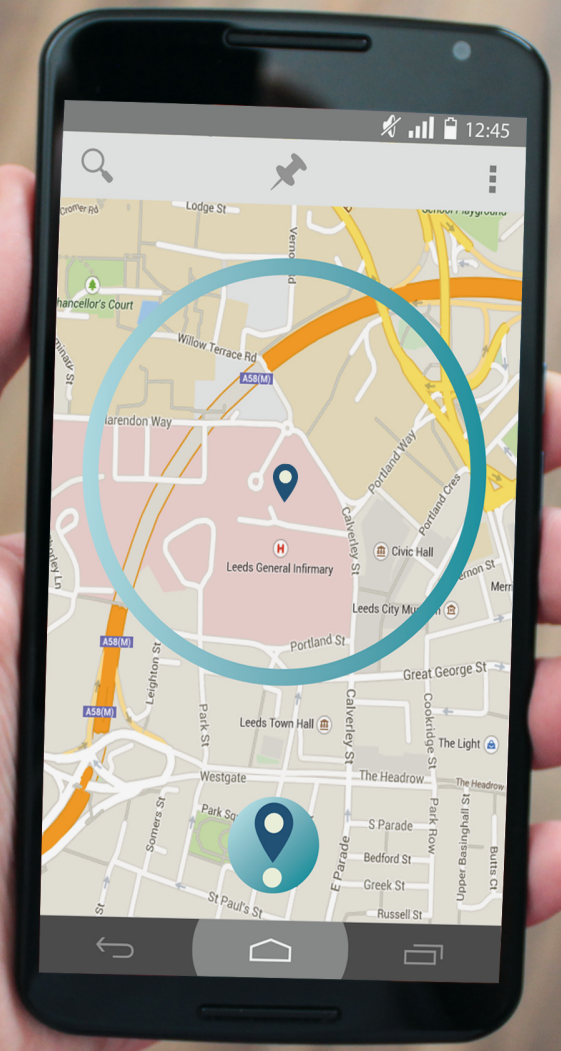
Localarm

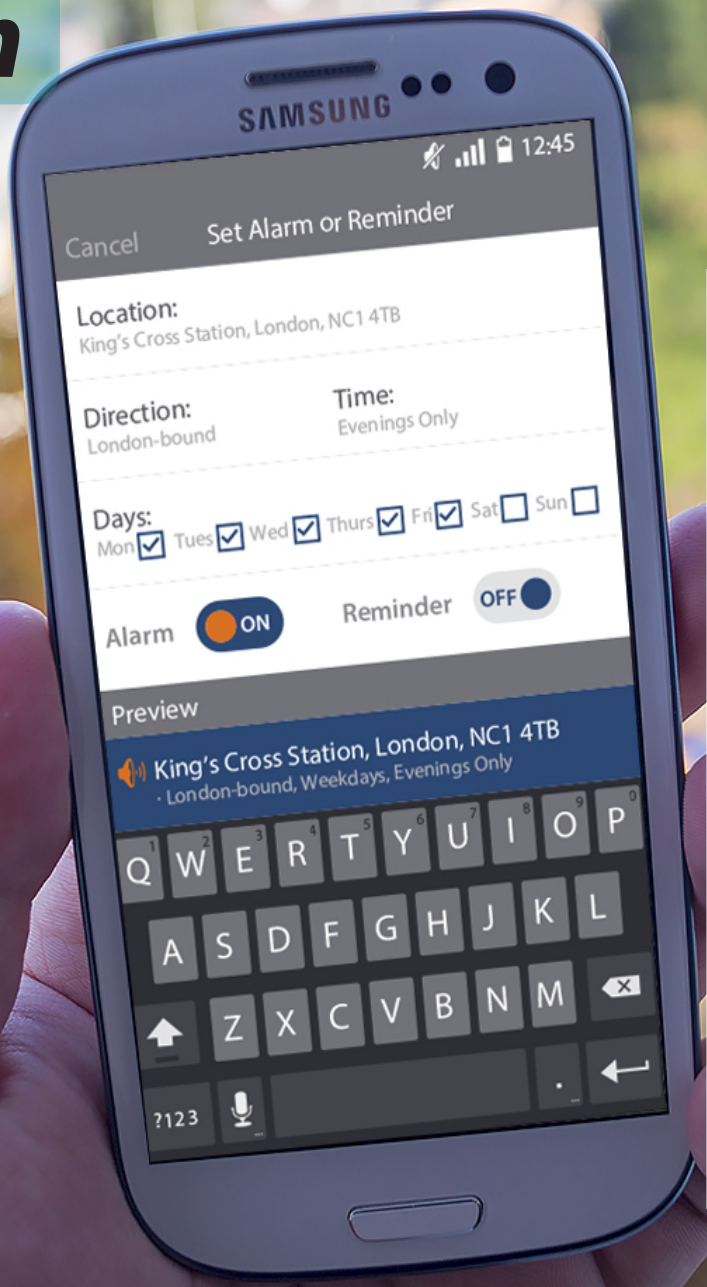
"Location-based alarms and reminders"

Patrick Manderson

Contents



Introduction



Never miss your stop on the train or bus again!

Localarm is a location-based Android application that allows the user to set custom alarms and reminders, based on where the user is located their day to day environments.
Localarm allows the user to choose between an alarm which can ring and vibrate to wake you just before you arrive home on a sleepy train journey, or a reminder to let you know to renew a book when you walk past the library.

Specific locations can be looked up through a standard search function, or if you're unsure of the exact address - a radius can be defined around a vague area, by the user.

Your location-based alarms and reminders can also be customised to only be enabled on certain days, directions, and time - allowing full control over when you are alerted or reminded.

Functionality & Technologies

Localarm uses GPS to locate the user's current position. This allows easier browsing of nearby locations - especially useful if the user is unsure of a specific, desired location.

The app uses the most recent version of Google's Map API (v2), which provides Google's familiar appearance and gestures - as well as the Maps data which founds the basis of the entire application. This combined with enabling the app to have a touch interface allows intuitive gestures such as pinch-to-zoom, ideal for finding a nearby location to set an alarm around.

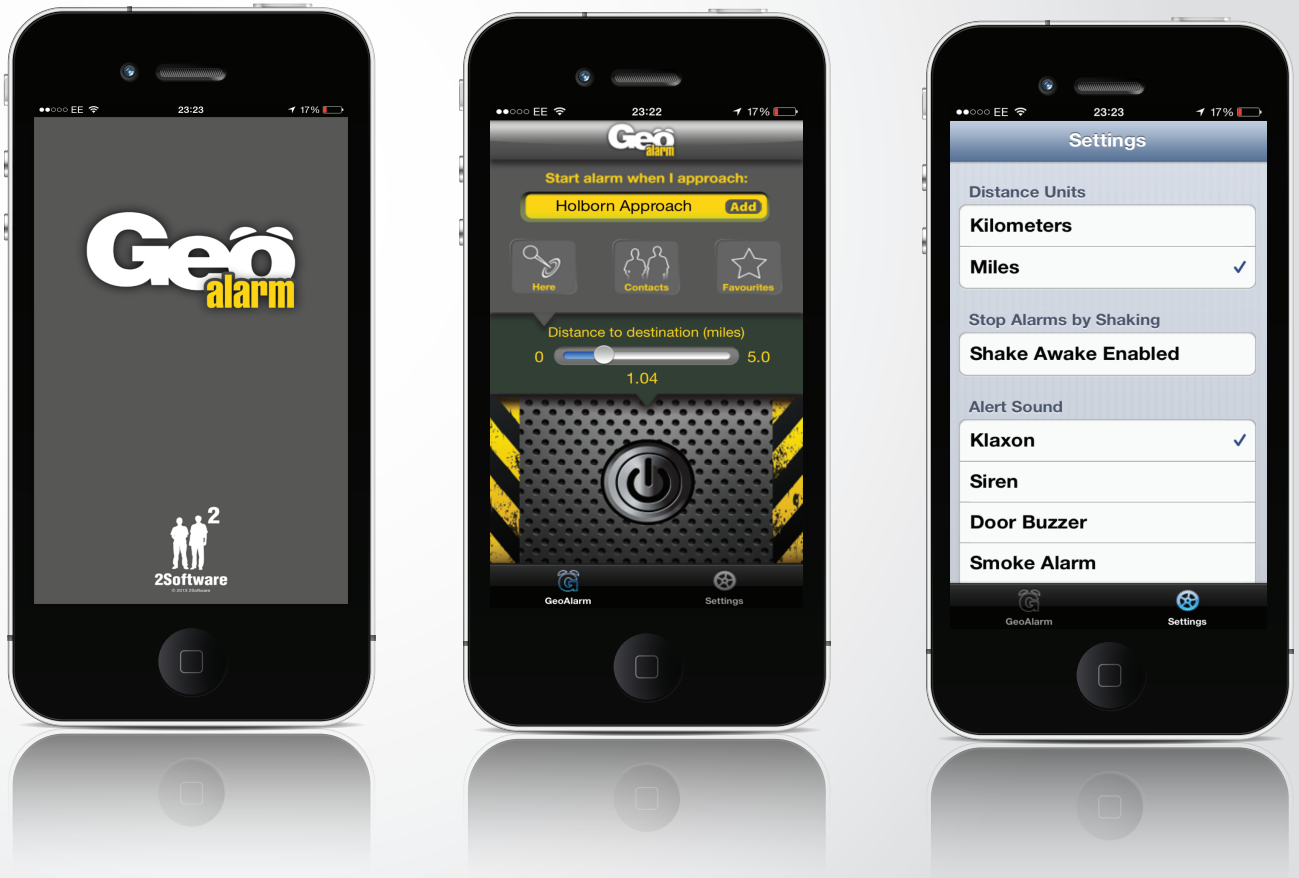
The application also required the user's mobile device to have access to audio output, and device vibration. These are required to create a noticeable alarm or reminder, both of which can be turned on or off through the app's settings. Similarly, Push Notifcations should ideally have permission and be enabled, allowing a user's device to alert them when they are in proximity of a designated location.

The prototype and concepts for Localarm also include a voice command search function. Currently, Google's "Web Speech" API does not support Android Devices (only Chrome browser), however this would be highly suitable addition to the app in the future.

Originality - Geo Alarm

Geo Alarm is a free app available on the iOS App Store which provides alarms based on a specific location and radius entered by the user. The App is very basic, with this being the only feature - and customisation including only what unit distance is measured in, and a choice of alert sounds.

Geo Alarm has not been updated by the developer in over two years, and has been designed for iOS6. The skeuomorphic design looks a little dated on newer devices, and functionality on the iPhone 5/6 doesn't allow the search to be used fully. It also has to be "zoomed in" to fit the screens of larger resolution devices.

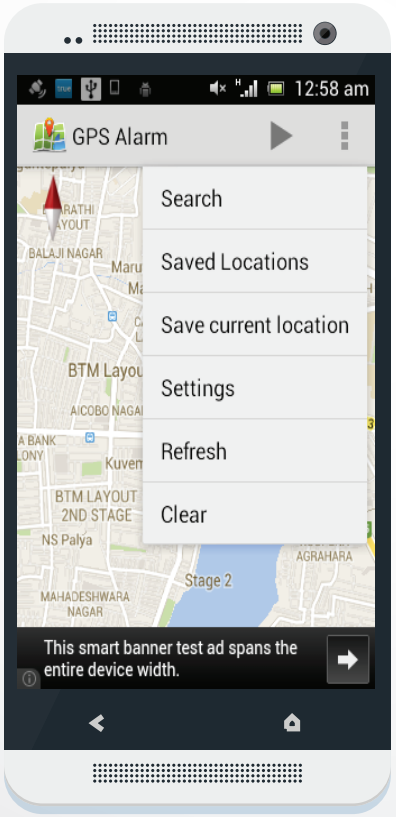


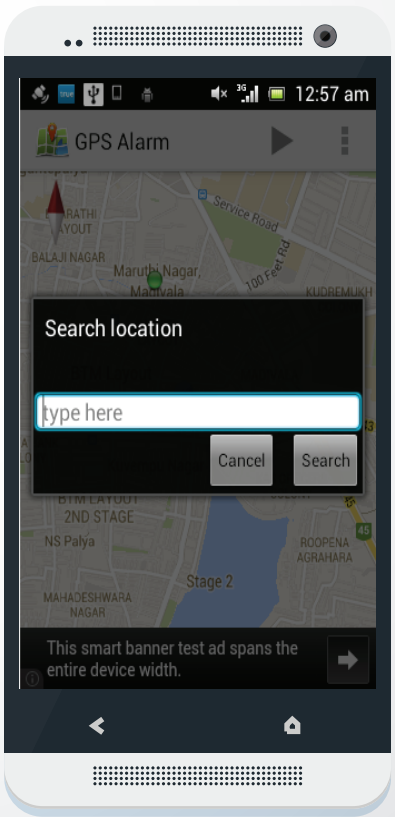
Localarm differs from Geo Alarm in how a user can search for their desired location, rather than depending solely on a typed search function. It is also much more customisable, with cleaner, contemporary design.

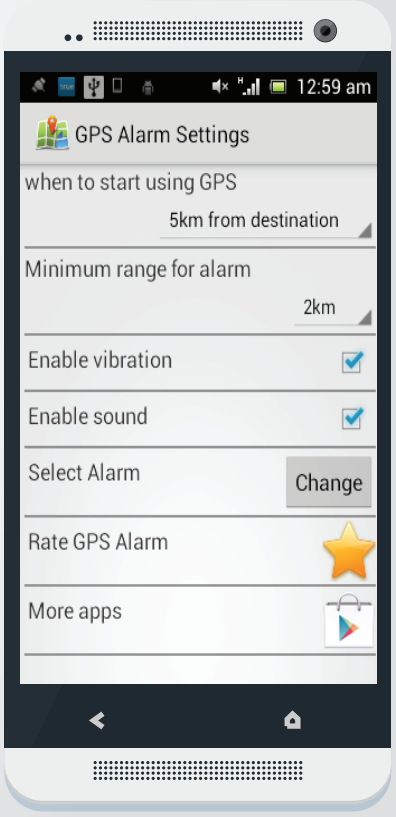
Originality - GPS Alarm

GPS Alarm is also available for free, this time on the Google Play store. Updated very recently in early January 2015, GPS alarm offers users the opportunity to both search and "touch the map" to designate an area for their alarm. The app offers much more customisation than Geo Alarm, including "When to start using GPS" and being able to enable and disable vibration/sound.

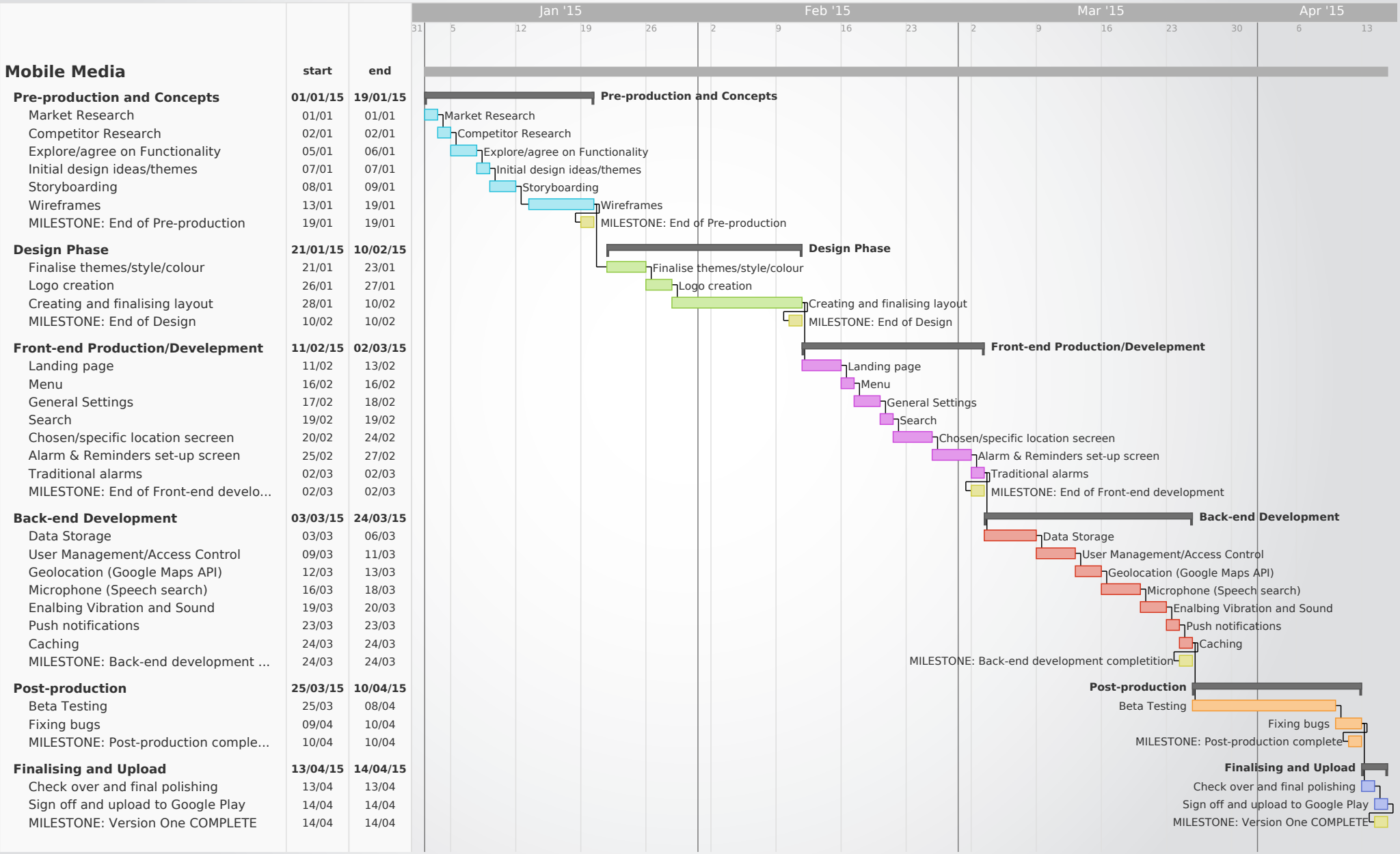
GPS Alarm offers an in-app purchase to hide advertisements, and offer "Saved locations." This is much better developed that Geo Alarm, however there are still issues concerning the app sounding the alarm sporadically once you have reached your destination. Localarm offers many of GPS Alarm's features, as well as the option of reminders - something asked for in Android user's reviews of GPS Alarm.





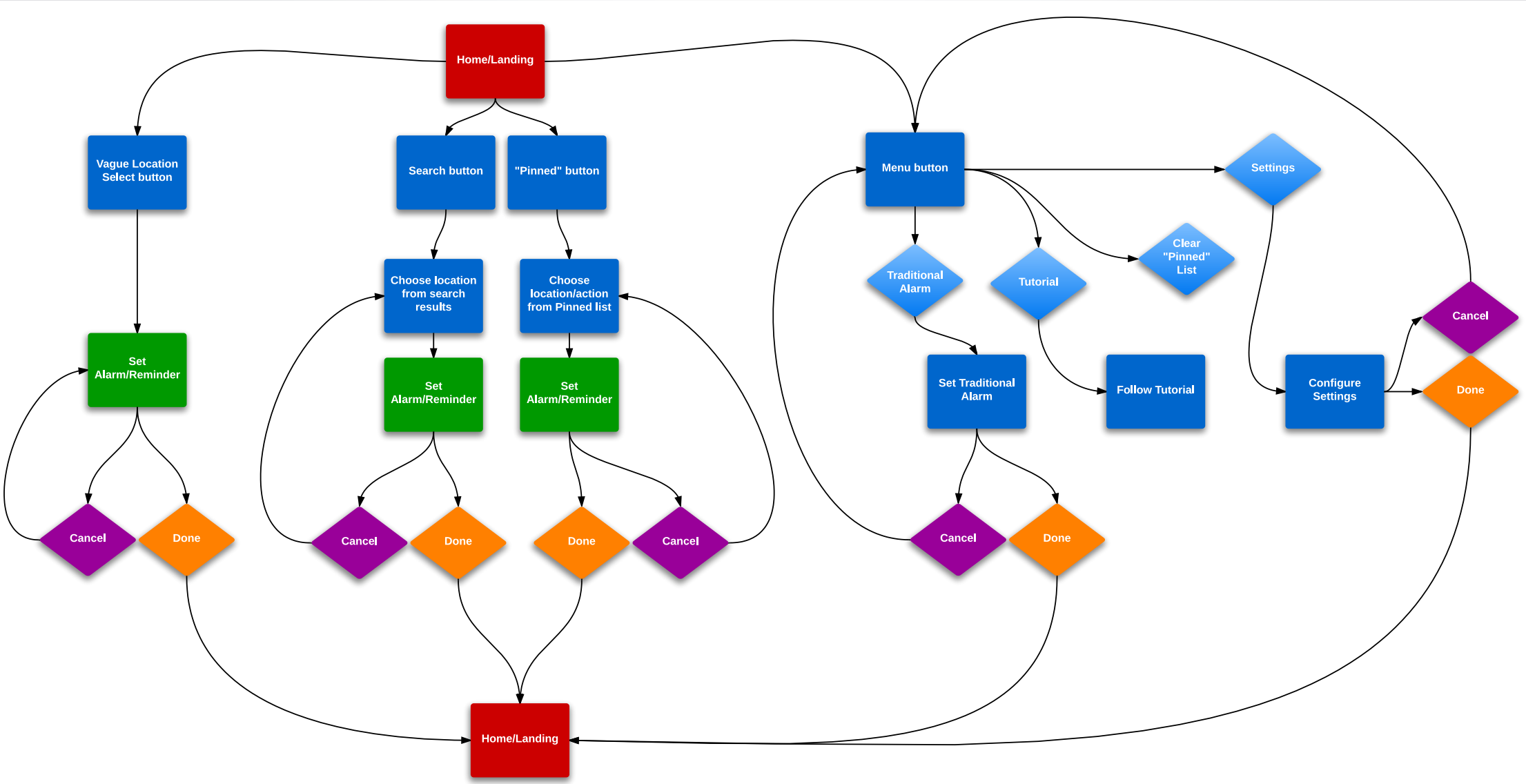


Time Frame

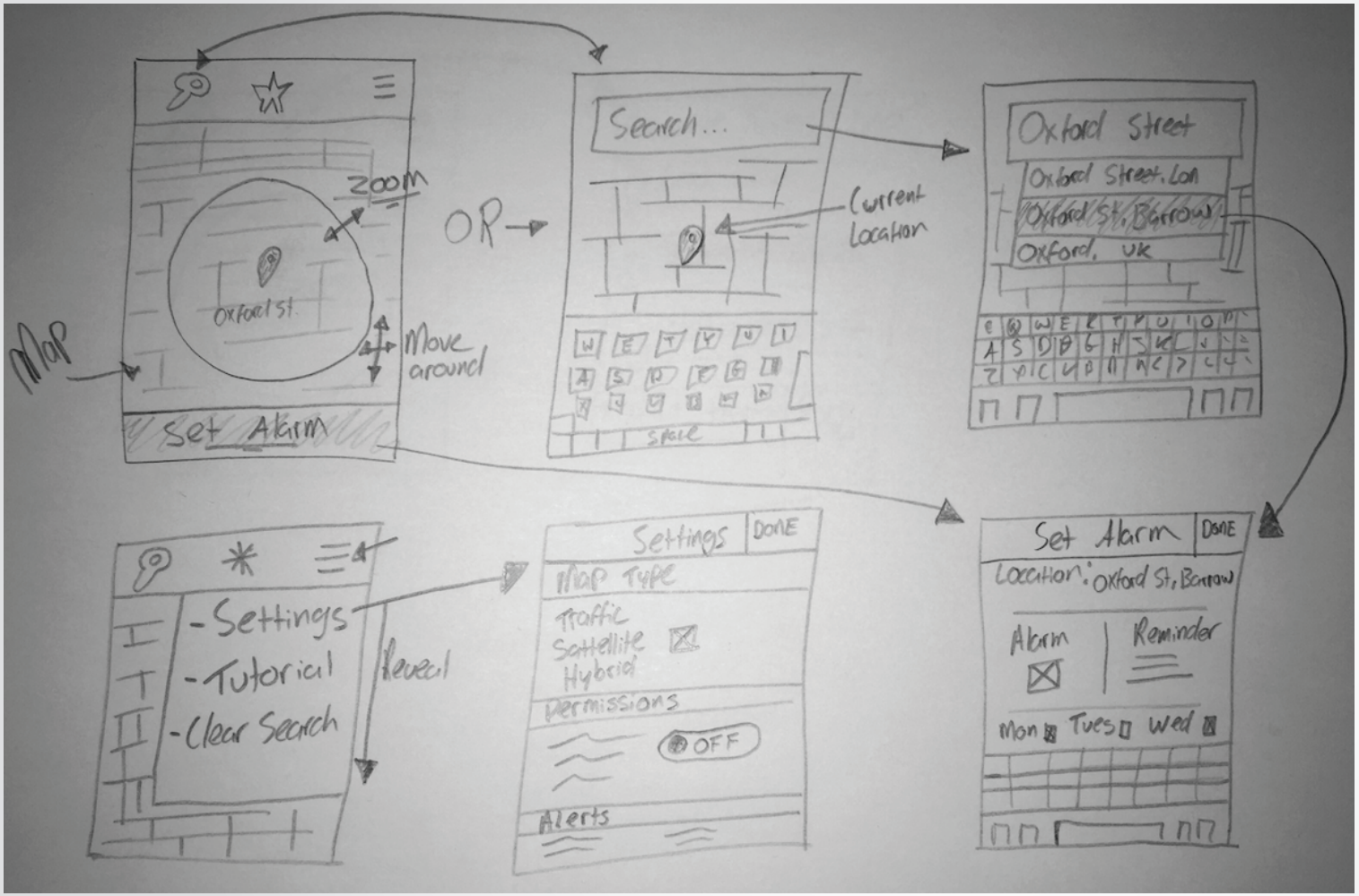


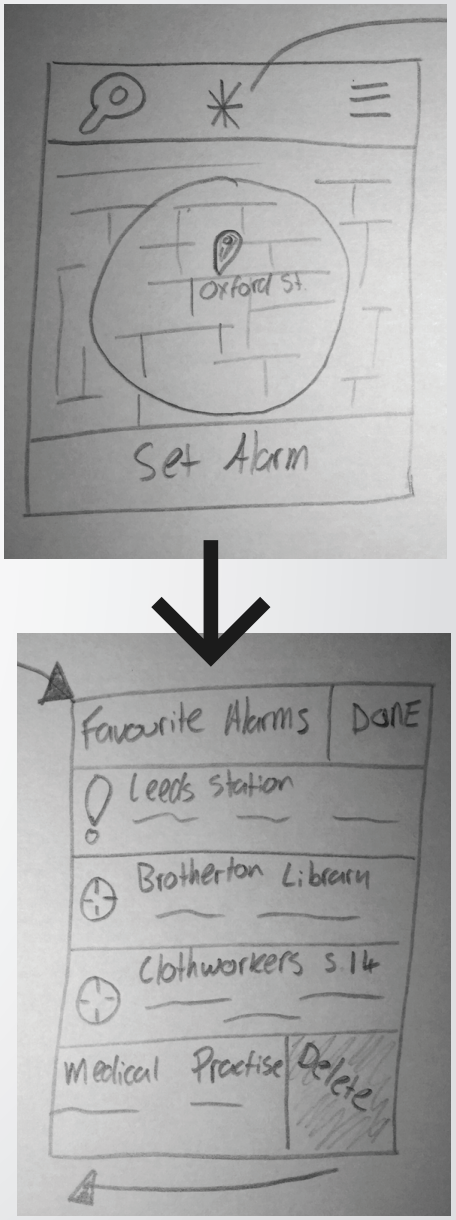
Mobile Media	start	end
Pre-production and Concepts	**01/01/15**	**19/01/15**
Market Research	01/01	01/01
Competitor Research	02/01	02/01
Explore/agree on Functionality	05/01	06/01
Initial design ideas/themes	07/01	07/01
Storyboarding	08/01	09/01
Wireframes	13/01	19/01
MILESTONE: End of Pre-production	19/01	19/01
Design Phase	**21/01/15**	**10/02/15**
Finalise themes/style/colour	21/01	23/01
Logo creation	26/01	27/01
Creating and finalising layout	28/01	10/02
MILESTONE: End of Design	10/02	10/02
Front-end Production/Develepment	**11/02/15**	**02/03/15**
Landing page	11/02	13/02
Menu	16/02	16/02
General Settings	17/02	18/02
Search	19/02	19/02
Chosen/specific location secreen	20/02	24/02
Alarm & Reminders set-up screen	25/02	27/02
Traditional alarms	02/03	02/03
MILESTONE: End of Front-end develo...	02/03	02/03
Back-end Development	**03/03/15**	**24/03/15**
Data Storage	03/03	06/03
User Management/Access Control	09/03	11/03
Geolocation (Google Maps API)	12/03	13/03
Microphone (Speech search)	16/03	18/03
Enalbing Vibration and Sound	19/03	20/03
Push notifications	23/03	23/03
Caching	24/03	24/03
MILESTONE: Back-end development ...	24/03	24/03
Post-production	**25/03/15**	**10/04/15**
Beta Testing	25/03	08/04
Fixing bugs	09/04	10/04
MILESTONE: Post-production comple...	10/04	10/04
Finalising and Upload	**13/04/15**	**14/04/15**
Check over and final polishing	13/04	13/04
Sign off and upload to Google Play	14/04	14/04
MILESTONE: Version One COMPLETE	14/04	14/04

Structure

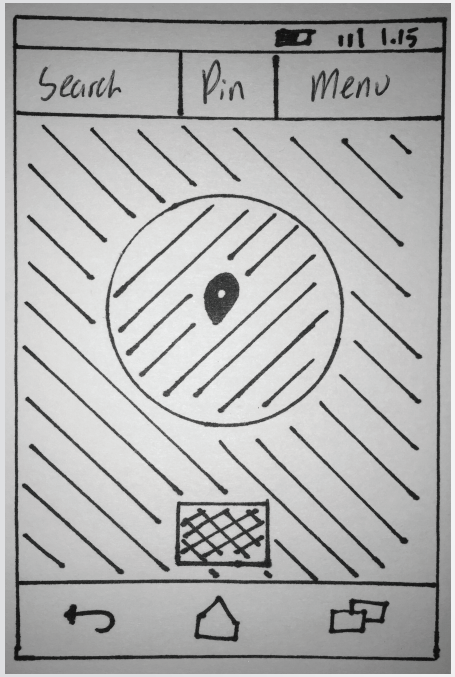

Home/Landing
Vague Location Select button
Search button
"Pinned" button
Menu button
Settings
Clear "Pinned" List
Traditional Alarm
Tutorial
Choose location from search results
Choose location/action from Pinned list
Set Alarm/Reminder
Set Alarm/Reminder
Set Alarm/Reminder
Set Traditional Alarm
Follow Tutorial
Configure Settings
Cancel
Done
Cancel
Done
Cancel
Done
Done
Cancel
Cancel
Done
Cancel
Done
Home/Landing

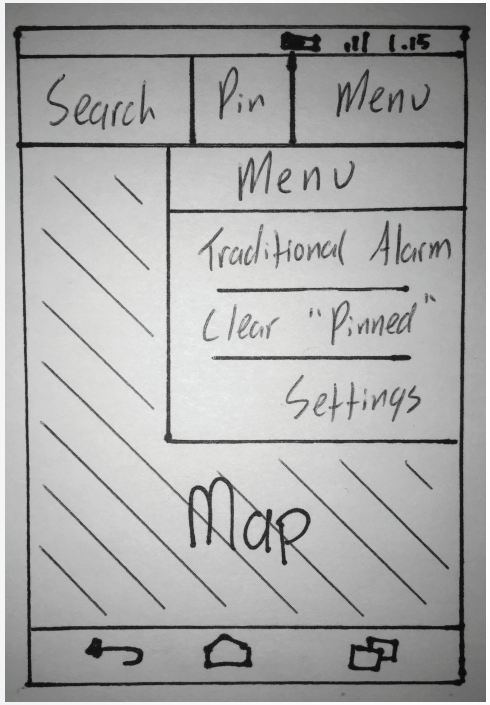
Storyboards

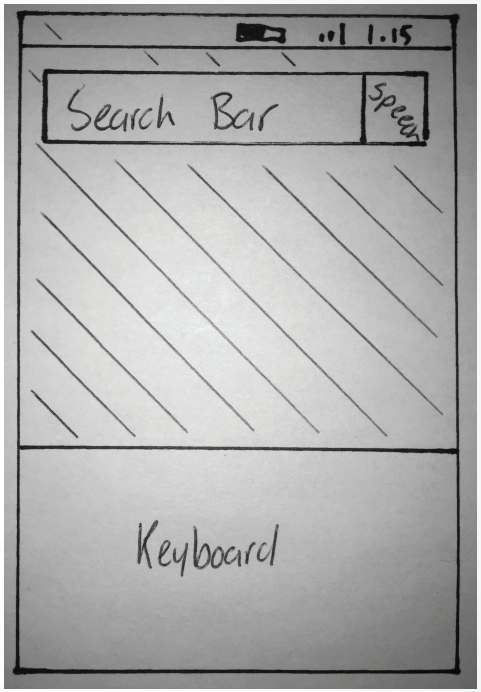


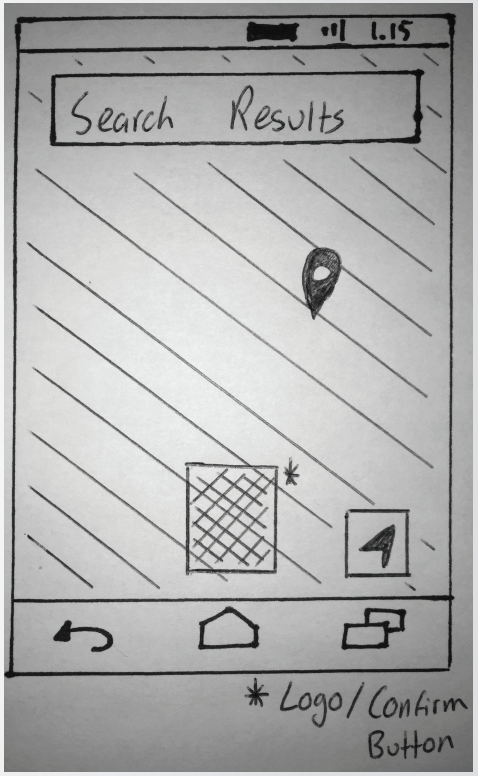


Wireframes

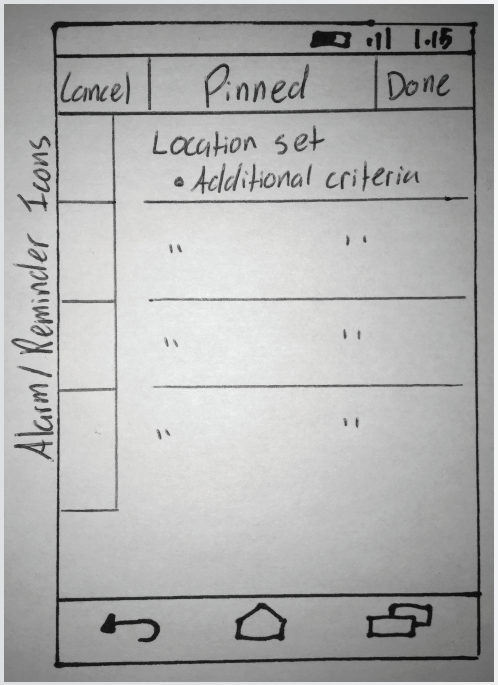

1.15
Search
Pin
Menu

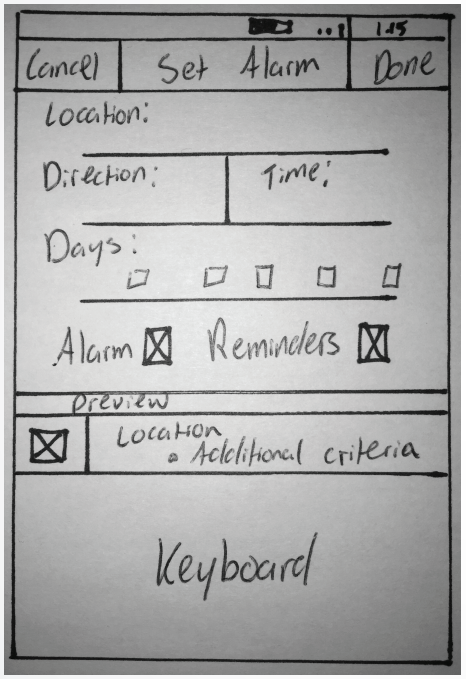

1.15
Search
Pin
Menu
Menu
Traditional Alarm
Clear "Pinned"
Settings
Map

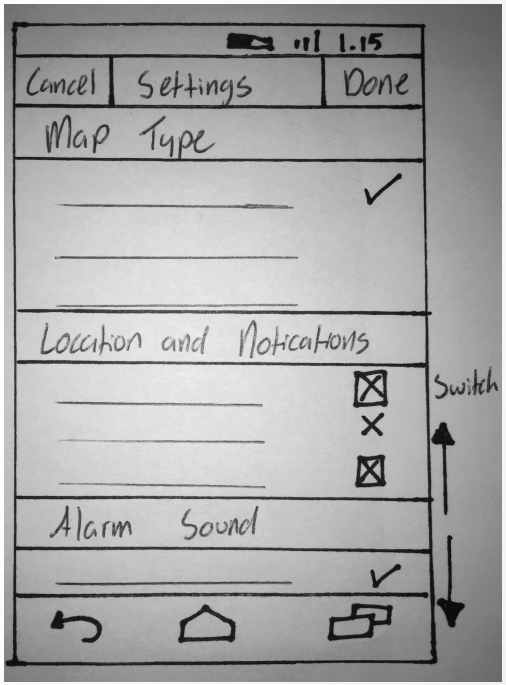

1.15
Search Bar
Keyboard

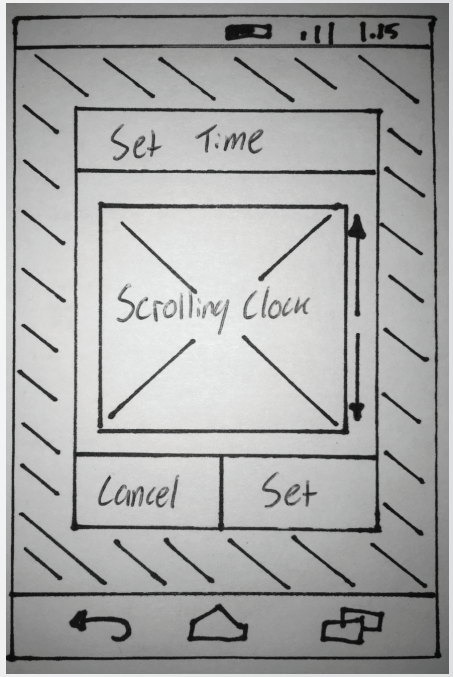

1.15
Search Results
* Logo / Confirm Button

Wireframes, cont.









Design Overview

In the following pages, you will get a run-through of the initial pages of Localarm, giving you an idea of what the app will offer - as well as a feel for the overall design and themes.

Localarm's design is an attempt to join the current trend of "flat" user interfaces. Most publicly noted through Apple's release of iOS8, this "flat" style sees the return of gradients, the loss of shadows, and the use of simple block colours. The theme purposely strays away from skeuomorphism, found in many competitor's applications.

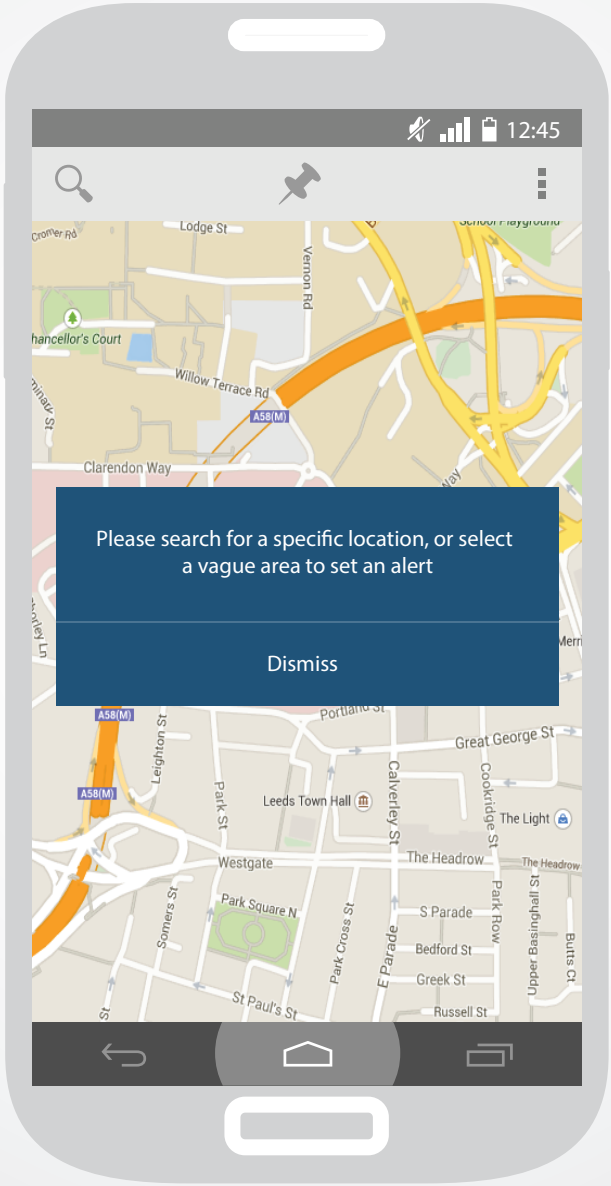
Localarm's logo is formed from the commonly seen "location marker." Duplication of the internal circle creates the appearance of an exclamation mark - symbolising an alarm or alert.

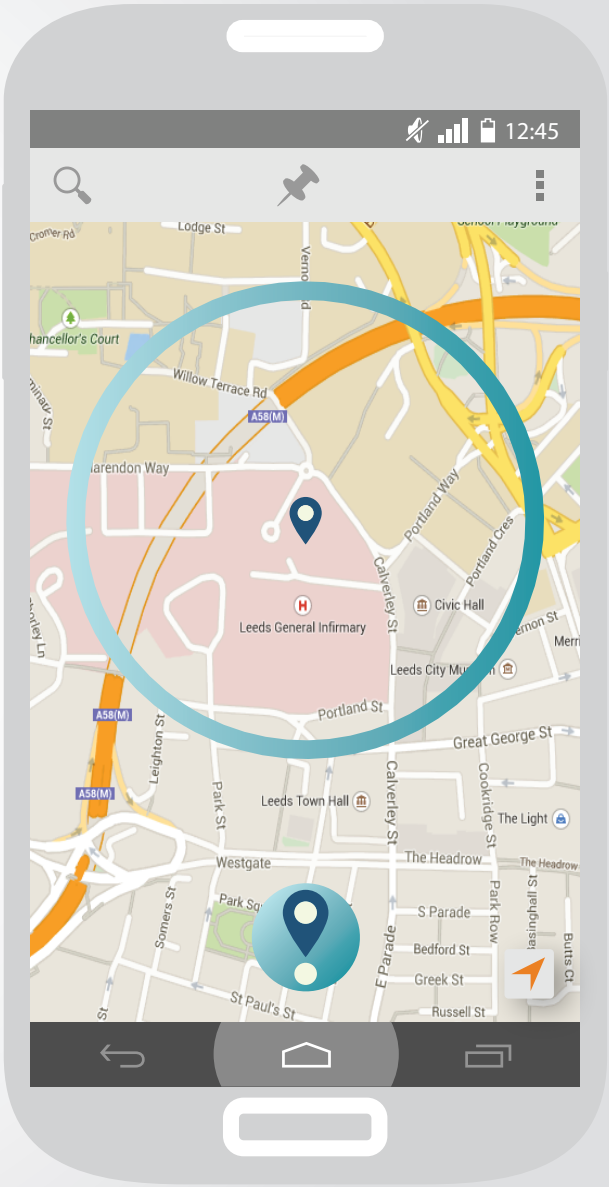
Designs - Home Page

The first few times that the user opens Localarm, they will be prompted to search for a specific location before attempting to set an alert.

The landing page for the app offers the user two main options to choose the location they wish to be alerted for.

The first of which is to choose a radius within the blue circle by moving the map and pinch-ing-to-zoom. Once a rough radius is within the circle, touching the Localarm logo button will take the user through to the alarm and reminder set-up page.



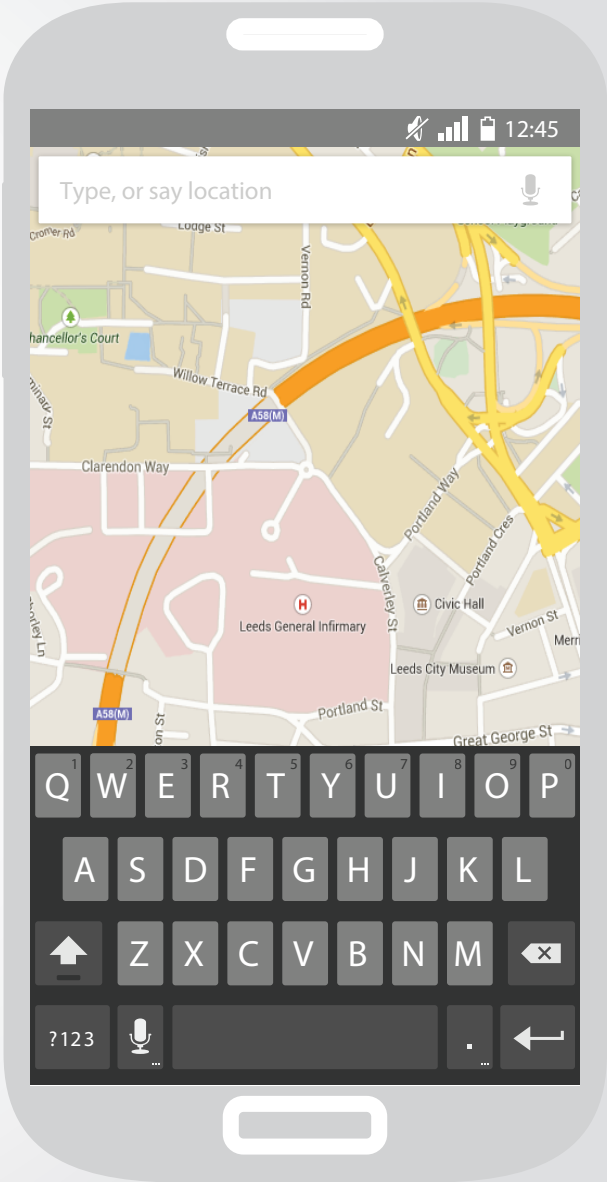


Designs - Search

The second option to choose a location is to touch the search button in the top left corner of the home page.

Once pressed, a transition will reveal a search bar, and the Android keyboard will be brought up. Using the Google Maps API, suggestions for addresses will appear once the user begins to type.

When the keyboard leaves the screen, the logo button re-appears, and the user is able to proceed onto setting preferences and double-checking they have entered the correct location.

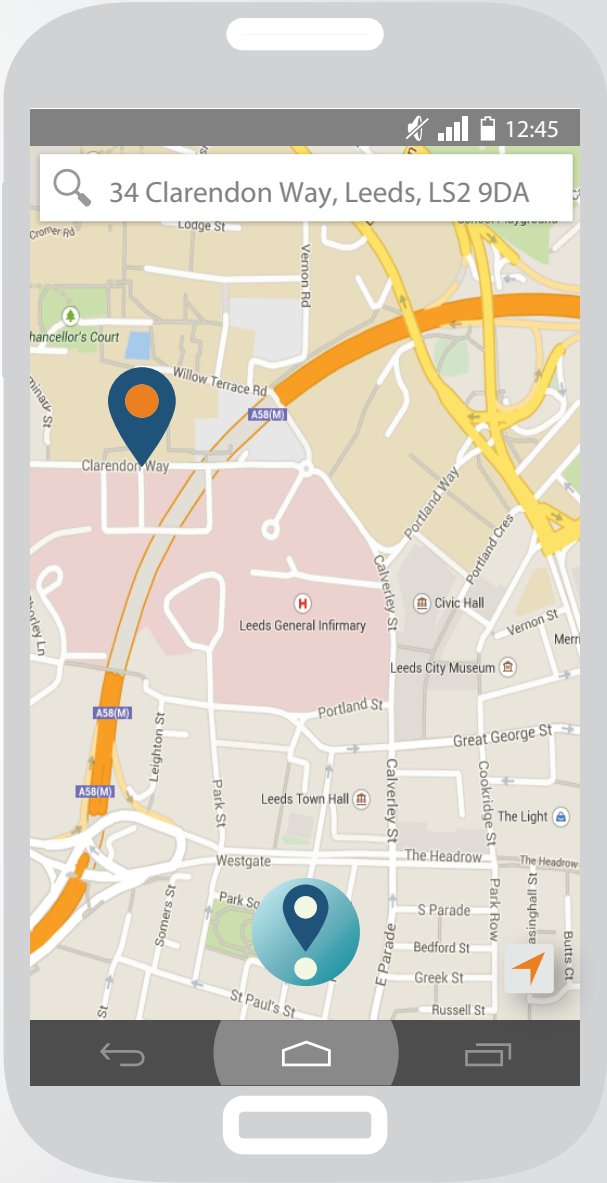


Designs - Specific Location

Once a location is selected, the user will be presented with a Localarm marker, as seen to the right.

This gives the user the opportunity to make slight adjustments to the location, as well as making sure that the chosen location is correct. Once correct, clicking the logo button will take the user to set up their alarm or reminder.

The app's colour theme is made up of three shades of blue, an off-white, and a distinct orange. Blues have been used throughout logos, and to form text backgrounds/check-boxes. Orange has been used throughout the app in small doses - generally to draw attention to important features that may otherwise go unseen, or dynamic switches to show the user's selection. The "My Location" marker in the bottom right corner, and orange accent in the Localarm marker are examples of this.

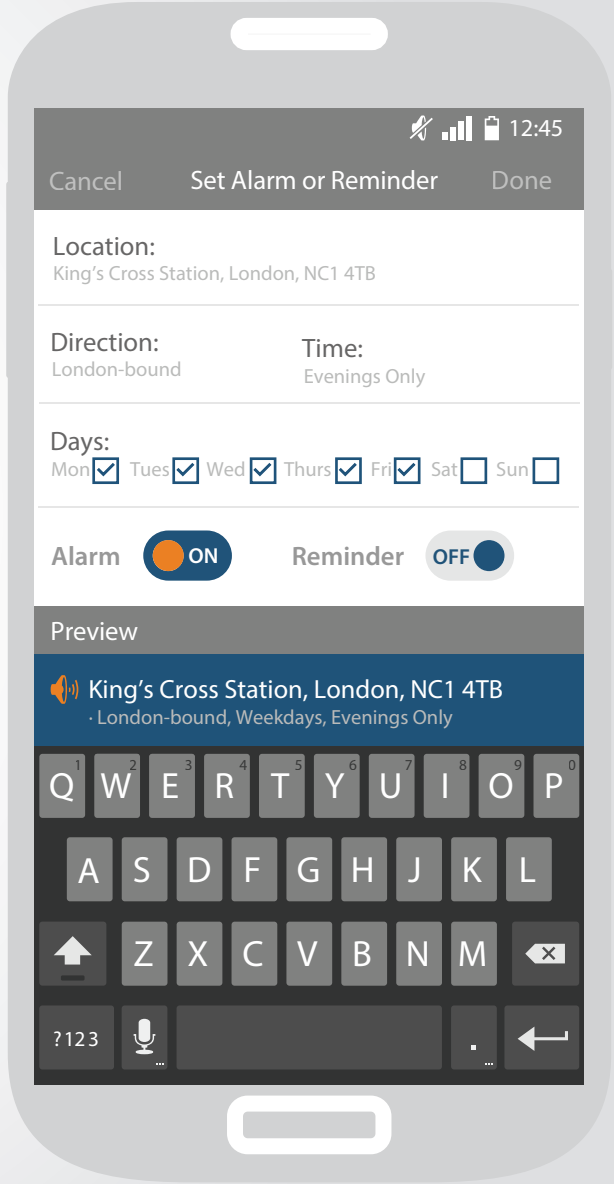


Designs - Setting Alarm/Reminders

This page of the app contains the most information, and dynamic/editable features. The location selected on the earlier page is displayed above editable criteria for setting a customised alarm. If on a train, or other form of transport - a direction can be chosen (ie. an alarm to wake you when coming into a city, but not out of it). Similarly, times (mornings, afternoons/evenings, all day) and specific days can be chosen.

Once this information is entered, the user can choose between an alarm or a reminder. An alarm will simply play a noise and vibrate the mobile device, while a reminder will prompt the user to carry out a user-defined task through a push notification. This additional information can be entered when the "Reminder" button is selected.

A live preview displays what the alarm/reminder will look like if added to the "Pinned" section, or as a push notification.

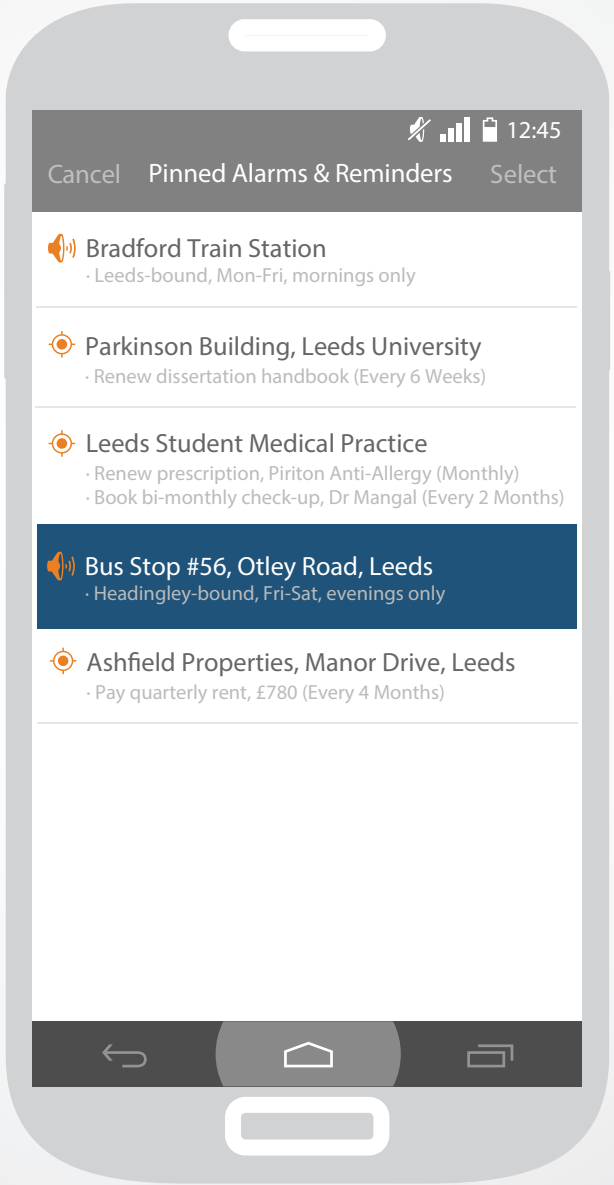


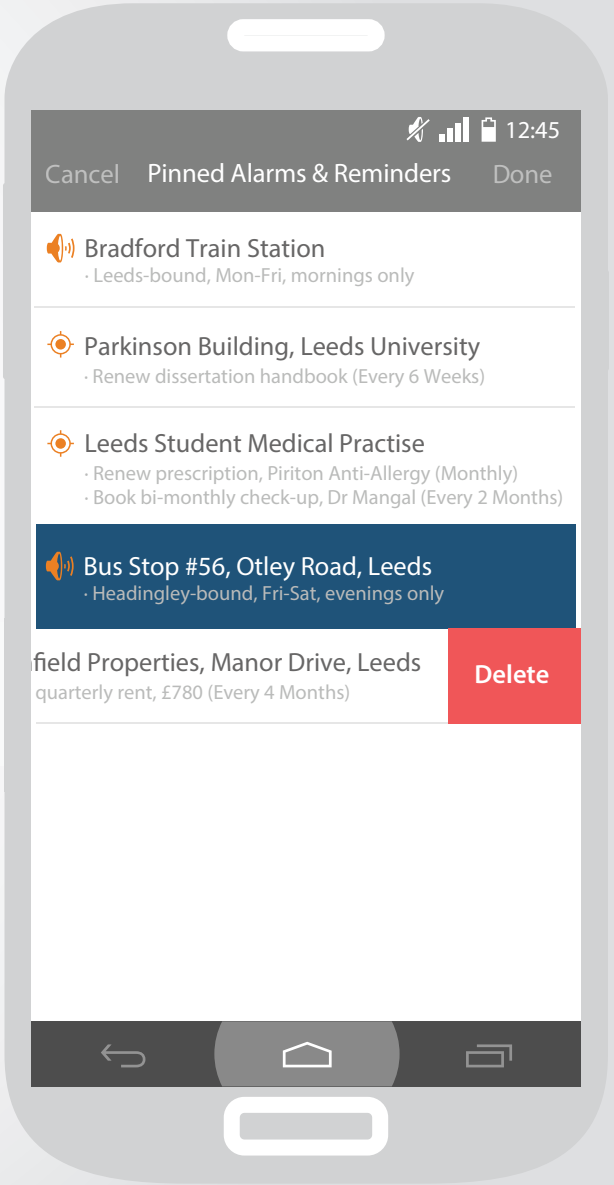
Designs - Pinned Alarms & Reminders

Alongside the search button on the home page, a logo of a pin leads the user to their "Pinned" alarms and reminders. These may be alerts that a user enables on a regular basis, or be highly specific alerts that a user would like to save for future use.

Pinned alerts can be edited by swiping right, or deleted by swiping left, such instructions will be explained in the app's tutorial.

Once the user is finished with this page, they can either "Select" a highlighted alert, enabling it - or "Cancel," which will take them back to the homepage.





Designs - Menu

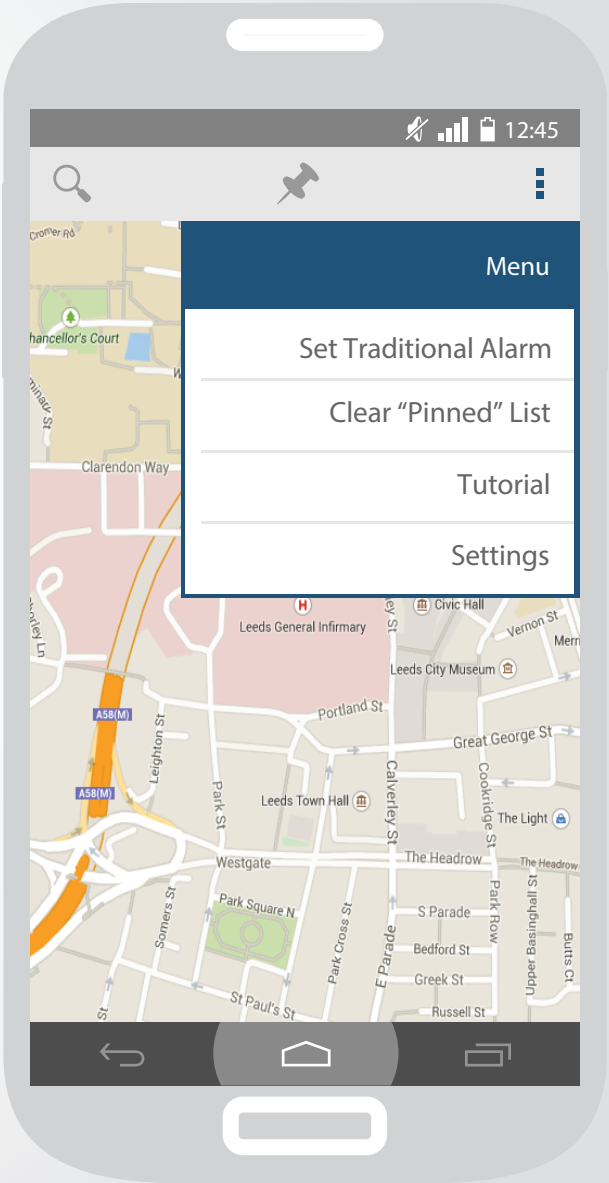
The final button on the homepage is the menu button. In this menu, the user is currently presented with three options. When pressed, a menu appears by a sliding transition, from under the navigation bar.

“Set Traditional Alarm” allows the user to set a standard, timed alarm.

“Clear Pinned Post” clears the users’ saved list.

“Tutorial” will lead to a demonstration and walk-through of the app.

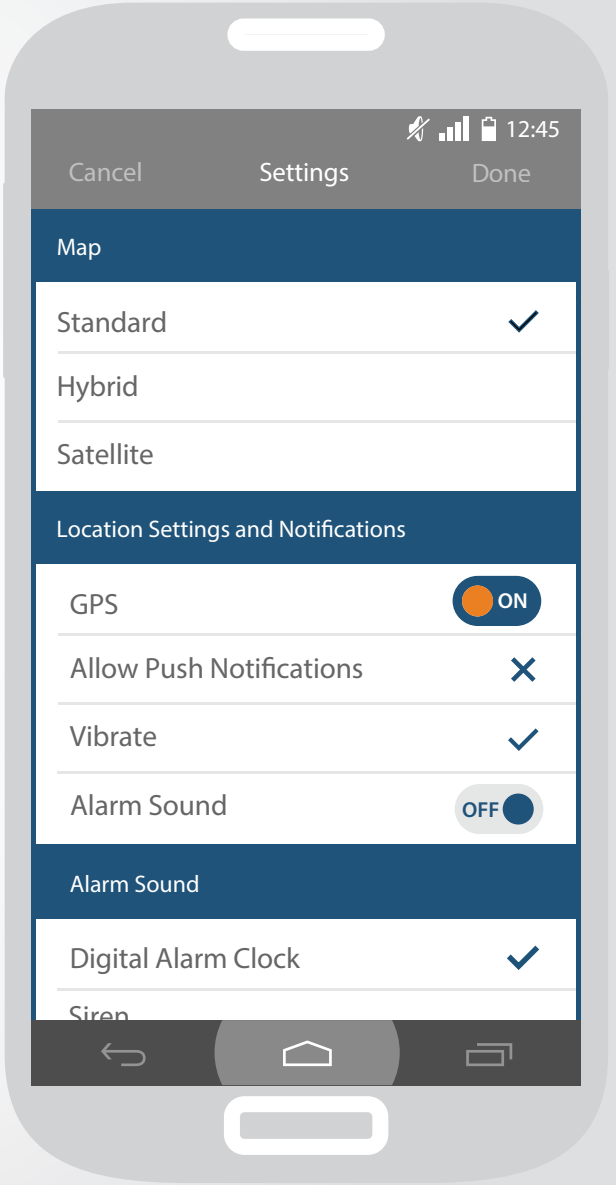
“Settings” will allow the user to explore further customisations and the app’s basic preferences and permissions.



Designs - Settings

The Settings page allows the user to refine the app's permissions and preferences. Different map views are available through Google Maps. As well this, users are able to disable/enable GPS data, push notifications, vibration, alarm sounds, and select an alarm sound.

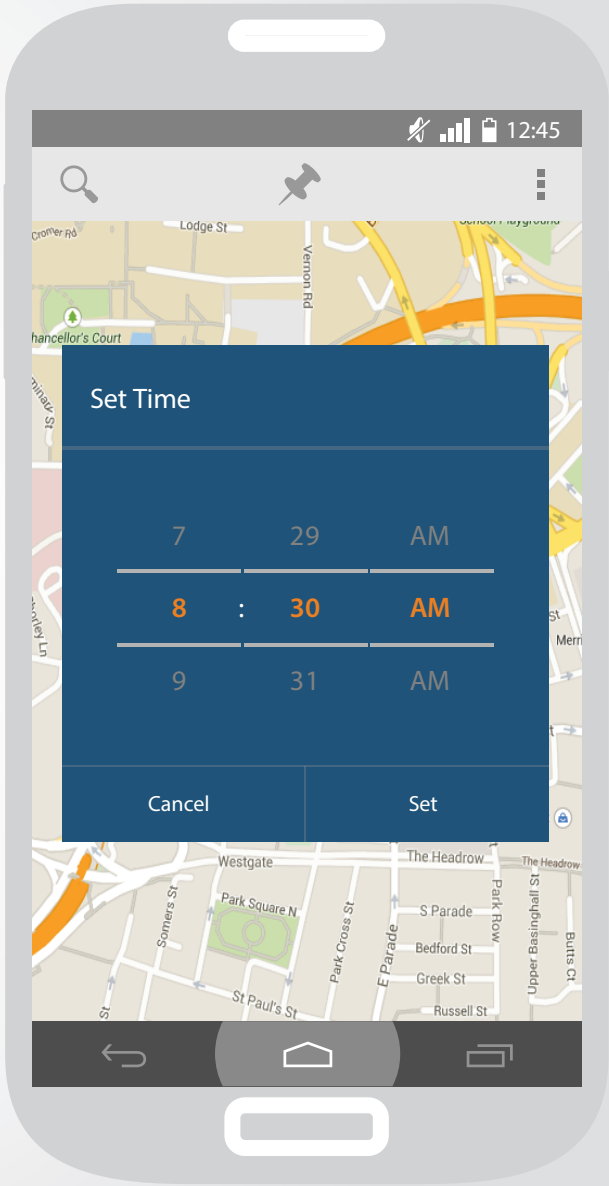
In future versions of the app, it would be expected that the user would be able to disable GPS data until within a certain radius of their desired location - much like the rival app 'GPS Alarm.'



Designs - Traditional Alarms

Localarm also offers users the chance to set a standard, time-based alarm. This offers little more than their mobile device's default alarm feature - although some user's may prefer to set all their alarms within one app, rather than across two.

When selected from the main menu, the user is asked to choose days they would like the alarm to play - followed by a scroll-wheel to set the desired time.



Budget & Manpower

Following research into the workforce and finances required to develop a fully functioning Android application, I now will summarise my budget and manpower expectations.

A mobile application generally requires a 3-person team to built it in a concise, sensible approach. A Business Analyst/Project Leader, a developer, and a designer. The project manager/analyst is in charge of communication, ensuring that tasks are performed on time, and that issues can be overcome. They are also responsible for understanding the app from a range of difference perspectives: knowing it inside out, from both a business and technology point of view. Competitive analysis helps build this knowledge, as well as market research.

Once storyboards have been sketches, and wireframes are conceptualised, the designer is able to step in and create/polish the app's overall appearance. Working hand-in-hand with the developer, who ensures that desired features, front/back-end development and a tested app are made live. This must all be done whilst considering the original designs, and user experience.
I have estimated that this project would take around three and a half months from start to finish.

Budget

Android Only - £11,000*

*This estimate is based on the app having no user login/profiles, the app being purchased by users via upfront cost, no built-in ratings system, alarms saved in a cache, linking to external APIs, professional graphic design/development, and polished logos/branding.

Risk Assessment

Area	Risk	Chance	Impact	Action Plan
Initial research and designs	Audience research finds that there is very little demand for an app such as this	Low	Medium	Re-evaluate app idea, look at potential additions that could make the app more attractive
	Competitor research reveals that there are already app that serve this purpose	High	Medium	Analyse what competitors are lacking in features, or do not do well. Develop differences between apps
	Initial sketches, wireframes, storyboards, etc - may not come across clearly to designer	Low	Medium	Sit with designer and talk through designs, if needed - re-sketch ideas to make them clearer
	Initial ideas and sketching find that the app is hard to "re-do" without familiarities to existing apps	Low	Medium	Again, sit with a designer to talk through potential ideas, analyse what competitors do well, and possible improvements

Risk Assessment, cont.

Area	Risk	Chance	Impact	Action Plan
Design stage	Designer does not deliver finalised layouts/logos on time, delaying project	Medium	High	Project Manager should meet with designer and find out issues/cause of delays, encourage progress
	Designs are not found to be suitable or attractive	Low	Medium	Analyse designs over an extra day, clearly annotate what could be improved/changed for designer
	Purpose of application is not clear, features are not easily accessible	Low	Medium	Ensure that design is focused around the main feature - the map, and searching functions
Development stage	Original plans are found to be over-ambitious, some features cannot be included	Medium	High	Meet with developer to discuss which features are not possible, decide whether it will effect the longevity of the project

Risk Assessment, cont.

Area	Risk	Chance	Impact	Action Plan
	Future development for iOS/Windows phones	Medium	Medium	This is a potential expansion that the application will undertake, experience iOS/Windows developers would be hired
	Development leads to accessibility, privacy, security issues	Low	High	The app uses little user data, and any monetary transactions are carried out through the secure Google Store
Post-production	Bugs found compromise the application, leading to possible delays before sign off	Low	Medium	Delay release date until issues are overcome and re-tested to ensure they are fixed
	Final deadlines are not met	Low	High	Ensure that the developer understands that there is support if needed, encourage dedicated work on project

Enjoy Localarm!