**Industrial Training**

**at**

**Infostretch Solutions Pvt Ltd**

**Biweekly Report**

**Trainees:**

Prashant Y Gohel (CE 43)

Computer Engg,  
DDIT.

Sarju R Hansaliya (CE 47)

Computer Engg,  
DDIT.

**Guided By:**

Prof. Nainesh Patel

CE dept,

DDIT.

Kuldeepsinh Kumpavat

Senior Software Engineer,

ISPL.

kuldeepsinh.kumpavat@infostretch.com

|  |  |
| --- | --- |
| **Date** | **Work Done** |
| **09-dec-13 Monday** | Company visit, Informed to come on 16-dec-13. |
| **10-dec-13 Tuesday**  **to**  **13-dec-13**  **Friday** | Not visited company office. |
| **14,15-dec-13** | Weekend |
| **16-dec-13 Monday** | Introduction to office   * Form Filling * Resource allocation * Mentor assignment |
| **17-dec-13 Tuesday** | Learning following topics   * Introduction to objective C * Defining classes * Working with objects * Encapsulating properties and methods |
| **18-dec-13 Wednesday** | Continued learning of Objective C   * Protocols * Categories * Extension * Errors and Exceptions * Blocks * Values and Collections |
| **19-dec-13 Thursday** | Advanced Memory Management   * Attributes of properties * Sample console application in XCode. |
| **20-dec-13 Friday** | ARC (Automatic reference Counting)   * Transition from nonARC to ARC * Converting sample app to ARC |
| **21,22 dec 13** | Weekend (Reporting) |
| **23-dec-13 Monday** | View Controller Basics   * Content and container controller * View hierarchy * Life cycle methods |
| **24-dec-13 Tuesday** | View Controller Catalog   * Nav Controller * Splitview Controller |
| **25-dec-13**  **Wednesday** | Xmas Holiday |
| **26-dec-13 Thursday** | View Controller Catalog   * Page view controller * Popover controller * Tab view controller * Combined view controller * Preparing sample application Iphone (tab + nav) * Preparing sample application Ipad (tab + nav + split + popover) |
| **27-dec-13 Friday** | App States and Multitasking   * Application life cycle * Notification Handling * Background Execution and multitasking |
| **28,29-dec-13** | Weekend |
| **30-dec-13**  **Monday** | View Programming Guide   * Windows Architecture * View Architecture * UI Kit Coordinate System |
| **31-dec-13**  **Tuesday** | View Programming Guide (Cont.)   * Animating Property change * Animating sub view change * Animating the transition from one view to another * Sample app based on above topics |
| **01-Jan-14**  **Wednesday** | Table View Programming Guide   * Table view styles and accessories views * Table View * Table View Controller * Table View Cell * Overview of table view API * Seminar on Auto Layout |
| **02-Jan-14**  **Thursday** | Table View Programming Guide(Cont.)   * Navigating a data hierarchy with table view * Customizing table view cell * Populating table view cell with data * Dynamically * Statically |
| **03-Jan-14**  **Friday** | Table View Programming Guide(Cont.)   * Managing selection in Table view Controller * Insertion and deletion rows and Sections * Managing and reordering of rows in Table * Sample application based on above concepts |
| **04,05-Jan-14** | Weekend |
| **06-Jan-14**  **Monday** | Table View Programming Guide(Cont.)   * Sample Application Modification * Including Checklist * Batch Insert, Delete * Animating Changes |
| **07-Jan-14**  **Tuesday** | Table View Programming Guide(Cont.)   * Sample Application Modification (Cont.) * Edit Mode, Updating * Insert Images * Modally Presenting View Controller |
| **08-Jan-14**  **Wednesday** | Scroll View Programming Guide   * Paging Mode scrolls Zooming with Pinch * Zooming by Tapping * Nested Scroll Views * Scrolling Configuration & delegate methods * Scrolling activity lifecycle interaction methods   Seminar on State Preservation & Restoration |
| **09-Jan-14**  **Thursday** | Scroll View Programming Guide   * Sample App Upgrade * Inserting scrollbar to view Content * Programmatically setting content offset * Zooming facility on image click * NS Data Types and Collections |
| **10-Jan-14**  **Friday** | Location & Map Programming Guide   * Core Location Support * Getting user’s location * Region monitoring * Heading and Course details * Geocoder |
| **11,12-Jan-14** | Weekend |
| **13-Jan-14**  **Monday** | Location & Map Programming Guide (Cont.)   * Displaying Maps * Annotations and Overlays * Sample application based on above topics |
| **14-Jan-14**  **Tuesday** | Holiday |
| **15-Jan-14**  **Wednesday** | Location sample application (Cont.)   * Features added * Routing and distance calculation * Showing device heading and place marks * Adding regions to be monitored dynamically |
| **16-Jan-14**  **Thursday** | Location & Map Programming Guide (Cont.)   * Features added * Callout on annotations * Custom detail view on annotation callout * Registering app as direction provider * GeoJson file addition   Calendar and Reminders Programming Guide |
| **17-Jan-14**  **Friday** | NSSortDescriptor  Sample Application based on Calendar and Reminder   * Features: * Adding custom events programmatically * Adding custom reminders programmatically * Fetching reminders and events of default calendars * Enabling alert for calendar items * Adding geo fencing based reminders |
| **18,19-Jan-14** | Weekend |
| **20-Jan-14**  **Monday** | Sample Application based on Calendar and Reminders(Cont.)   * Added Features * Synchronization with Calendar and reminder application * Creating Custom Calendar * Notification Programming Guide   Core Data Framework   * Basic Architecture |
| **21-Jan-14**  **Tuesday** | Core Data Framework (Cont.)   * Managed object Model * Using Managed object Model * Using Managed Objects * Managed object assessors methods |
| **22-Jan-14**  **Wednesday** | Core Data Framework (Cont.)   * Creating and deleting managed objects * Fetching managed objects * Using managed objects * Object Lifetime management * Relationship and fetched properties |
| **23-Jan-14**  **Thursday** | Sample Application Based on Core Data Framework   * Converting SampleTableVIew Application to Core Data Framework * Wrapper Functions of inserting, deleting and fetching data objects |
| **24-Jan-14**  **Friday** | Block Programming Guide   * Using Blocks * Block Variables * Lexical Scope of Block * Block Array   Introduction to Bluetooth 4.0   * Overview of Bluetooth Low Energy * Overview of Bluetooth Smart and Bluetooth Smart Ready * GATT Protocol |
| **25,26-Jan-14** | Weekend |
| **27-Jan-14**  **Monday** | Core Bluetooth Programming Guide   * Core Bluetooth Overview * Performing Common Central Role task * Performing Common Peripheral Role task * Best Practices for Interacting with a Remote Peripheral Device * Best Practices for Setting Up Your Local Device as a Peripheral   Overview of step count, speed and distance using Core Motion Framework |
| **28-jan-14**  **Tuesday** | Sample BLE enable application(Peripheral)   * Creating and adding services * Creating and adding characteristics in services * Creating readable, notify able , writable characteristics |
| **29-Jan-14**  **Wednesday** | Sample BLE enable application(Peripheral)(Cont.)   * Adding descriptors in characteristics   Sample BLE enable application(Central)  Creation of Bluetooth API |
| **30-Jan-14**  **Thursday** | Bluetooth API(cont)  Sample BLE enable application(Central)(Cont.)  Adding background mode facility to above application |
| **31-Jan-14**  **Friday** | Bluetooth API review  Study of Core Plot API  Study of sample core plot application |
| **1,2-Feb-14** | Weekend |
| **3-Feb-14**  **Monday** | Creation of core plot application for HR Monitor   * Adding date to the graphs * Adding zooming facility * Scaling on different levels for month,date, hour,minutes |
| **4-Feb-14**  **Tuesday** | Study of Hamburger Menu   * Creating sample application for Hamburger Menu   SQLite Introduction   * Studying Basic Blocks provided by API * Basic function * Converting Sample application from core data to SQLite |
| **5-Feb-14**  **Wednesday** | SQLite Cont.   * Study of Batch operation * Study of Binding in SQLite query * Design of wrapper function for SQLite   Seminar on Jenkins – Build Automation |
| **6-Feb-14**  **Thursday** | Transition guide from ios6 to ios7   * Appearance and Behavior * Content View * Controls * Temporary View   iOS Human Interface Guidelines |
| **7-Feb-14**  **Friday** | Analysis of Wireframes   * Workflow design * Checking missing components * Sending updation   Preparing SRS |
| **8,9-Feb-14** | Weekend |
| **10-Feb-14**  **Monday** | Study of Autolayout Guideline  Implementation of Screens   * Screen of User Profile |
| **11-Feb-14**  **Tuesday** | Implementation of Screens(Cont)   * Screen of Left Menu(Hamburger Menu) |
| **12-Feb-14**  **Wednesday** | Implementation of Screens(Cont)   * Screen of Set Workout Goals   Seminar on Audio Unit |
| **13-Feb-14**  **Thursday** | Implementation of screens(Cont.)   * Screen of Dashboard * Screen of heart rate monitor |
| **14-Feb-14**  **Friday** | Implementation of screens(Cont.)   * Screen of Connection manager * Screen of workout reminder * Screen of path on map |
| **15,16-Feb-14** | Weekend |
| **17-Feb-14**  **Monday** | Implementation of Screens(Cont)  Add new reminder screen  Edit existing reminder screen |
| **18-Feb-14**  **Tuesday** | Analysis of touchable UI model  Changes in UI Style guide |
| **19-Feb-14**  **Wednesday** | Following changes made:  Datepicker on Calendar button  Change in View Reminder screen  Setting content offset in each textfield in scrollview |
| **20-Feb-14**  **Thursday** | Integrating BLE API  BLE device connection  HR Notification started  Device disconnect notification |
| **21-Feb-14**  **Friday** | Database API Integration  Creating tables,applying constraints |
| **22,23-Feb-14** | Weekend |
| **24-Feb-14**  **Monday** | DB Connectivity (Cont.)  Set WO Goals  Saving batch data of HR  Goal Completion percentage calculation  Local push notification on goal completion |
| **25-Feb-14**  **Tuesday** | Dashboard screen complete  Adding workout to database complete  Delete workout complete |
| **26-Feb-14**  **Wednesday** | Add new reminder   * Synchronize reminder with iphone reminder app * Creating new calendar |
| **27-Feb-14**  **Thursday** | Edit existing reminder   * Setting alarm into reminder * Setting reoccurrence to reminder |
| **28-Feb-14**  **Friday** | Deleting Reminders  Adding HUD in workout reminder screen  Plotting Heart Rate monitor graph   * Fetching HR data from DB * Zooming in Graph |
| **1,2-Mar-14** | Weekend |
| **3-Mar-14**  **Monday** | Plotting Heart rate monitor graph(Cont)   * Zooming in graph with label changing * Scaling in heart rate data in graph   Page curl control added to Map |
| **4-Mar-14**  **Tuesday** | Setting the labels of dashboard screen  Reconnection on timeout  Implementing step counter on iphone 5s  Check condition that workout goal can't be set when no device or gps availability |
| **5-Mar-14**  **Wednesday** | Bluetooth Connection restoration  Dashboard screen and detail report view are modified as per new style guideline  Testing of step count  Adding support for 64 bit processor  Cancel save button enlarged in reminder screen |
| **6-Mar-14**  **Thursday** | Creating UML diagrams   * Activity diagram * Class diagram * Sequence Diagram * State chart |
| **7-Mar-14**  **Friday** | Diagram (Cont)   * E-r diagram   Added functionality   * Date wise workout report * Reseting all data |
| **8,9-Mar-14** | Weekend |
| **10-Mar-14**  **Monday** | Added Functionality   * Workout statistics till date * Number of workout * Max and Avg Duration, Distance, Speed and Calories |
| **11-Mar-14**  **Tuesday** | Added Functionality   * Voice Assistance on.. * 20 % goal completion * 0.5 miles run cover * 500 calories burn * 5 min duration elapsed |
| **12-Mar-14**  **Wednesday** | Added Functionality   * Music Player Components * Play / Pause / Stop * Previous / Next Song * Building Playlist |
| **13-Mar-14**  **Thursday** | Combining Functionality   * Music Player combined with Voice Assistance * Testing for combined play * Improving quality of voice * Adding support for background sound play |
| **14-Mar-14**  **Friday** | App icon and Splash screen design  Designing app icon for different os and devices  Study of third party control used in application   * Hamburger control * Page curl control * Frosted sidebar control * Core plot control |
|  |  |

**References :**

* Developer.apple.com
* Stackoverflow.com
* Raywanderlich.com
* Code4app.net
* Github.com
* Videos : WWDC
* Book: Programming in objective C by Stephen G Kochan