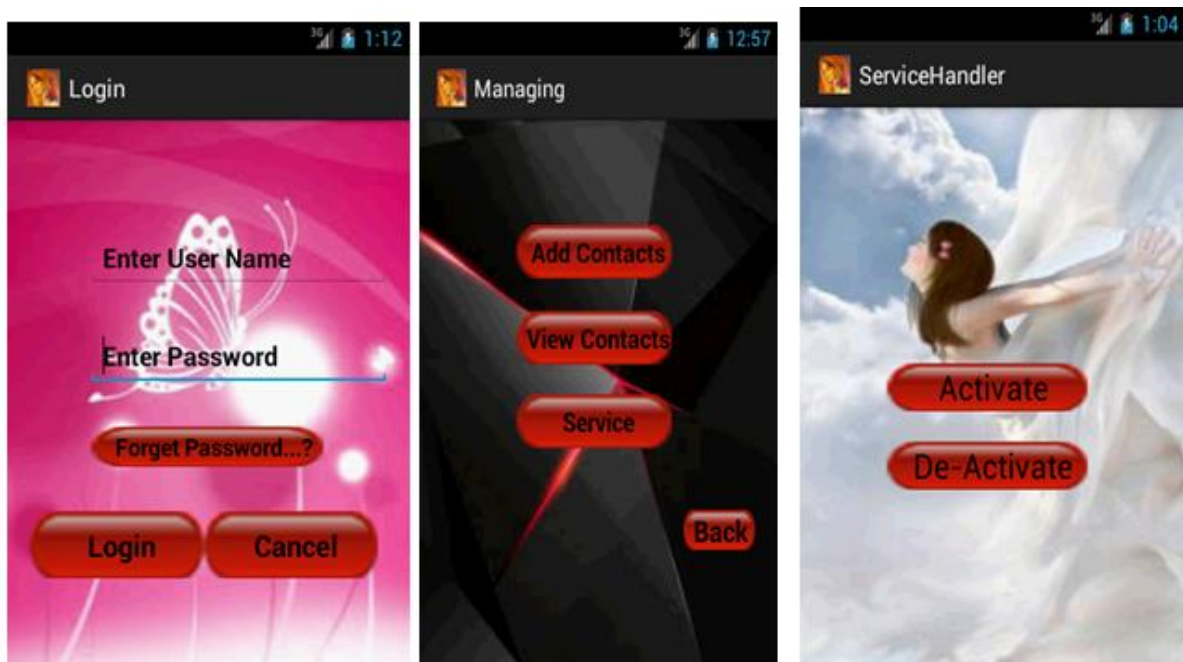
- In this module whenever the user shakes the mobile it will checks the range to the defined range if equals sends message.

Message:

- After getting the alert message from the thread module the message process module gets the location from the location and the predefined message and the application will sends the SMS along with the location in the form of map Hyperlink to the contacts that are saved in the Database.
- By using map Hyperlink the receiver can get the exact location of the user and the link can be viewed on the Google maps.

IV. Results





V. Conclusion

This Application presents security for mobiles whenever they outside from home. Our Application has an additional future of sending SMS by shaking the mobile by shaking mobile and the whole screen enable as a button. This application sends message to the contacts saved in Database and it also sends the location in the form of map Hyperlink this link can be viewed on the Google maps. This system uses GPS to detect current position in the form of latitude and longitude coordinates and SQLite database to store all the contacts to which we have to send SMS along with the location link. This system also uses Service which is a component of Android that will helps to run the application in background and it uses Sensor which will uses to check the disturbance. When the user is in danger she will shakes the mobile then sensor activates then total screen enables as a button user can touch anywhere on the screen. Then system will finds the location and it will sends the predefined SMS along with the location in the form of map Hyperlink by using this link receiver finds the current position of the user to the contacts saved in the database.

Books

1. Android A Programmers guide by-Jerome (J.F) Dimar4zio.
2. Beginning Android Application Development-Wei MengLee.
3. Beginning Android-Mark L.Murphy.
4. Learning Android-Marko Gargenta.
5. OReilly Android Application Development.
6. Professional Android2 Application Development-RetoMeier.
7. Android For Programmers by Deitel & Deitel

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