Task:

1. \_ID
2. taskType (serviceCall, calibration, maintenance, contract, inventory)
3. itemID (if type is calibration, maintenance, contract, inventory) or serviceCallID (if type is serviceCall)
4. itemName
5. Status (Open, Complete)
6. AssignedTo (string)
7. AssignedToContactInfo (string)
8. dueDateTimeStamp(integer)
9. CompletedTimeStamp (integer)
10. CompletionComments (string)

FTSTask:

1. itemName
2. AssignedTo
3. taskType (in string format)

Task UI:

Same as item.

For Task List UI, the list is searchable for the following attributes:

1. itemName
2. AssignedTo
3. taskType
4. dueDate

The following should be shown for each task in the list:

1. itemName
2. taskType
3. AssignedTo
4. Due date (applicable for Calibration, Maintenance, Contract)

For Task Detail UI, use the following views depending on the taskType:

1. ServiceCallView
2. CalibrationView
3. MaintenanceView
4. ContractView
5. InventoryView

Have a “Completed” button in the action bar. When “completed” button is clicked:

1. Pop up a completion dialog:
   1. Completion Comments
2. Update task entity with:
   1. CompletionComments
   2. CompletedTimestamp
3. Delete the corresponding entry in the FTSTaskTable

Have a “Assign To” button in the action bar. When “Assign To” button is clicked:

1. Pop up a Assign To dialog:
   1. Assign To – should be linked to Android Contacts Manager for suggestions.
   2. Contact Info
2. Update task entity with:
   1. Assign To
   2. Contact Info
3. Update the corresponding entry in the FTSTaskTable

For populating the task table:

1. Have action bar button on TaskList view called “Query for new tasks”. This will show a dialog box telling about delay due to intensive computing to be done in the background.
2. A service that runs that 1:00 am to computeTasks().
3. Should use the JobInfo API for Lollipop (and higher). If older OS is found, use the AlarmManager (implement this in scheduleJob()).
4. A settings UI to change the 1:00 am default time for computeTasks().
5. ComputeTask():
   1. There can only be one task per service call and for the tuple (itemID, taskType)
   2. Collect all currentTasks in list1.
   3. Compute new tasks and put them in list2
   4. Subtract list1 from list2
   5. Add remaining list2 items to the Tasks Table and the FTSTaskTable.
   6. All new tasks have assignedTo set to “None”.
   7. The message to show is “The new tasks are being computed. This may take a while. Please check back after a few minutes.”

Item Attributes

1. Type (Instrument, Consummable)
2. For Instrument:
   1. Reminders
      1. Service Call
      2. Maintenance
         1. Frequency (every x days)
         2. Last Done date
         3. Instructions
      3. Calibration
         1. Frequency (every x days)
         2. Last Done date
         3. Instructions
      4. Contract
         1. Frequency (every x months)
         2. Last renewed date
         3. Instructions
3. For Consummable:
   1. Minimum Required Quantity
   2. currentQuantity

Service Call Entity:

* + - 1. \_ID
      2. itemID
      3. Description
      4. Priority
      5. Status (Open, Closed)
      6. OpenTimeStamp
      7. ClosedTimeStamp

Misc:

1. Validations!
   1. Implement item validations inside updateItemFromUI.
   2. Ditto for task
2. Make sure item name text view is non-empty before saving
3. Overdue tasks should be highlighted somehow
4. Settings UI for:
   1. Contract reminders period (default: 30 days before contract expiry)
   2. Maintenance reminders period (default: 7 days before due date)
   3. Calibration reminders period (default: 7 days before due date)
5. Need UI for consumable checkin/checkout
   1. have “+” and “-“ action bar buttons in the ItemDetail if the item is a consumable
6. Need UI for service call
   1. Have a “service call” action bar button in ItemDetail
      1. Enabled only for instruments
   2. Pops up a dialog for filling out Service Call entity attributes