WakyZzz

# **App Requirements**

* Allow user to set, modify and delete multiple alarms
* Each alarm may be set to repeat form any day of the week
* When alarm first sounds the user will have an option to snooze the alarm
  + After each snooze action the alarm will pause for 1 minute and will then ring at a higher volume
  + After 2 snooze actions the app will play an evil sound, which will only stop when the user performs a random act of kindness
  + For the random act of kindness the user may select it has been complete or promise to complete it later
  + If promising to complete later the app will remind the user of their decision

# **Client Feedback**

Initial app code is not up to standard :

* When clicking ‘+’ button the view should show 8am as pre-set
* When clicking ‘Delete’ action for an alarm the app crashes
* When adding a new alarm it should append to the list in alarm time, but it is appending to the bottom of the list
* After editing an alarm it is not moving to the correct position on the list for its time
* The alarms are not implemented, no notifications for any alarms
* No implementation for random act of kindness in the code

# **Findings and Fixes**

|  |  |
| --- | --- |
| Findings | Fixes |
| Alarms are not being saved within the application | Implemented Core Data |
| Alarms not sounding | Implemented local notifications – Calendar Notification Trigger for initial alarm |
| Snooze alarms | Implemented Time Interval Notification Trigger for all snooze actions |
| Alarm sound will increase for each snooze | For iOS 12 Critical Sound can be used to set volume of sound on notifications, but to incorporate prior releases separate mp3 files set at lower/higher decibels have been placed in the file |
| Random Act of Kindness | This has been set through local notifications with and option to send a message which will auto open the SMS app and pre compile the content |
| When adding new alarm the time in datePicker shows the current time | Set datePicker to 08:00 if a new alarm is being added, or show the time of the existing alarm if it is being amended  Also model time was set to multiple by 360 rather than 3600 |
| When pressing ‘Delete’ action app was crashing | Code used was alarms.remove(at: alarms.count)  changed to alarms.remove(at: indexPath.row) – so it looked at the row the alarm is on rather than the number of alarms, also number of alarms will always be 1 more than the index number of alarms as index starts from 0 |
| Alarms are appended to the bottom of the table and if edited stay where they are | Implemented didSet for alarms array to sort by time, which is called each tome the array is amended |
| No way to identify alarms for editing, saving etc | Added alarm identifier to object in format of creation date with Month, Day, Year, Hours, Minutes and Seconds - "MMMddyyyyhhmmss" |
| View Controller names very similar – Named *AlarmViewController* and *AlarmsViewController* | This makes reading and writing the code more complex as the only difference in the names is the *‘s’.* To make readability better the view controllers are now called *AlarmViewController* and *SettingAlarmViewController* |
| No private assigned to variables in view controllers | Best practice to add private to variables that are not used outside of the class to minimise options when referencing the class |

# **Tests**

saveAlarm()

Alarms are saved to core Data in correct format

Alarm is calculated as one time alarm when no repeating days are selected and visa versa

Alarm ID is calculated to creation date in the format "MMMddyyyyhhmmss"

Alarm object has correctly assigned one time alarm to repeat data

addNotifications()

Local notifications are set for all alarms saved

There are the correct number of notifications for one time alarms and repeat alarms

Notifications is set with same ID as the alarm ID

disableOneTimeAlarm()

When disable one time Alarm is run only the one time alarm is removed

removeLocalNotification()

Local notifications are removed

removeAllAlarmData()

Core data is set to empty

testTimeCalculation()

getTime calculate correctly the minutes in an hour

# **Results**

**Showing All Messages**

2019-07-11 15:10:30.324595+0100 WakyZzz[6901:707702] libMobileGestalt MobileGestalt.c:890: MGIsDeviceOneOfType is not supported on this platform.

Test Suite 'All tests' started at 2019-07-11 15:10:30.661

Test Suite 'WakyZzzTests.xctest' started at 2019-07-11 15:10:30.662

Test Suite 'AlarmSetUp' started at 2019-07-11 15:10:30.662

Test Case '-[WakyZzzTests.AlarmSetUp testRunInOrder]' started.

save alarm

loadAlarmsCalculateOneTimeAlarms

add notification

add notification closure

disableOneTimeAlarm

remove local notification

removeAllAlarmData

Test Case '-[WakyZzzTests.AlarmSetUp testRunInOrder]' passed (0.131 seconds).

Test Suite 'AlarmSetUp' passed at 2019-07-11 15:10:30.794.

Executed 1 test, with 0 failures (0 unexpected) in 0.131 (0.132) seconds

Test Suite 'WakyZzzTests' started at 2019-07-11 15:10:30.795

Test Case '-[WakyZzzTests.WakyZzzTests testTimeCalculation]' started.

Test Case '-[WakyZzzTests.WakyZzzTests testTimeCalculation]' passed (0.009 seconds).

Test Suite 'WakyZzzTests' passed at 2019-07-11 15:10:30.804.

Executed 1 test, with 0 failures (0 unexpected) in 0.009 (0.010) seconds

Test Suite 'WakyZzzTests.xctest' passed at 2019-07-11 15:10:30.805.

Executed 2 tests, with 0 failures (0 unexpected) in 0.140 (0.143) seconds

Test Suite 'All tests' passed at 2019-07-11 15:10:30.805.

Executed 2 tests, with 0 failures (0 unexpected) in 0.140 (0.145) seconds

/Users/carlwainwright/Library/Developer/Xcode/DerivedData/WakyZzz-dygckrbqkoxrrrdrthkgtenjptrh/Logs/Test/Test-WakyZzz-2019.07.11\_15-10-23-+0100.xcresult/1\_Test/Diagnostics/WakyZzzTests-59768BB4-344B-46AC-8F10-79D1C38B181F/WakyZzzTests-972706EF-1E90-4318-8AF5-6819907AA460/Session-WakyZzzTests-2019-07-11\_151024-cxgSmh.log

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**Testing Complete 11/07/2019, 15:10 8.1 seconds**