Chapter 1

INTRODUCTION

Project description

Proximity alert is an application for Android advanced mobile phones. It fills in as an update application dependent on the area of the client. Client is required to make reference to the area of intrigue where the alert must be actuated. At the point when client enters inside the zone secured by the range from the area of intrigue, alert gets initiated. The application utilizes various area sources, for example the two GPS and versatile network. Using the application the client can set an alert for a specific geological area through his android telephone. The Proximity caution can likewise be related with an update message. As the client achieves the foreordained area, the caution rings and a notice is shown to the client which has the related message. The client can erase the alert once the undertaking at the ideal area is finished.

Scope

Our complex life sometimes makes us forget the important or urgent tasks throughout the day. We are always in some kind of rush which results in forgetting things. Sometimes, we even forget our basic needs.

We as a whole need a little suggestion to do things some of the time. We live in a world loaded up with diversion and different sparkly things that frequently lead us off base of whatever it is we're attempting to do. Along these lines, setting updates cannot exclusively be profitable, however a friend in need in certain circumstances.

There are many apps for reminding the tasks to complete; based on time. However there are circumstances where the alert depends on the user's present location and not time.

Consider the following scenarios

1. The user is travelling using a public transport like bus/train and dozes off during the journey. He may miss his desired destination/stop if he fails to wake up from sleep.

2. Consider courier delivery people, traveling sales person, people who handle delivery of products by ecommerce sites like Flipkart, Amazon, Myntra etc. These people need to do different kind of works in different places.It is difficult for them to remember all the places.

The solution for all the above scenarios is the **Proximity Alert using Global Positioning System**app. It introduces a new concept of reminding the tasks to be completed based on the location of the user. Also, the app would help the user to discover how far he is from specific location where he has some task to finish. Today most of the people are carrying smart phones wherever they go. Hence this app can be used by anyone with an Android smart phone.

Objectives of the Project

1. Location based alert instead of time schedule based alarm. Provides alert to the user when the desired location is reached.
2. To remind users of the tasks to complete in daily life based on location. The alert also displays the task along with the description of the task.
3. Simple and easy to use. Does not involve learning curve.
4. The app lets the user create reminders in the fastest way possible using mobile phones. A way that isn't time consuming and assures the user that he will remember to do everything he needs to do.

Chapter 2

LITERATURE SURVEY

2.1 Existing System and Proposed System

Individual assignment updates have been imperative for present day individuals, so as to help them to remember their errands at explicit conditions. Customary paper based updates are as yet helpful; however they can't be sorted out effectively. Electronic updates dependent on the timetable in Cell telephones are progressively productive and picking up fame, however such updates are for the most part activated by time. In the current framework, alarms are set for the particular time. The current framework is doing every one of the procedures physically by making to do notes or the frameworks depend on schedule. The client needs to do the rundown of the whole errand he needs to perform with the subtleties of time. This is so dull and not in every case directly as we can't do the thing on schedule. This procedure is so troublesome on the grounds that we need to convey notes or need to get things done on time which isn't constantly conceivable.

Paper records, frequently composed on the omnipresent Post-It, are lightweight and along these lines effectively compact. Therefore, they are regularly utilized for assignments like shopping for food, which require leaving the "base". Be that as it may, records present issues at reference time. For instance, since records are little, they are anything but difficult to lose. Restricted size likewise restrains the quantity of things that can be recorded. As records grow, individuals resort to packing in new things anyway they can, commonly composing later things littler and between past things. Also, as subjects cross out finished things, the rundown winds up messier; unfulfilled things may go unnoticed. At the point when conditions merit, subjects recopy somewhat finished records onto new bits of paper.

Drawbacks of Existing System

Making To-do notes is unwieldy and tedious. One needs to convey the paper, keep paper safe and there was a high probability of paper getting lost.To-do list as application on portable and PC need following and notice highlight. So there is high plausibility that client of the application may not make sure to look at the plan for the day. Electronic updates dependent on the logbook in phones are generally activated by time. For this situation we have to set update as per time.

Proposed System

Ordinarily there are conditions where the alarm/update relies upon the present area of the client and not on schedule. As a rule, errands are just important to be performed at a particular area, so it would be helpful if updates for those assignments can be activated just when the individual to be reminded is physically close or situated at that area.

The proposed application can give an alert in perspective on a particular area. Additionally, the application would assist the customer with discovering how far the customer is from the particular area.

The proposed app can give a caution in view of a specific location. Also, the application would help the client to discover how far the client is from the specific location.

Advantages of Proposed System

1. Alarm is based on location and not on time
2. It is an augmentation and propelled type of plan for the day helping the client with day by day undertakings throughout everyday life.

2.2 Feasibility Study

Feasibility Study considers is a methodology that recognizes, portrays and assesses hopeful android application and chooses the best application include for the activity. A gauge is made whether the distinguished clients need might be fulfilled utilizing the current systems administration offices and equipment advances. The investigation will choose whether the proposed android application will be financially savvy from a business perspective and in the event that it very well may be created utilizing the given existing budgetary limitations.

The key contemplations associated with the attainability investigation of our proposed application are the accompanying:

- Operational Feasibility
- Technical Feasibility
- Economical Feasibility
- Schedule Feasibility

The system is tested for each feasibility and in any case if the system is not feasible to the organization then any further work done is waste of valuable resources.

Operational Feasibility

Operational plausibility is vital as it guarantees that the undertaking created is a fruitful one. The operational possibility of this venture is high since it is easy to understand and the application gives all the normal yields to the client.

Technical Feasibility

Specialized possibility examination makes a correlation between the dimension of innovation accessible and that is required for the improvement of the venture. The dimension of innovation comprises of the components like programming apparatuses, and stage created, etc. Since, the assets for the improvement of the venture is accessible, the task is in fact achievable.

Economical Feasibility

This is the most significant piece of the venture on the grounds that the terms and conditions for executing the task must be monetarily practical. The danger of account does not exist as the current equipment that is advanced mobile phone is adequate and the product is free of expense. In this way, it is trusted that the framework is monetarily practical.

Schedule Feasibility

Calendar possibility is characterized as the probability of an undertaking being finished inside its ideal time allotment. Since this task has a high probability of finish by the ideal due date, plan attainability is viewed as high.

2.3 Tools and Technologies Used

Android

At the point when Android originally touched base in 2008, it was nearly observed as a poor connection to the considerably more slick iOS on Apple iPhone. In any case, rapidly, through assorted handset offers that hit home with the commonsense cost cognizant just as the design cognizant and tech hungry purchasers, Android client numbers detonated. Presently, after eight noteworthy discharges, the yearly clearance of Android gadgets is expanding consistently.

The reason producing for Android gives such a buzz is the idea of the gadgets. They are profoundly close to home. We can make applications that really interface with individuals' lives. We can instruct, engage, and arrange, etc. Everybody utilizes them, from newborn children to seniors.

JAVA

Java is a language that enables us to compose code once that can be utilized again and again. This is valuable since it spares us time and enables us to utilize other individuals' code to perform undertakings we may somehow not have room schedule-wise or information to compose for ourselves. More often than not, we don't have to see this code or even ability it does its work!

Java is a programming language that has been around significantly longer than Android. It is an article situated language.

- Java I s a designer's language
    - Java is durable and predictable

- Java is a known language; designers know it and don't need to learn it
- It is more diligently to shoot yourself with Java than with C/C++ code since it hasno pointer number juggling
- It keeps running in a VM, so no compelling reason to recompile it for each telephone out there and simple to verify
- There are a substantial number of advancement apparatuses for Java
- Several cell phones officially utilized Java ME, so Java was known in the business
- There are countless effectively capable in Java.
- Java has immense open source support, with numerous libraries and instruments accessible to make engineers life simpler.
- Java shields you from a significant number of the issues inborn in local code, similar to memory releases, terrible pointer utilization, and so forth.
- Java enables them to make sandbox applications, and make a superior security display with the goal that one terrible App can't bring down your whole OS.

XML

An increase language is a component to recognize structures in a report. XML (Extensible Mark-up language) is an increase language for records containing organized data. As a meta-language, XML is going to depict information and its structure; while HTML is going to show the information.

XML isn't to supplant HTML, however compliment it by enabling essayists to make and arrangement their very own archive increase. For HTML, The labels used to increase HTML records and the structures of HTML archives are predefined. For XML, there is no predefined label set, so there is no any biased semantics. Authors are given an office to characterize labels and the auxiliary connections. That is the extensible component of XML.

To be legitimate, XML records ought to be very much shaped. That implies XML reports pursue some exacting standards. For instance, each opening tag in XML reports must have a coordinating shutting tag. While in HTML, matching is discretionary for a portion of the labels, and just the opening tag is required.

SQLite Database Service

SQLite is a relational database, the board framework, like Oracle, MySQL, PostgreSQL and SQL Server. It executes the greater part of the SQL standard, yet not at all like the four database motors referenced above, it's anything but a customer server database motor. Or maybe, it is installed into the end program. This means you can package a SQLite database with your application, and gain admittance to all the intensity of a social database inside your application. SQLite is local to both Android and iOS, and each application can make and utilize a SQLite database in the event that they so want. Indeed, in Android, gadget contacts, and media are put away and referenced utilizing SQLite databases.

2.4Hardware and Software Requirements

Hardware Requirements

Hard disk	1TB
RANDOM ACCESS MEMORY	4 GB recommended
Device	Android mobile

Software Requirements

OS	Windows 7/8/10
Languages Used	Java, XML, SQL
Development Environment (IDE)	Android Studio
Database	SQLite
Software	JDK, Android SDK, DB Browser for SQLite

Chapter 3

SOFTWARE REQUIREMENT SPECIFICATION

3.1 Users

The user of this application is courier delivery people, traveling sales person, people who handle delivery of products by ecommerce sites like Flipkart, Amazon, swiggy, zomato, etc. These people need to do different kind of works in different places. It is difficult for them to remember all the places so our application remembers those places when the user reached desired location. Another user is travelling using a public transport like bus/train and dozes off during the journey. He may miss his desired destination/stop if he fails to wake up from sleep so the application gets ring when the user reached the specific stop. Hence this app can be used by anyone with their smart phones.

3.2Functional requirements

Modules

- **Registration:**New users can create their account by providing required information to the app.
- **Login: After successful registration, user has to login to the app**
- **Forgot Password:** In case the registered user forgets his password**,** the registered password will be sent to the mail and mobile given during registration
- **Change Password:** The user has an option to change his password
- **Edit Profile:** User can edit his profile details
- **Add Task:** User can set an alarm for any location in the map. Along with the location the user can also add a title and description for the task.
- **Edit Task:** User can also edit the already added alarm details.
- **Finish Task:** Once the task is completed, the user can remove it.
- **View Tasks:** He can see all the added tasks according to their location on Google Maps

- **Notification:** Once the user is in the proximity of the location added, a notification is sent to the user. This notification will have the title and description of the task.
- **Menu:**
  - About
  - Feedback
  - Logout

3.3Non-functional requirements

These are imperatives inside which the framework must work. The non-useful prerequisite explains an exhibition normal for the framework.

Performance

The application must be intelligent and the postpones included must be less. So in each activity reaction of the application, there are no prompt postponements. Asset utilization of this application ought not achieve a sum that renders the cell phone unusable. The application ought to be fit for working out of sight should the client wish to use different applications.

Usability

The application must deal with and explore in the most anticipated manner with no deferrals. The application should transverse immediately between its states.

Reliability

The application should meet the majority of the practical necessities with no startling conduct. At no time should the measure yield show inaccurate or out-dated data without alarming the client to potential mistakes. Likewise proper mistake messages are shown when invalid information is entered.

Availability

The application will be open reliably on the customer's Android contraption, as long as the device is in proper working solicitation.

Maintainability

The item should be made obviously and compactly. The code will be especially announced. Explicit thought will be taken to design the item independently to ensure that upkeep is straightforward.

Portability

This item will be planned to continue running on any Android working system version 4.0 or higher. The item will be forward useful for OK currently released Android working system variations (upto 7).

Response time

The time taken by the framework to finish an errand given by the client must be exceptionally less. The application must react quickly to the errand mentioned.

Chapter 4

SYSTEM DESIGN

4.1 System Perspective

In a framework point of view one ought to be cautious about considering the framework with regards to the earth and not as a disconnected element. Thus one ought to incorporate the cooperation's and connections between the framework and the earth.

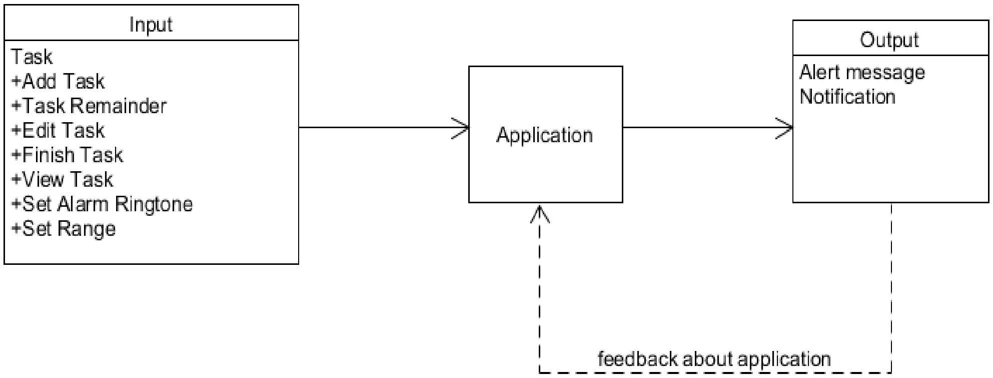


Fig 4.1 System Perspective

4.2 Context Diagram

The Context Diagram exhibits the outline work under thought as a singular irregular state system and a short time later shows the relationship that the structure has with other outside substances.

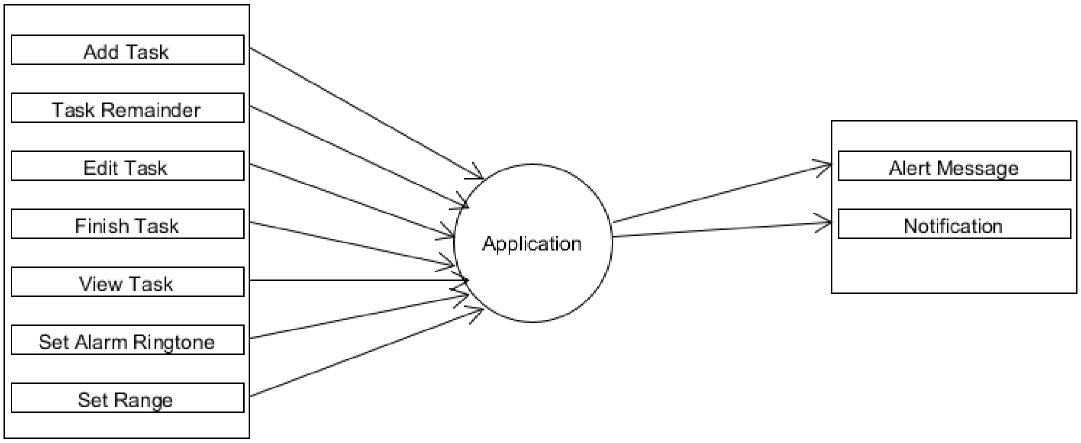


Fig 4.2 Context Diagram

Chapter 5

DETAILED DESIGN

5.1 Use Case Diagram

A Use case chart is a graphical portrayal of the client's coordinated effort with the edge work.Use cases are the evenly formed ovals. This speaks to the diverse uses that a client may require. Use cases are diagrammed to be effectively watched, paying little personality to who is looking outline..

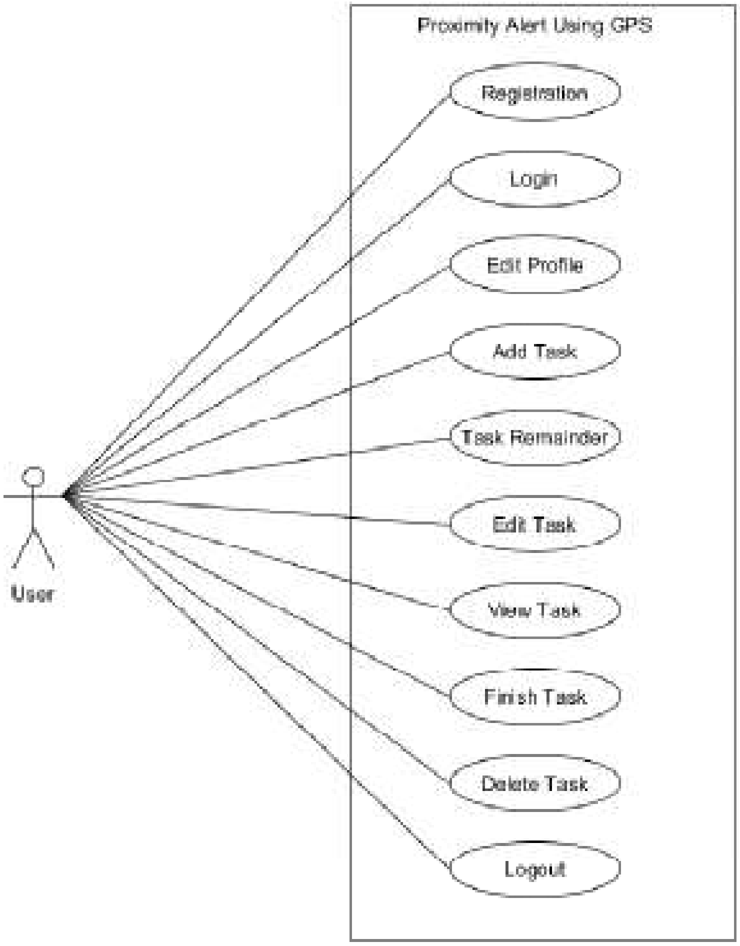


Fig 5.1 Use Case Diagram

5.2 Sequence Diagram

This graph shows object interchanges coordinated in time plan. It depicts the things and classes connected with the circumstance and the progression of messages exchanged between the articles expected to finish the value of the circumstance. Progression traces are generally associated with use case recognize in the Logical View of the edge work being taken a shot at. Progression diagrams are now and again called event outlines or event circumstances.

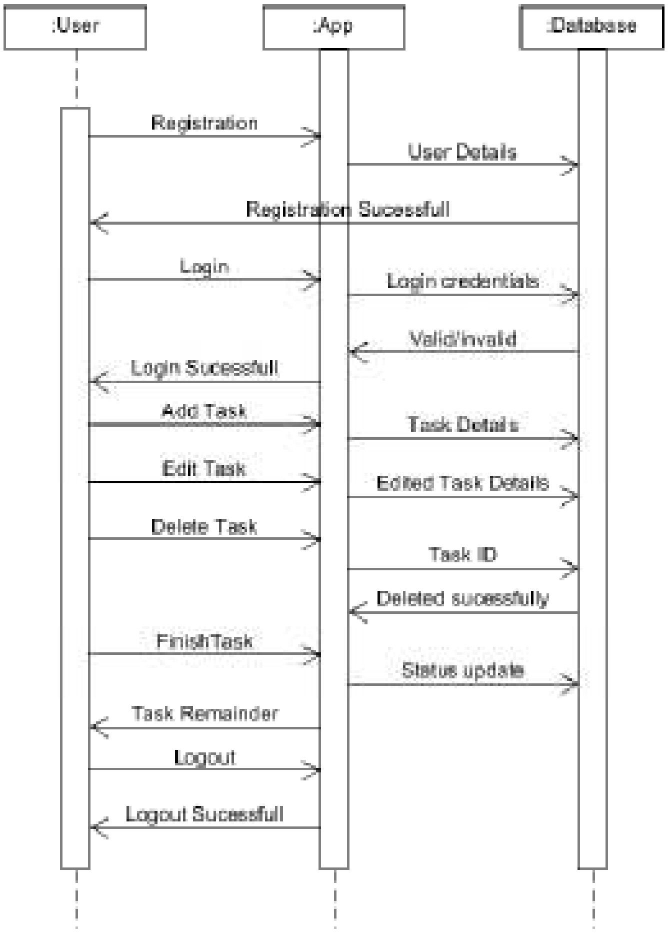


Fig 5.2 Sequence Diagram

5.3 Collaboration Diagram

Otherwise called Joint exertion charts (known as Communication Diagram in UML 2.x) are used to show how expert tests partner to play out the con channel o f a particular use case, or a bit of a use case. Close by progression diagrams, joint exertion are used by organizers to describe and clear up the occupations of the things that play out a particular stream o f events of an utilization case.

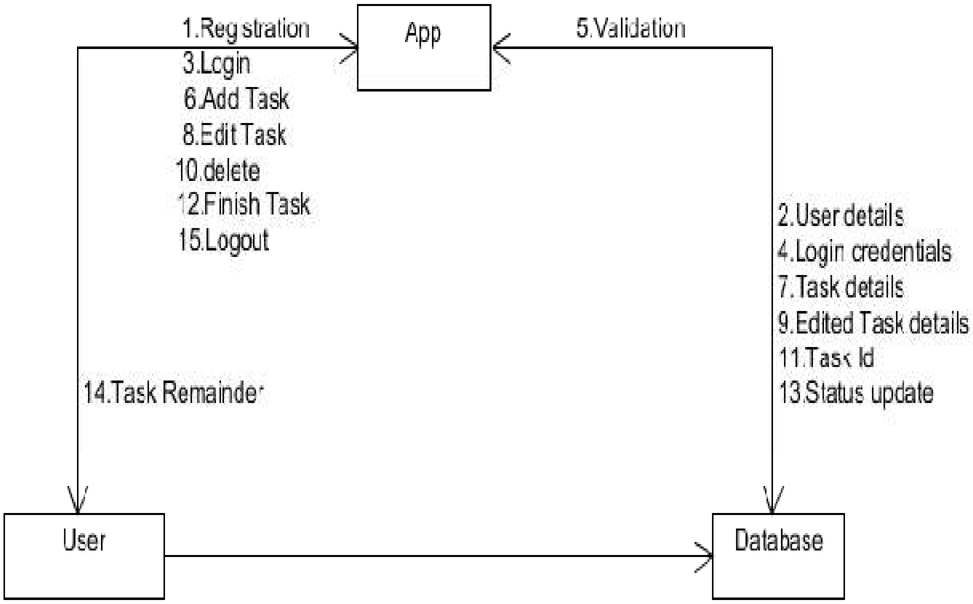


Fig 5.3 Collaboration Diagram

5.4 Activity Diagram

Action Diagram is another basic chart in UML to depict the dynamic pieces of the system. This graph is on a very basic level a flowchart to address the stream beginning with one act particle then onto the following activity. The activity ca n b e depicted as an assignment of the system. The control stream is pulled in beginning with one assignment then onto the following. This stream can be back to back, broadened, or concurrent. Development plots manage all kind of stream control by using particular segments, for instance, fork, join, etc.

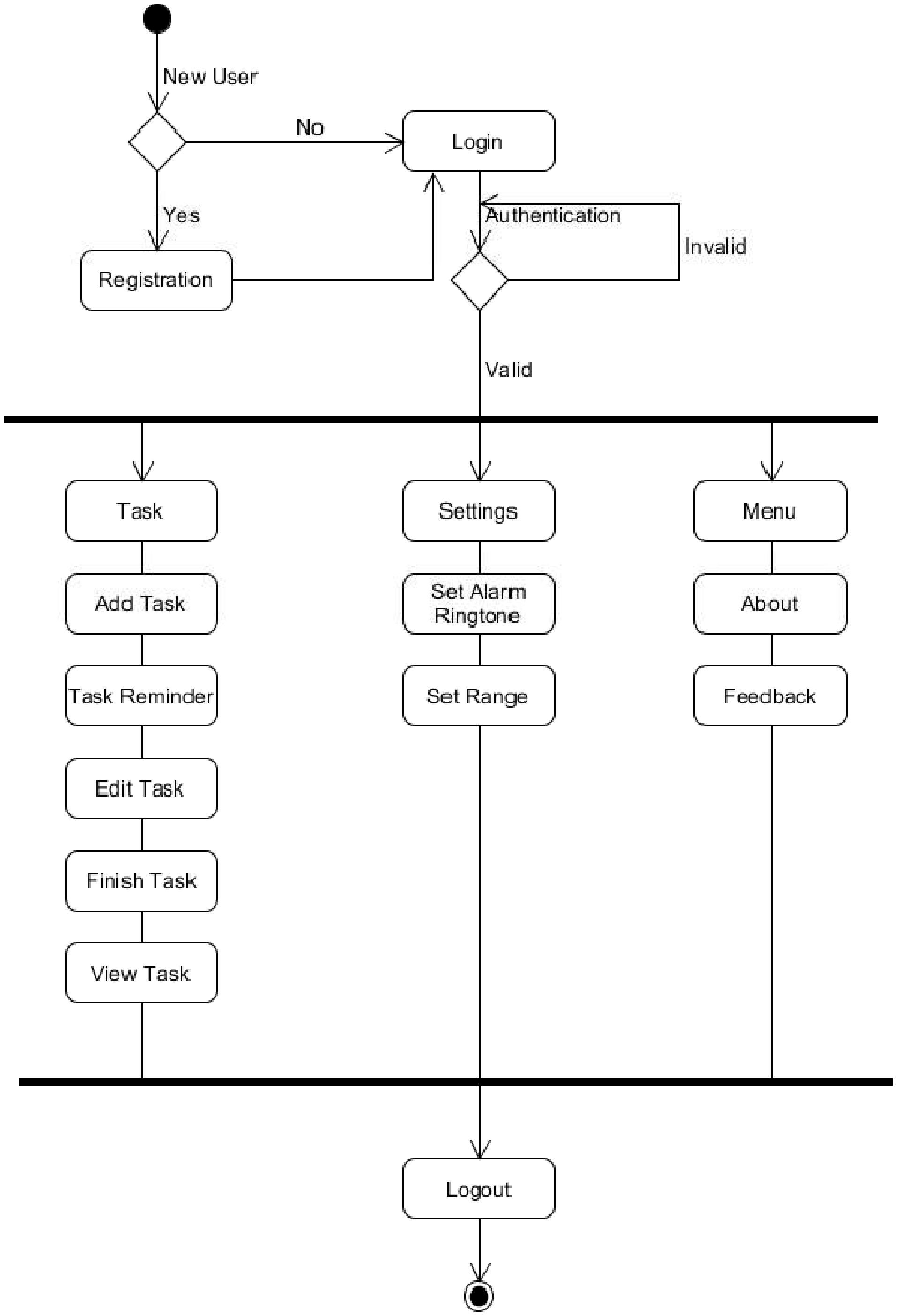
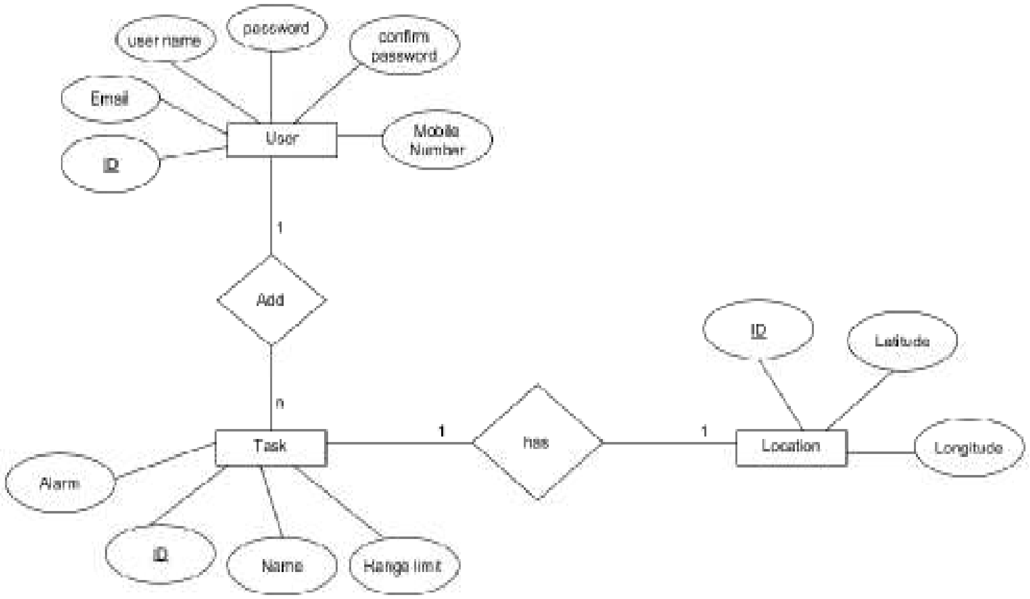


Fig 5.4 Activity Diagram

5.5 Database Design

A substance relationship chart is a sort of flowchart that demonstrates how entities,for precedent people articles,or thoughts related to each other inside a framework.ER Diagrams are as often as possible used to structure or explore social databases in the fields of programming building,business information frameworks,instruction and research.



ER diagram

In the above figure,

Entities are: User, Task and Location.

Relationship:Add and has.

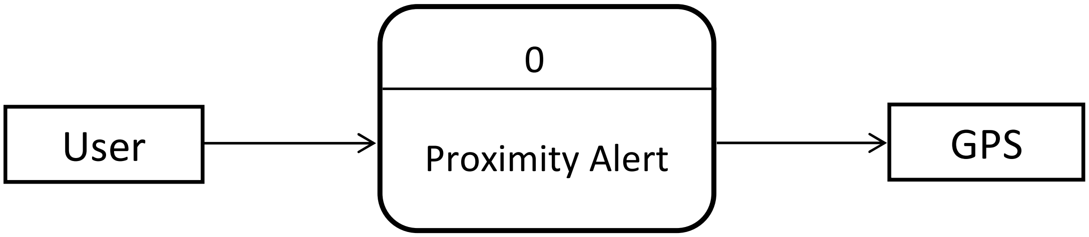
Primary Keys: User ID,Task ID,Location ID

DATA FLOW DIAGRAM

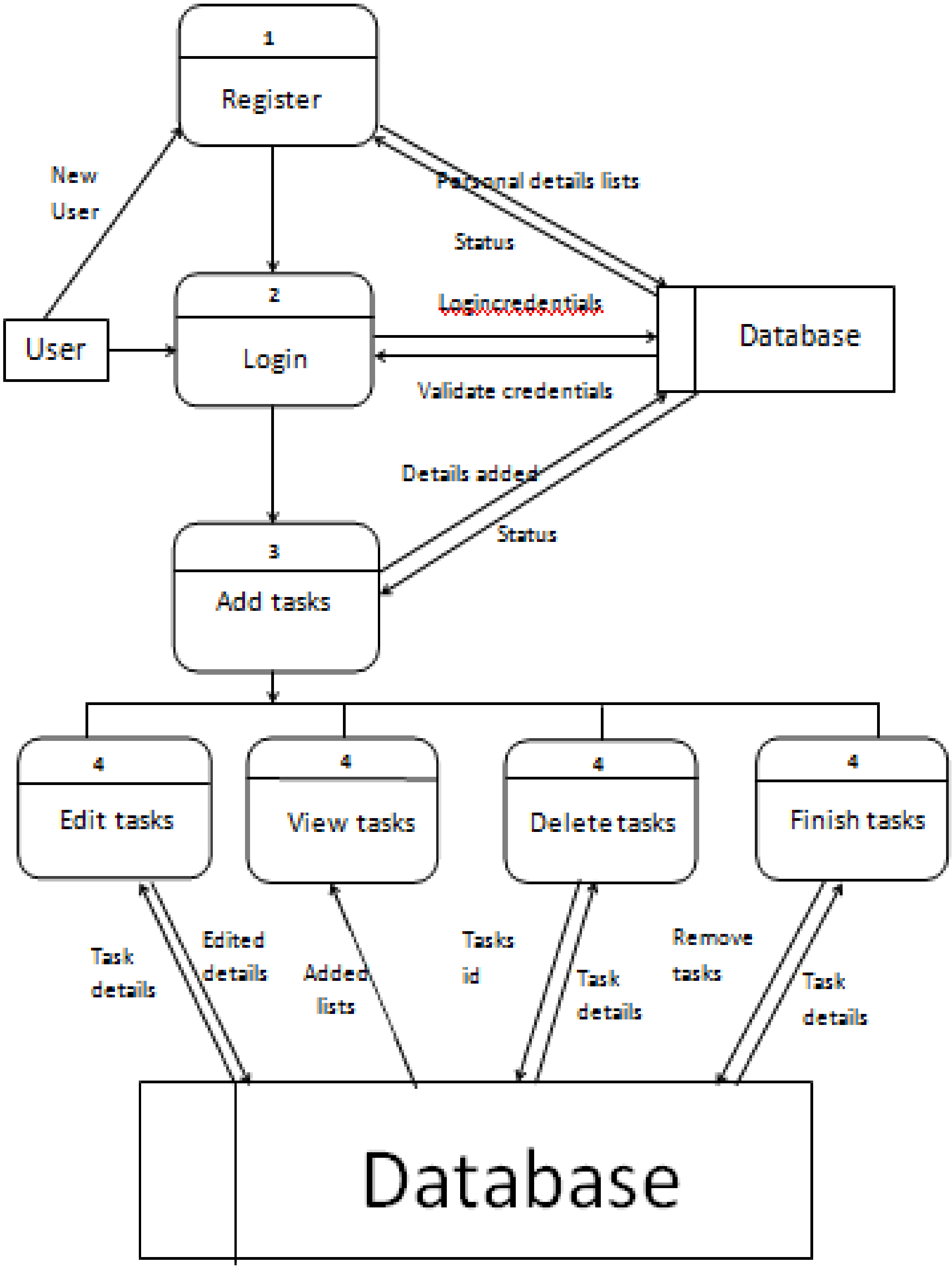
DFD maps out the surge of information for any technique or system. It uses portrayed pictures like square shapes and circles notwithstanding short substance names, to show data inputs, yields, amassing centers and the courses between each objective.

DFD levels

- A DFD can jump into continuously more detail by utilizing levels and layers, focusing in on a specific piece. DFD levels are numbered 0, 1 or 2, and periodically go to try and Level 3 or past. The essential dimension of detail relies upon the extent of what you are attempting to achieve.
- DFD Level 0 is likewise called a Context Diagram. It's an essential review of the entire framework or procedure being dissected or demonstrated. It's intended to be an initially see, demonstrating the framework as a solitary abnormal state process, with its relationship to outer substances. It ought to be effectively comprehended by a wide gathering of people, including partners, business investigators, information experts and engineers.



- DFD Level 1 provides a more detailed breakout of pieces of the Context Level Diagram. We will highlight the main critical operations being carried out by the system, as we break downthe high-level process of the Context Diagram into its sub processes.

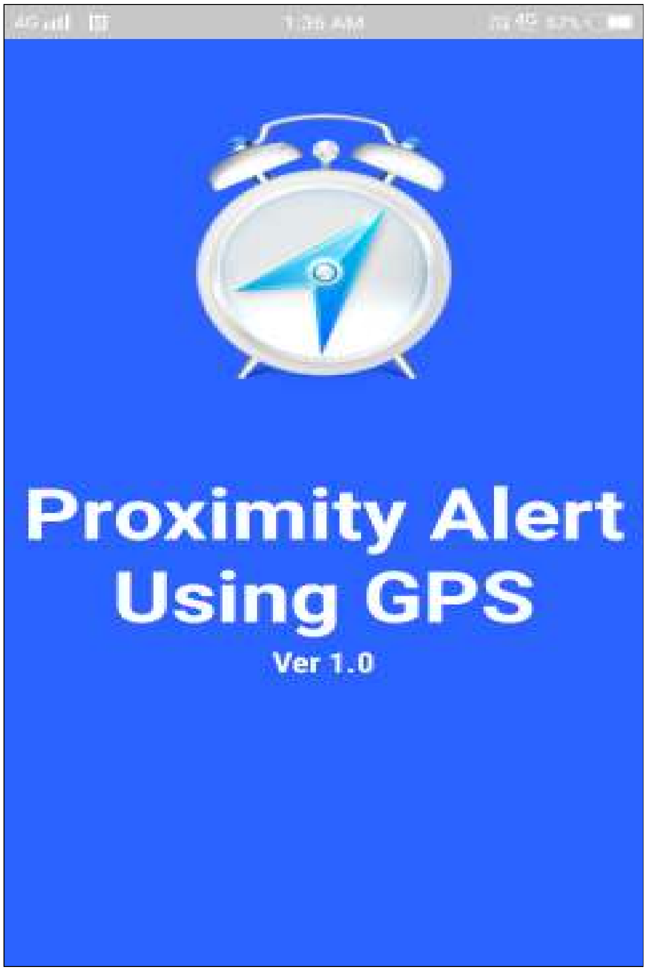

1
Register
New
User
Personal details lists
Status
2
Login
User
Logincredentials
Database
Validate credentials
Details added
Status
3
Add tasks
4
Edit tasks
4
View tasks
4
Delete tasks
4
Finish tasks
Task
details
Edited
details
Added
lists
Tasks
id
Task
details
Remove
tasks
Task
details
Database

Chapter 6

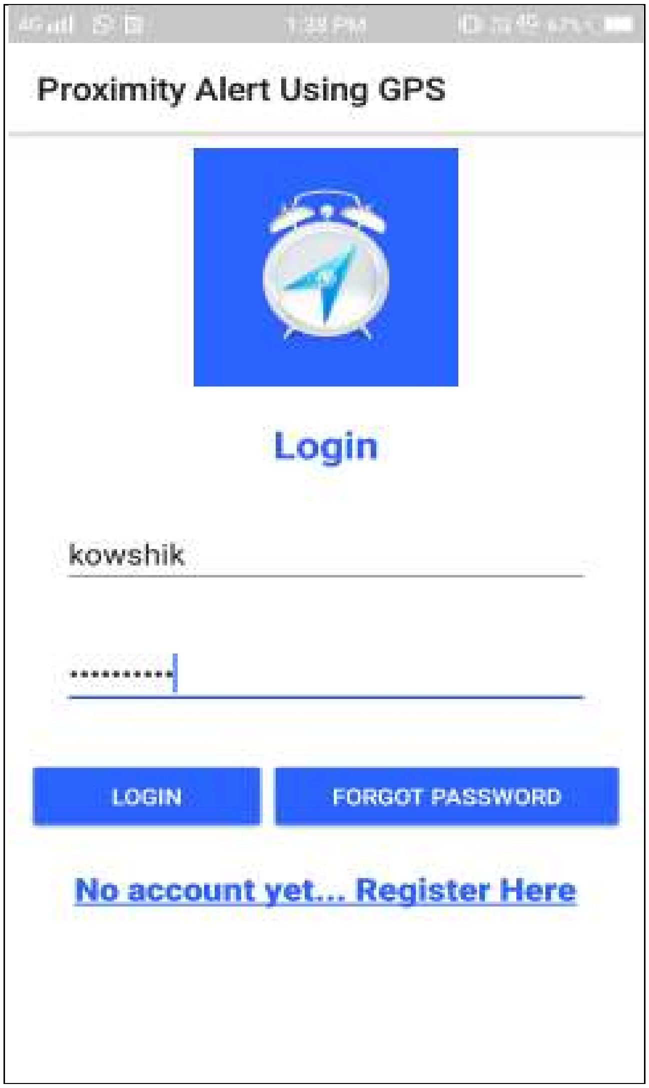
IMPLEMENTATION

6.1 Screen Shots

Splash screen:



User login screen:



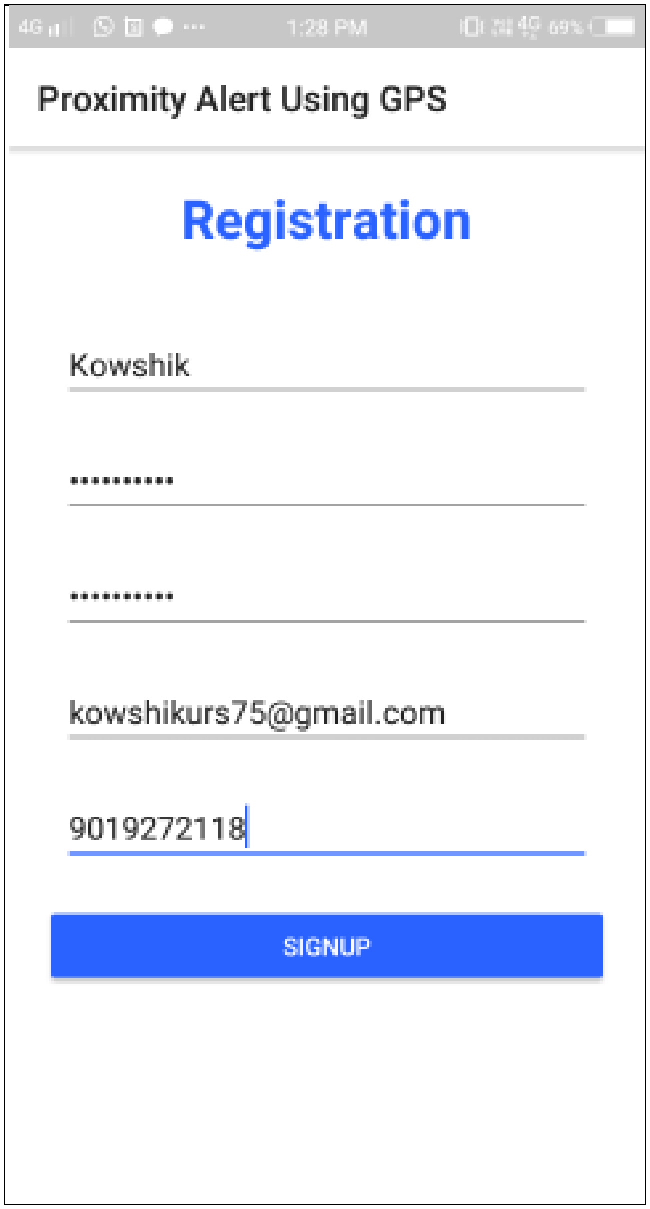
Proximity Alert Using GPS

Login

kowshik

••••••••••

User register screen:



Kowshik

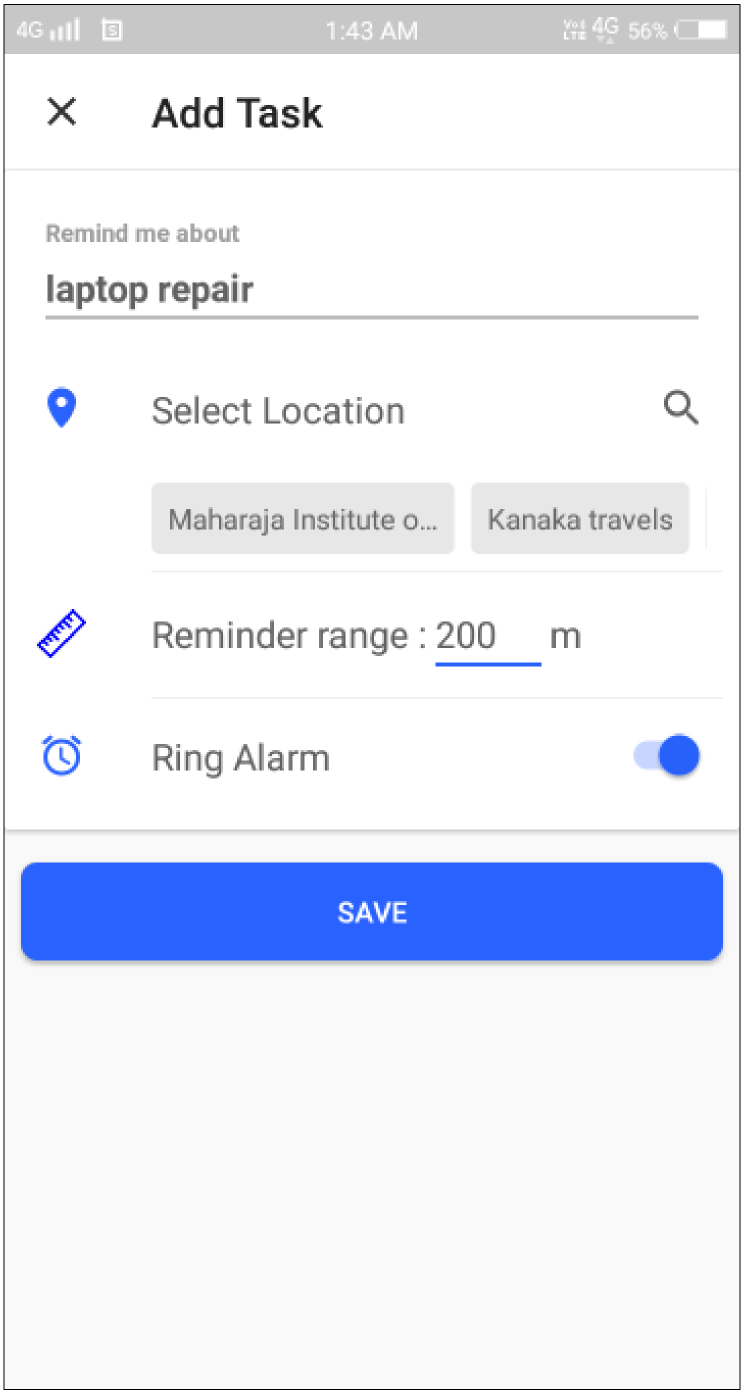
••••••••••

••••••••••

kowshikurs75@gmail.com

9019272118

Add task screen:



Remind me about

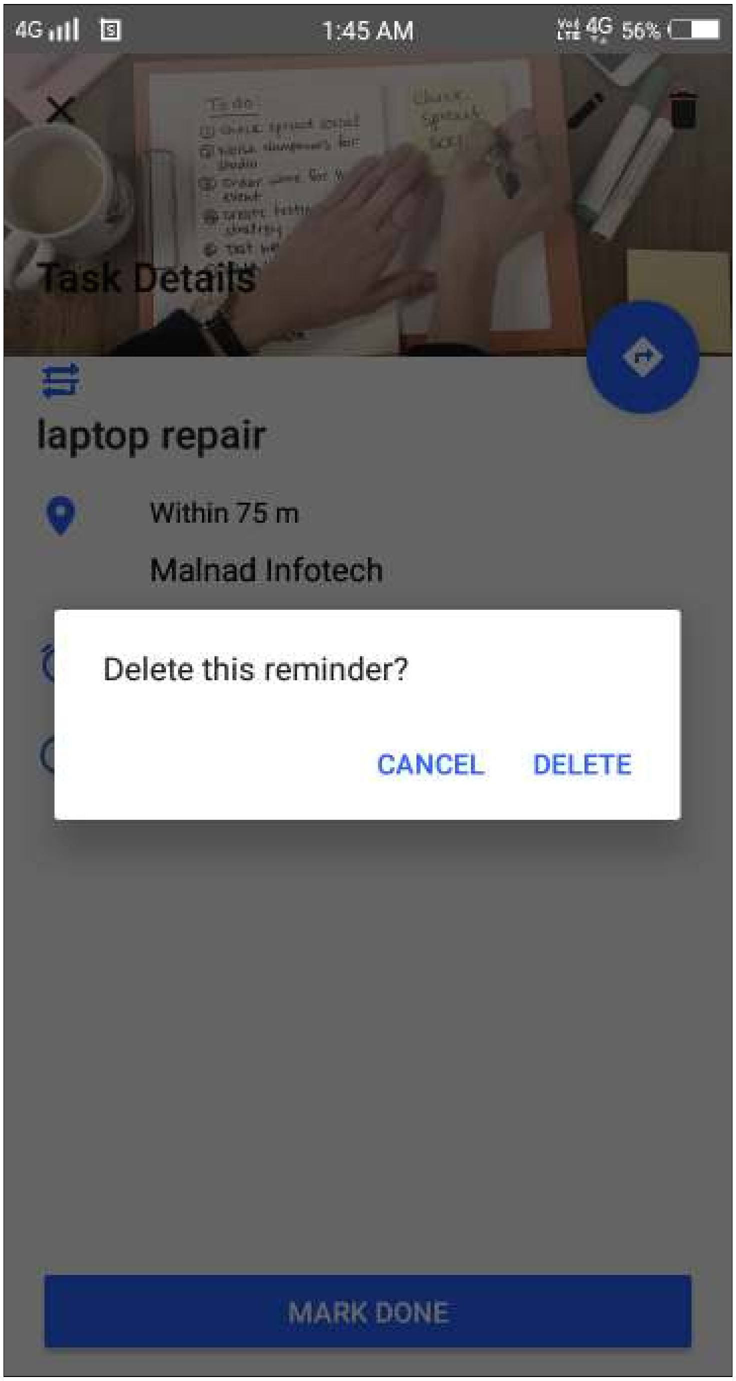
laptop repair

Select Location

Reminder range : 200 m

Ring Alarm

Delete task screen:



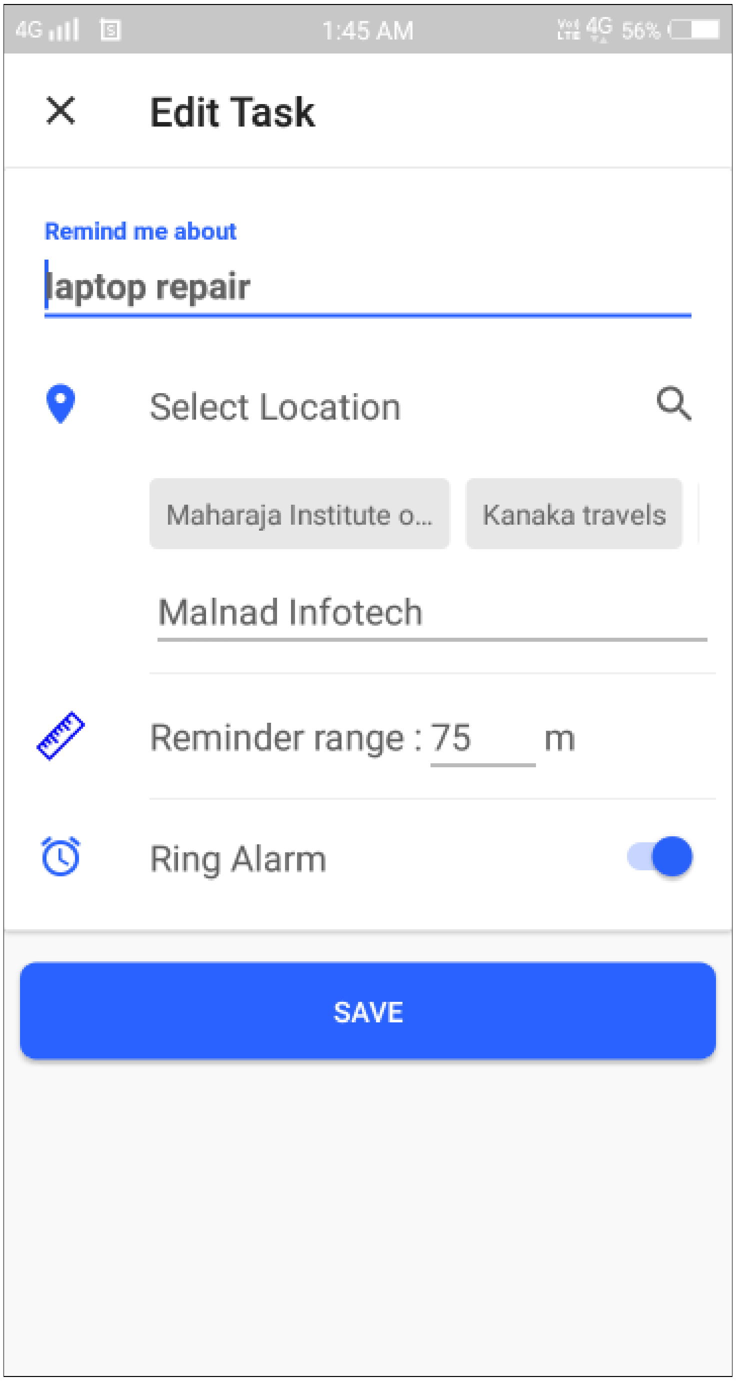
laptop repair

Within 75 m

Malnad Infotech

Delete this reminder?

Edit task screen:



Remind me about

laptop repair

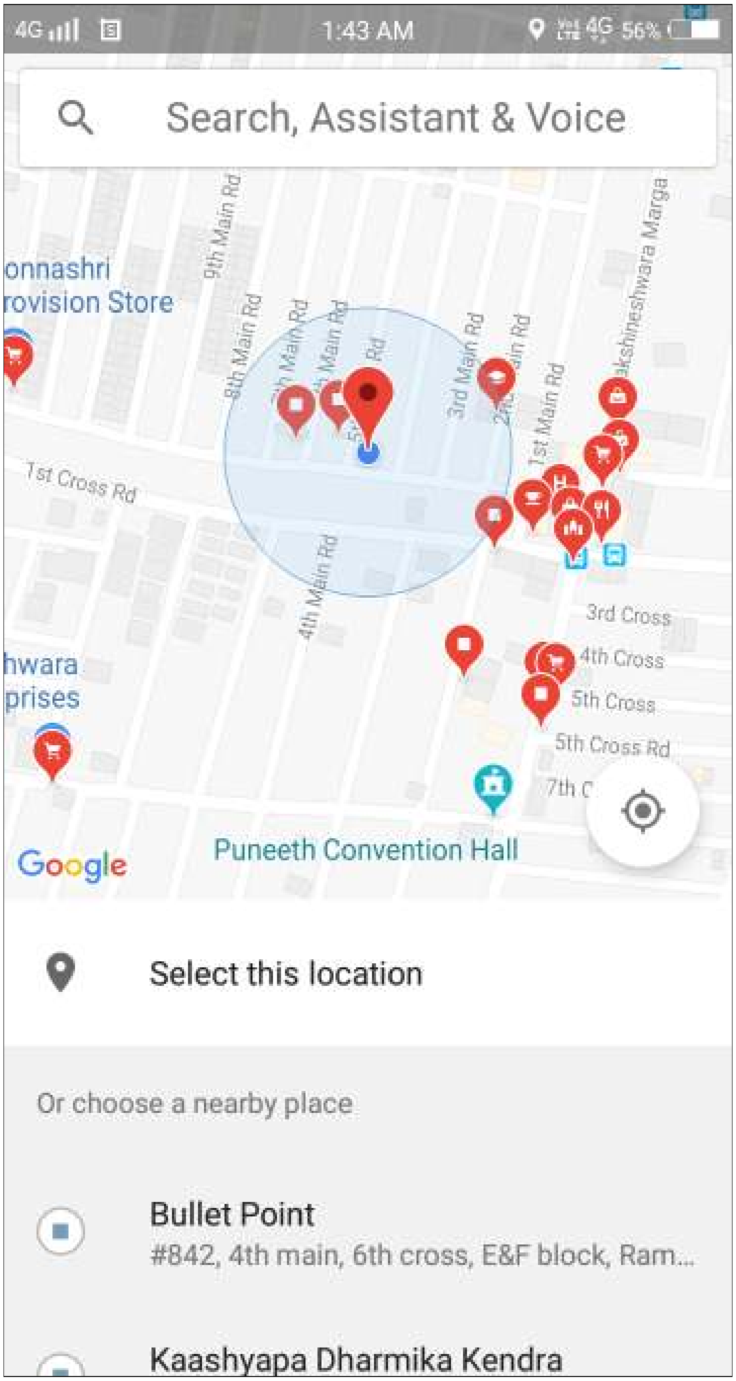
Select Location

Malnad Infotech

Reminder range : 75 m

Ring Alarm

Add location screen:



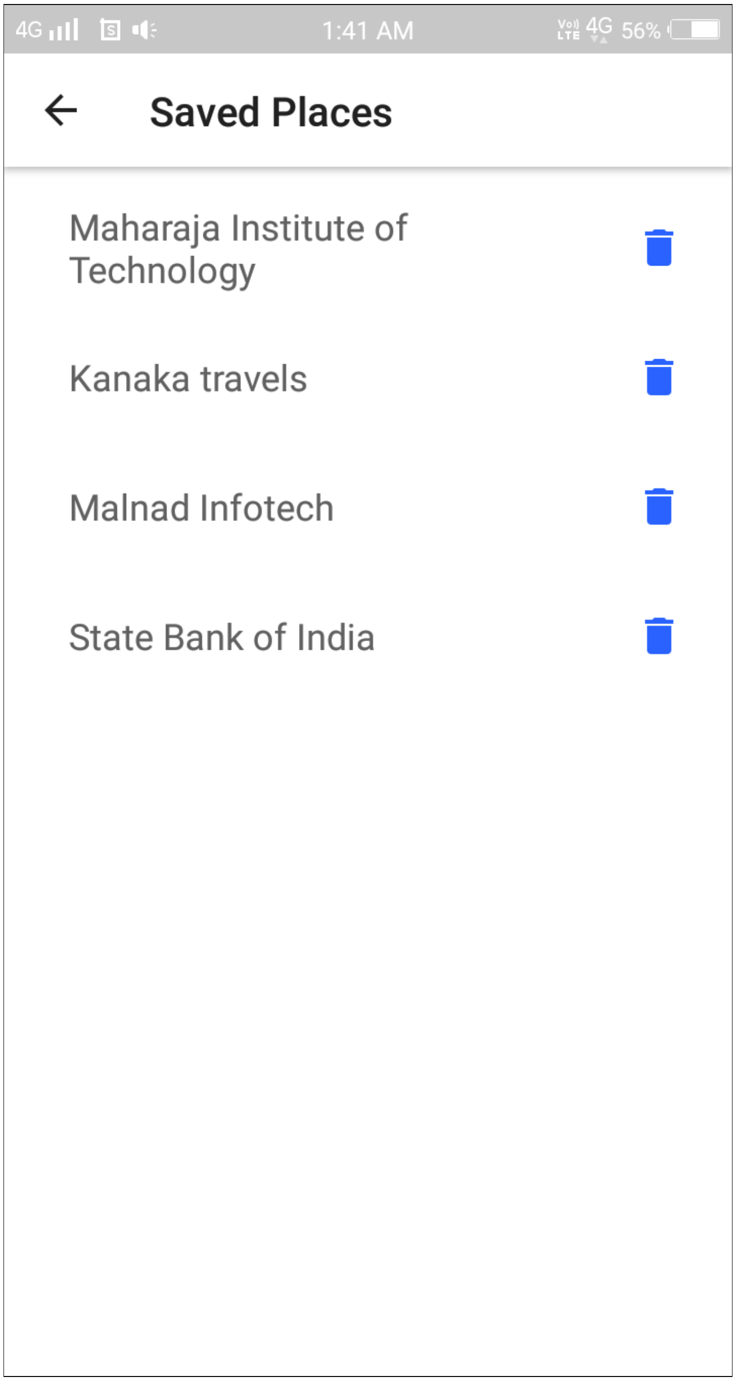
Select this location

Or choose a nearby place

Bullet Point
#842, 4th main, 6th cross, E&F block, Ram...

Kaashyapa Dharmika Kendra

Saved places screen:



Saved Places

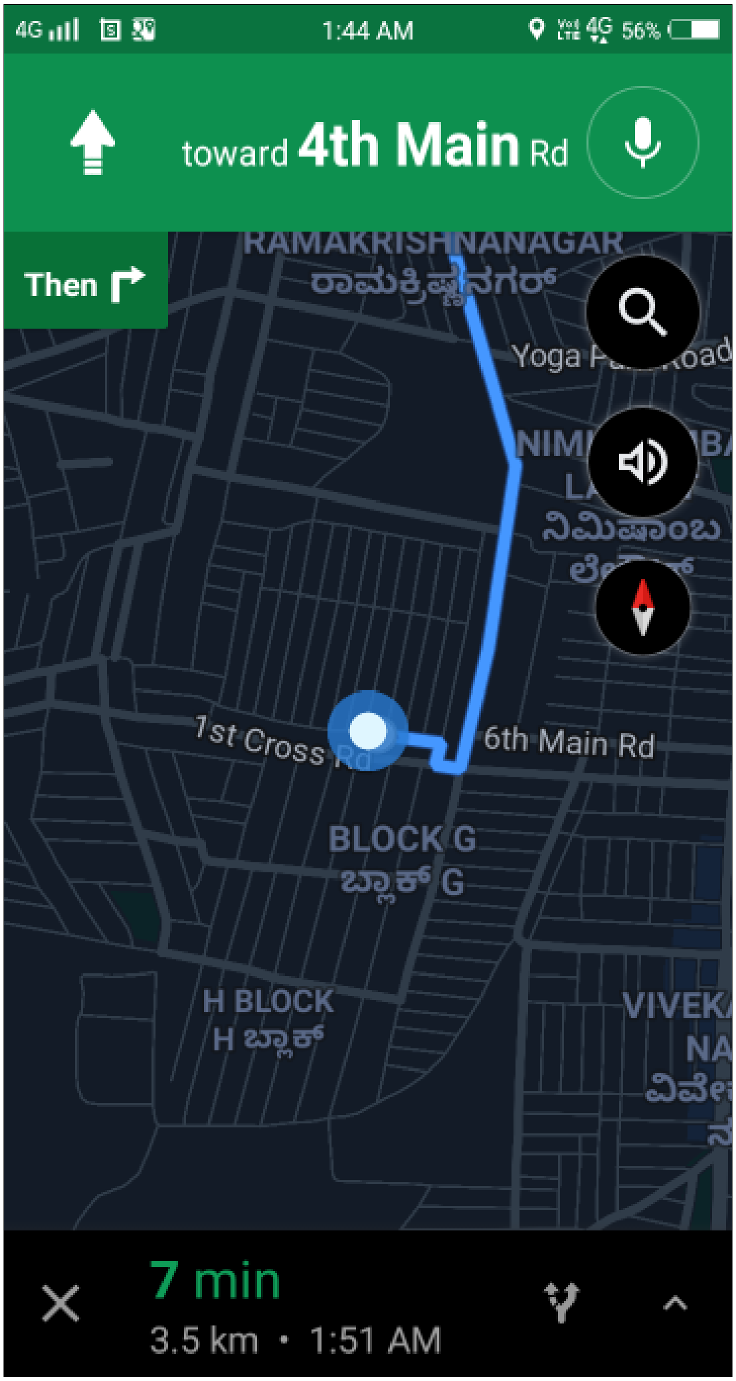
Maharaja Institute of Technology

Kanaka travels

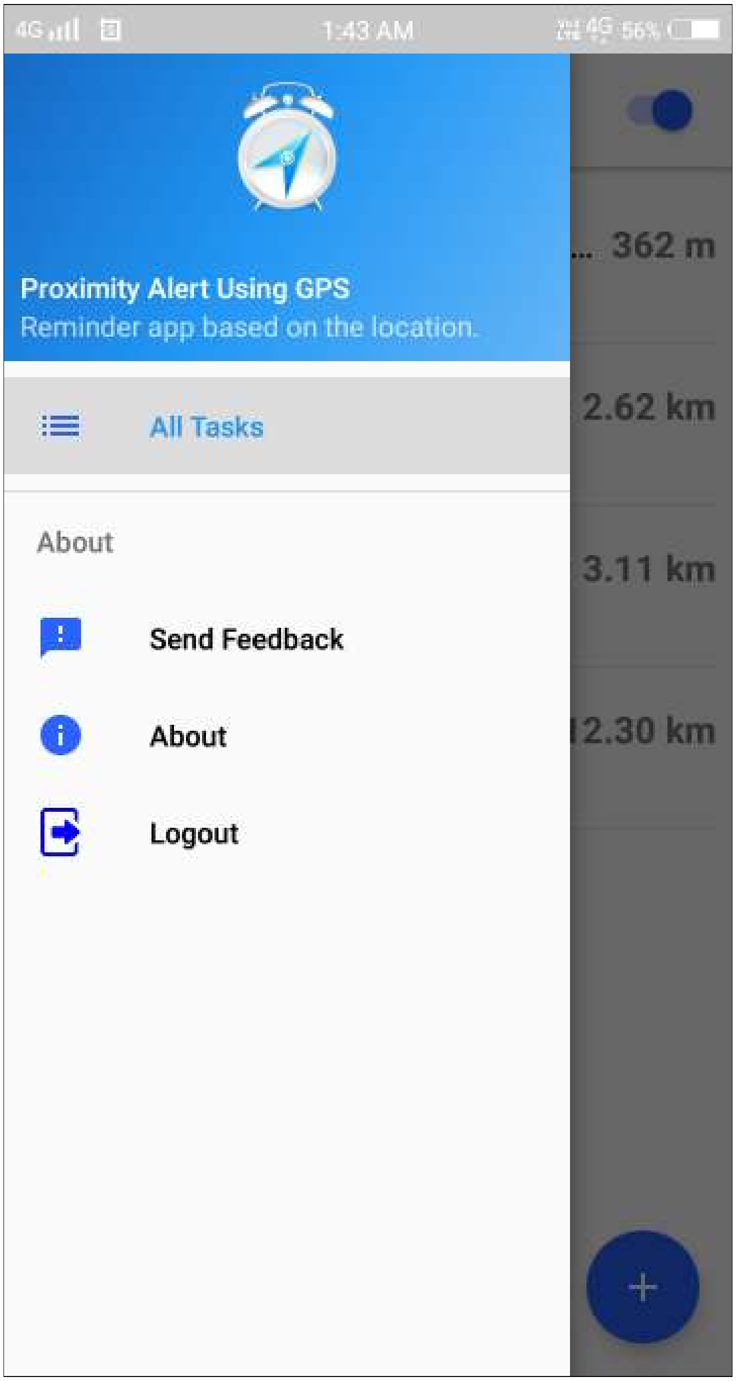
Malnad Infotech

State Bank of India

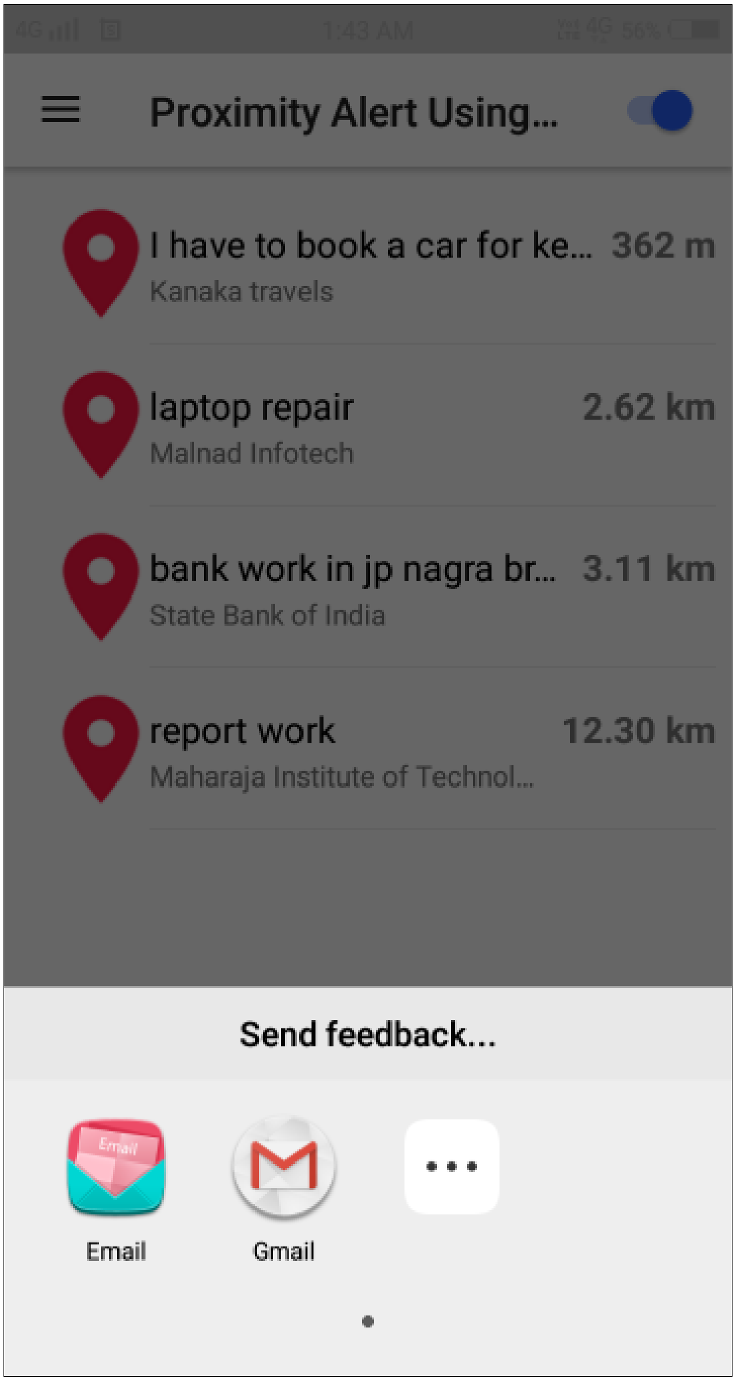
Root direction screen:



Menu screen:


1:43 AM
56%
Proximity Alert Using GPS
Reminder app based on the location.
All Tasks
About
Send Feedback
About
Logout
... 362 m
2.62 km
3.11 km
12.30 km
+

Feedback screen:

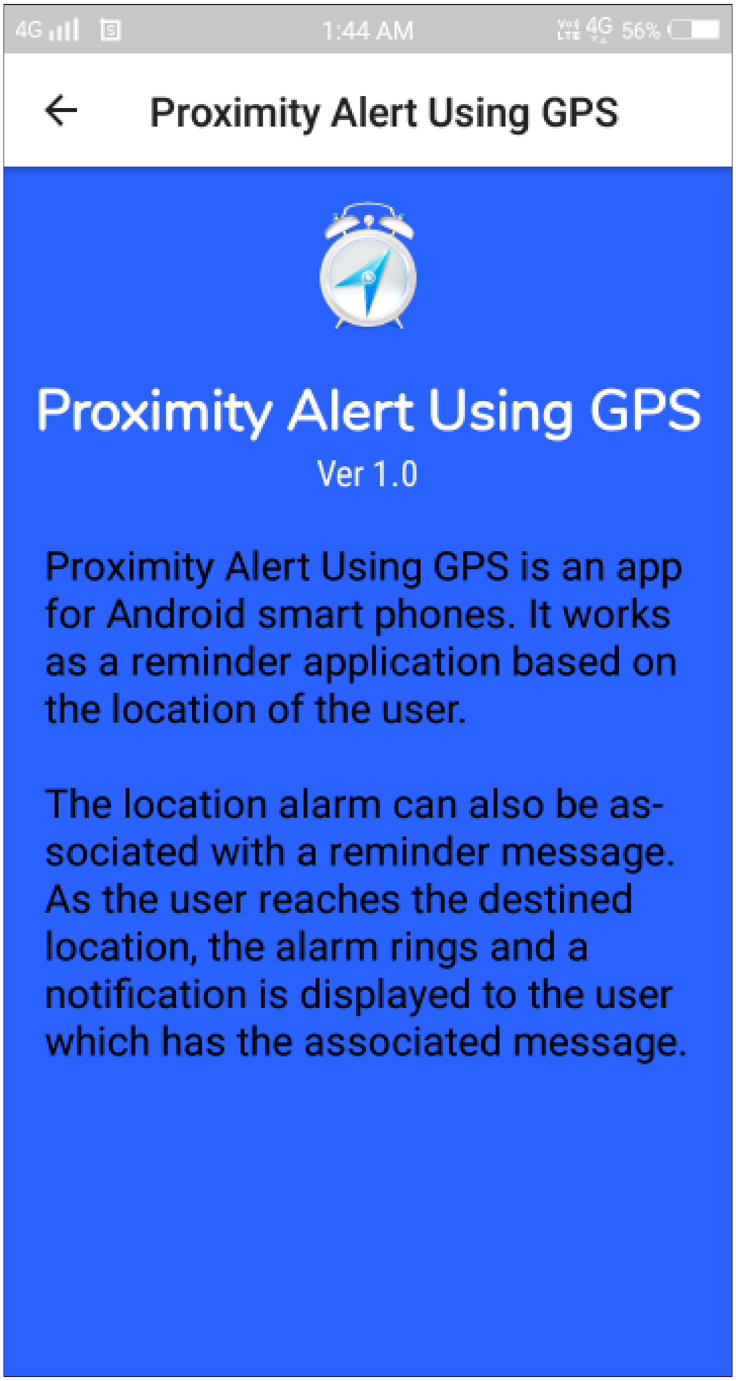


Proximity Alert Using...

I have to book a car for ke... Kanaka travels	362 m
laptop repair Malnad Infotech	2.62 km
bank work in jp nagra br... State Bank of India	3.11 km
report work Maharaja Institute of Technol...	12.30 km

Send feedback...

About screen:



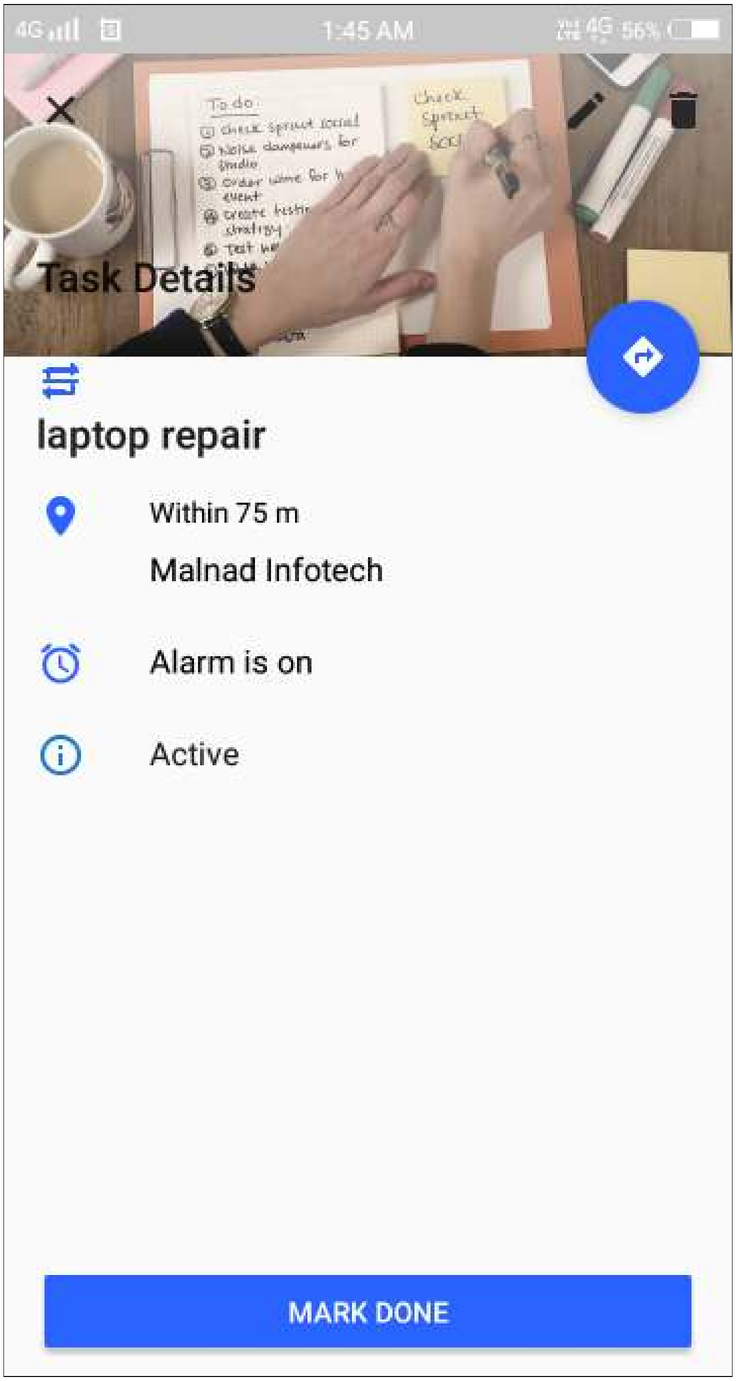
Proximity Alert Using GPS

Ver 1.0

Proximity Alert Using GPS is an app for Android smart phones. It works as a reminder application based on the location of the user.

The location alarm can also be associated with a reminder message. As the user reaches the destined location, the alarm rings and a notification is displayed to the user which has the associated message.

Task details screen:



Task Details

laptop repair

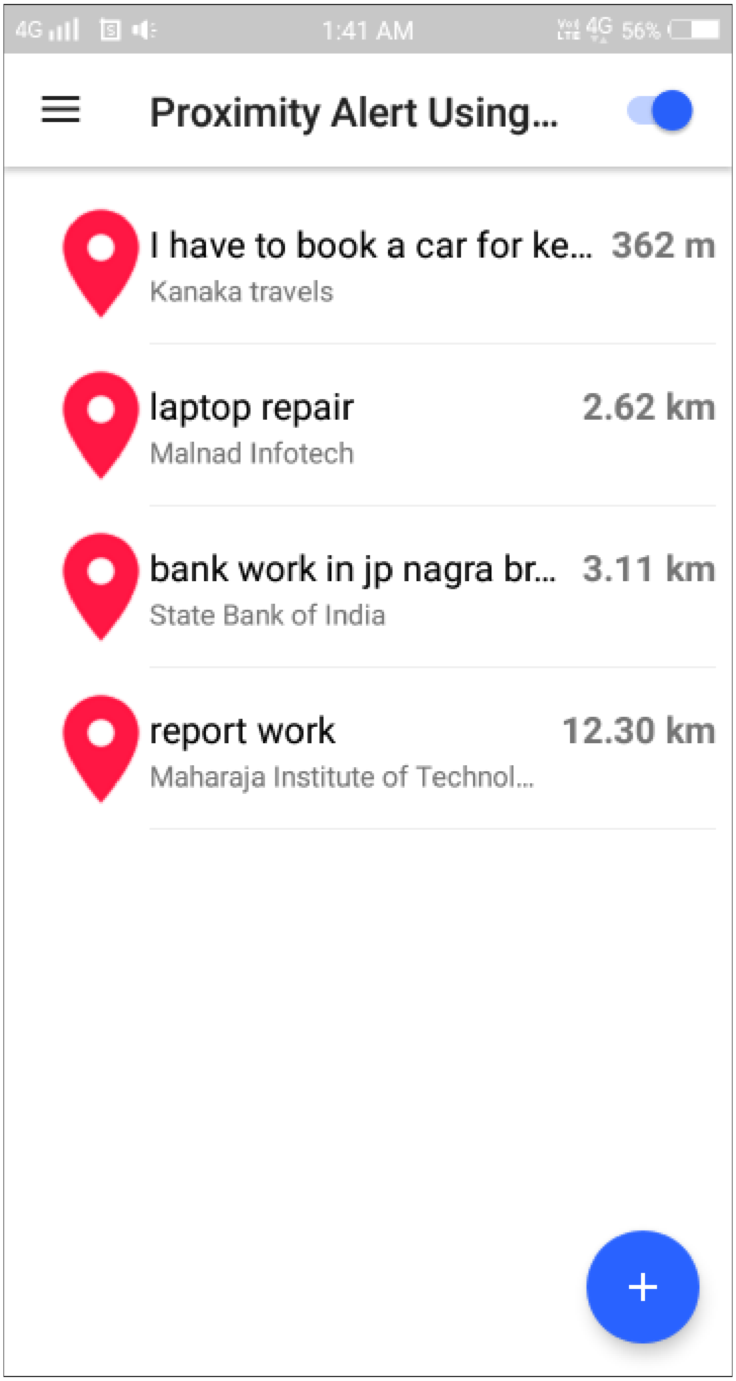
Within 75 m

Malnad Infotech

Alarm is on

Active

List of all tasks screen:



Proximity Alert Using...

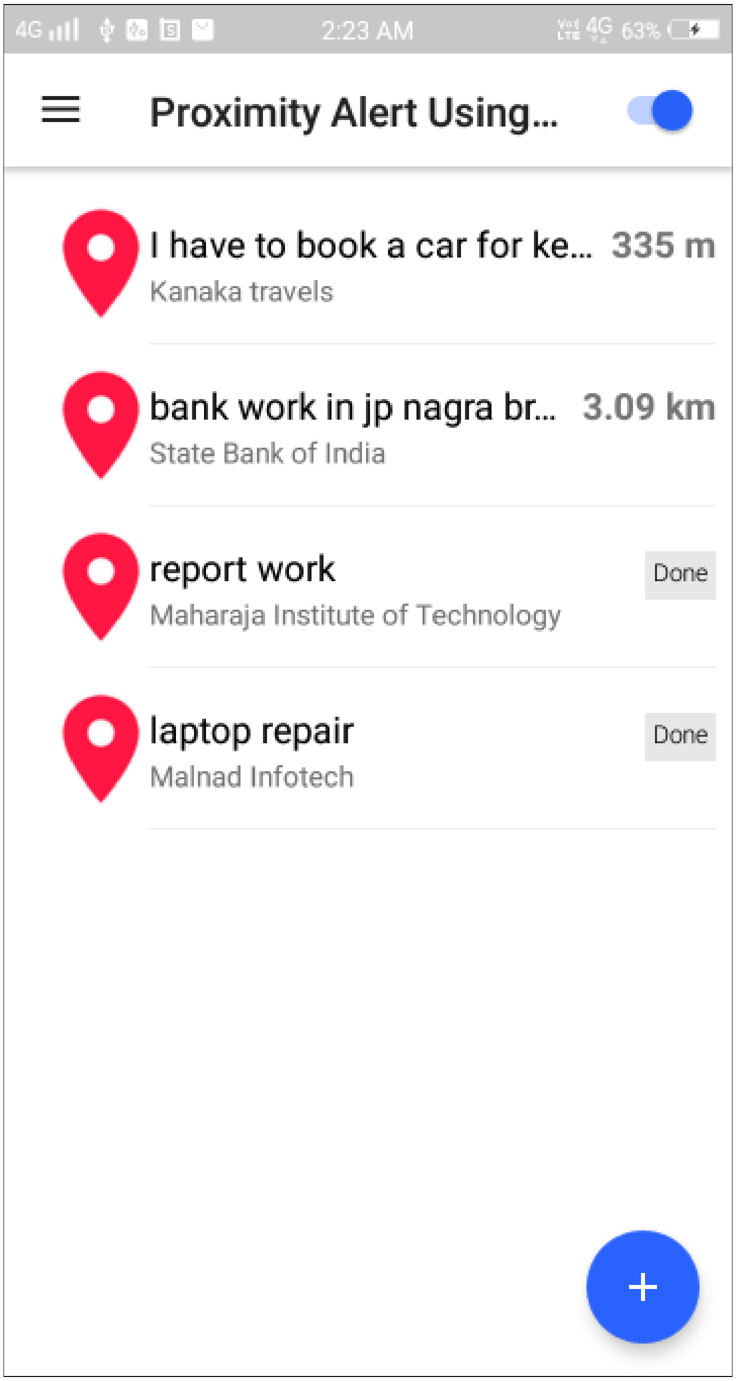
I have to book a car for ke... 362 m
Kanaka travels

laptop repair 2.62 km
Malnad Infotech

bank work in jp nagra br... 3.11 km
State Bank of India

report work 12.30 km
Maharaja Institute of Technol...

Mark as done screen:



I have to book a car for ke... 335 m
Kanaka travels

bank work in jp nagra br... 3.09 km
State Bank of India

report work
Maharaja Institute of Technology

laptop repair
Malnad Infotech

Chapter 7

SOFTWARE TESTING

Introduction

The quality item dependably upgrades the client trust in utilizing the item subsequently expanding the business financial aspects. As it were, a great quality item implies zero imperfections, which is gotten from a superior quality procedure in testing.

Testing the item implies increasing the value of it by raising the quality or dependability of the item. Raising the unwavering quality of the item implies finding and evacuating blunders. Subsequently one ought not test an item to demonstrate that it works; rather, one should begin with the supposition that the program contains blunders and after that test the program to discover whatever number of the mistakes as could be allowed.

The principle goal of testing is to discover abandons in necessities, structure, documentation, and code as ahead of schedule as could be expected under the circumstances. The test procedure ought to be to such an extent that the product item that will be conveyed to the client is imperfection less. All Tests ought to be recognizable to client necessities. Experiments must be composed for invalid and startling, just as for legitimate and expected information conditions.

Manual Testing

Manual testing joins testing an item physically, i.e., without using any motorized gadget or any substance. In this sort, the analyzer expect authority over the activity of an end-customer and tests the item to perceive any unanticipated direct or bug. There are differing stages for manual testing, for instance, unit testing, joining testing, outline work testing, and customer acknowledgment testing.

Diverse stages for manual testing:

Unit Testing

Every individual fundamental parts of an application is tried for its usefulness if there should arise an occurrence of Unit testing.

Tests that are performed amid the unit testing in the application are clarified underneath:

1) Module Interface test: In module interface test, it is checked whether the data is appropriately streaming in to the program unit (or module) and legitimately occur out of it or not.

For example The client enrollment subtleties ought to be accessible from the design to the comparing controller and from the controller it should stream to the model.

2) Boundary conditions: It is seen that much programming regularly comes up short at limit related conditions. That is the reason limit related conditions are constantly tried to make safe that the program is legitimately working at its limit condition's.

For example In the event of if...else if... else... develop every one of the conditions are checked in the app.In instance of circles, it is verified that the circles are not interminable and end once the condition turns out to be false**.**

3) Error handling paths: These are tried to audit if blunders are taken care of appropriately.

E.g.1. Approval amid login (Checking for wrong accreditations)

2. Approval of secret key amid enrollment (Password ought to hold fast to secret key approach - least 8 characters with a number and extraordinary character)

Integration Testing

When all the distinctive modules were coordinated in the application, the application was tried for the accompanying

1. Transition starting with one screen then onto the next
2. Data from the designs is getting spared appropriately in the database.

3. Data is recovered legitimately from the database and showed in the formats.

System Testing

The application was introduced on an Android portable and every one of the highlights were tried thoroughly for every conceivable information. Distinctive experiments were executed to check whether the application carried on as executed and there were no accidents and startling conduct.

Test cases:

Test Case Id	Test Case Name	Test Case Description	Test Steps				Test Status
			Steps	I/P Given	Expected O/P	Actual O/P	
01	Login	Checks for the correctness of username and password entered by the user	signin with valid user name and password	Valid username and password	Login successful	Login successful	Pass
	login	To verify that the user has entered valid username and password	signin with wrong user name and password	Invalid username and password	Login unsuccessful	Login unsuccessful	Pass
02	Registration	To verify that the user has registered by entering valid detail	Enter all valid user detail	Valid detail	Registered successfully	Registered successfully	Pass
	Registration	To verify that the user has registered by entering valid detail	If entered details are not valid or some of the details are missing	Invalid detail	Registered unsuccessfully	Registered unsuccessfully	Pass
03	Add Task	User can add task which is to be	All the required task	Valid details	Task is added successfully	Task is added successfully	Pass

		performed	details are entered				
04	Edit Profile	Editing the given details during registration	Editing user details	Valid edited profile details	Details are edited successfully	Details are edited successfully	Pass
05	Edit Task	Editing the given task during add task	User can edit already added task details	Valid edited task details	Task details are edited successfully	Task details are edited successfully	Pass
06	View Task	User can view the list of task added	User can view all the added task according to their location on Google map	View Tasks option is selected	List of added tasks is displayed	List of added tasks is displayed	Pass
07	Delete Task	User can delete the task if it is not required anymore	Select the task which is to be removed	The task to be deleted is selected	Task is deleted successfully	Task is deleted successfully	Pass
08	Finish Task	Once the user completes their task they can finish it	Once the task is completed user can finish it	Select the task which is completed	Selected task is marked as finished successfully	Selected task is marked as finished successfully	Pass
09	Logout Menu	In case the user selects logout menu option, they should be redirected back to user selection screen	Select logout menu option	Logout option is selected from the options menu	User must be migrated to user selection screen	User is taken to user selection screen	Pass

Chapter 8

CONCLUSION

The general motivation behind this application is to remind the assignments which we are having in our day by day life dependent on the errand area. In light of the saved zone on the phone, ready will ring normally and show extra part message when the customer accomplishes the goal zone.In the current framework there are numerous applications for reminding the errands to be finished that depend on date and time. Be that as it may, in our application we have presented another idea for reminding the day by day undertakings by utilizing the GPS area framework for putting alert dependent on the area.

Chapter 9

FUTURE ENHANCEMENTS

The future utilization of this framework is to incorporate voice message. Voice message upgrades the ease of use of the application. Right now, framework ringtone is utilized as the default ringtone in the application. In any case, decision of ring tones could be given from the sound exhibition, since it has volume control and vibrates mode control settings. Notwithstanding area, time can be added as another relevant component to the area updates. This will permit clients determine a period and date-book date when area isn't adequate to characterize the setting in which the update ought to be gotten, making it conceivable to setup repeating updates. Furthermore, an update nap highlight which permits briefly stifling update ready notices would be perfect. Long range informal communication highlights can help influence the area based administrations, including an entirely different component of potential outcomes. For instance, sharing of bookmarked areas between Face book companions would make it simple for individuals to trade locations of prevalent eateries, vacation destinations, hang-out goals, and so on.

APPENDEX A

BIBLIOGRAPHY

- ✓ https://developer.android.com
- ✓ https://developer.android.com/reference/android/telephony/SmsManager.html
- ✓ https://materialpalette.com/
- ✓ https://developer.android.com/guide/topics/ui/declaring-layout
- ✓ https://developer.android.com/guide/topics/ui/menus
- ✓ https://developer.android.com/studio/index.html
- ✓ https://en.wikipedia.org/wiki/Android_Studio
- ✓ https://developer.android.com/reference/andriod/database/sqlite/SQLiteDatabase.html
- ✓ https://developer.android.com/guide/topics/location/
- ✓ https://www.tutorialspoint.com/android/android_location_based_services.htm
- ✓ https://blog.teamtreehouse.com/beginners-guide-location-android