

## IntercomGuest

invite to customers within 100km

I have created small iOS app using Swift programming language as a solution of **Intercom - Mobile Engineer - iOS - Take Home Test**. This is the READ ME document for the application “**IntercomGuest**”, This document gives brief introduction of versions of the language and IDE, installation process, framework used, how to execute the code and how to run tests etc.

### Tools and Versions

Purpose	Tool	Version
Programming Language	Swift	Swift5
IDE	XCode	11.4.1
Operating System	iOS	13



Please open **IntercomGuests.xcworkspace** file as I have used ChameleonFramework cocopod

**Problem Statement:** Given the GPS coordinates for our Dublin office 53.339428, -6.257664. and List of customers with user\_id, name, latitude and longitude, Write a program that will read the full list of customers and output the names and user ids of matching customers (within 100km), sorted by User ID (ascending).

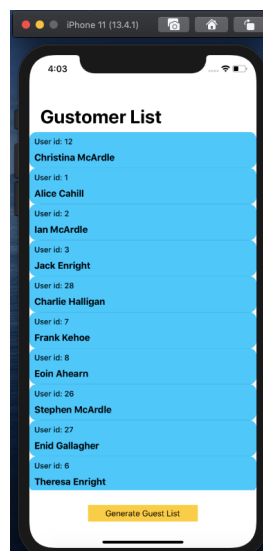
### Solution:

- I have created and iOS mobile application which shows list of all customers from the list on first screen
- On click of the button “**Generate Guest List**” List of the customers within 100km from Dublin office is shown. The resulting list also include distance of the customer from Intercom Dublin office in kilometre
- I have used UITableView to show list of customers on screen and used custom designed cell to populate data from customer list
- The result list on second screen is sorted ascending on user\_id of the customer
- I have used **Great-circle distance** Formula as suggested. The great-circle distance or orthodromic distance is the shortest distance between two points on the surface of a sphere
- For these I have converted degree to radian using “**atan2**” inbuilt swift function

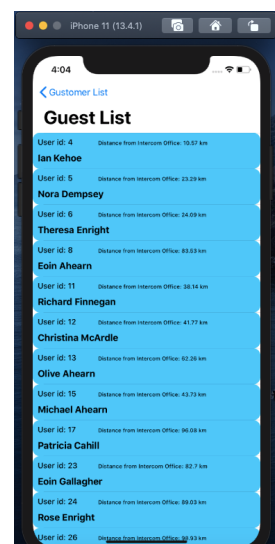
### Output Screenshots:



Launch Screen



Customer List



Guest List

I have also attached output.txt file which contains final output (customers within 100km distance)