

# **TODO List Manager on Steroids**

## **Vision Document**

### **Team 3.09**

## **1. Introduction**

The goal of the project is to extend the existent TODO List Application on Android to a Web application and to provide sync functionalities between the Android and the Web application, thereby enhancing the user-experience.

## **2. Business Requirements**

### **2.1 Background**

Initech has successfully completed the design of a TODO List application for managing user's tasks on Android platform.

### **2.2 Business Opportunity**

Initech foresees to increase the user pool of the TODO List application since the existing product is applicable only to the users on Android platform.

### **2.3 Business Objectives**

Initech plans to extend the existing TODO List application on the Android platform to a web-based application since there are a potentially huge number of users on the web platform.

### **2.4 Business Risks**

The current application has to be modified without affecting the existing users of the TODO List application on the Android platform. Also proper sync has to be provided between the users of the Android and the Web applications with appropriate conflict management policies.

### 3. Stakeholders and Users Description

#### 3.1 Stakeholder Summary

Name	Nominations	Responsibilities
Developer – MTM	Ishwarya Balaji Gururajan Gerard Mundo Bosch Manika Andotra Pujita Vijayvargiya	Develops the TODO List Application on Android platform and implements the local database
Developer – WTM	Ishwarya Balaji Gururajan Gerard Mundo Bosch Manika Andotra Pujita Vijayvargiya	Develops the TODO List application on Web platform and implements the centralized database
Developer – Sync	Ishwarya Balaji Gururajan Gerard Mundo Bosch Manika Andotra Pujita Vijayvargiya	Responsible for the synchronization between the TODO List applications on MTM (local database) and WTM (centralized database)

## 3.2 User Summary

Name	Description	Responsibilities	Stakeholder
User – MTM	User on Android platform	The user manages tasks (add/ edit/ delete/ checkoff) on the TODO List on Android platform	Developer - MTM
User - WTM	User on Web platform	The user manages tasks (add/edit/ delete/ checkoff) on the TODO List application on web platform	Developer - WTM
User – MTM, WTM	User on Android/ Web platforms	The user collaboratively use the TODO List applications on both the platforms to manage tasks (add/ edit/ delete/ checkoff/ sync)	Developer - MTM, Developer – WTM, Developer – Sync

## 4. Solution Overview

### 4.1 Vision Statement

The product is to provide a collaborative solution to the users on both the Android and Web platforms. The TODO List manager is to be designed so as to

be used as a stand-alone application on either of the platforms as well as synced with each other. This product will serve as an extensive, flexible and yet a powerful tool for managing the tasks.

## 4.2 Major Features

- 1) The application must be capable of adding tasks to, deleting tasks from and editing tasks in a task-list.
- 2) The TODO List Manager should comprise of 2 applications with shared functionalities.
  - a The Mobile TODO List Manager (MTM) running on Android platform.
  - b The Web TODO List Manager (WTM) running on standard web browser.
- 3) Users must be able to add tasks to a list by specifying the tasks' name, priority, and due date.
- 4) There should be a default value for priority and due date, so that users won't have to necessarily specify them in both the applications.
- 5) Users must be able to check off items in a list (without deleting them) in both the applications.
- 6) Users must be able to hide or show checked-off items in both the applications.
- 7) MTM must contain a local database (LDB) and WTM must rely on a centralized database (CDB).
- 8) Information in the LDBs on the local phones must be synchronized with the information in the CDB when the application starts and when users perform an explicit synchronization. The synchronization happens in both directions:
  - a TODO items updated on the phone should overwrite the corresponding items on the CDB.
  - b Analogously, items updated on the web (and thus the CDB) should overwrite the corresponding items on the phone.
  - c New items on the phone should be copied to the CDB.
  - d New items on the CDB should be copied on the phone.
  - e Conflicts must be suitably handled.

- 9) On MTM, TODO lists must be saved (locally) automatically and immediately after they are modified.
- 10) On MTM, lists are also saved on the CDB when the application starts and when users perform an explicit synchronization, as described above.
- 11) On WTM, lists are saved (in the CDB) when users perform an explicit save.
- 12) Both applications must support multiple users, each one with their own lists.
- 13) The User Interface (UI) must be intuitive and responsive.

## **4.3 Assumptions and Dependencies**

### **4.3.1 Assumptions**

We are assuming that

- 1) The user is capable of handling an Android compatible device and a web browser
- 2) The user is aware of the synchronization consequences when the updated items on one platform overwrite the items on another platform and when new items on one platform are copied on to the other machine.
- 3) Network connection is available on both platforms.
- 4) The conflict handling policy is inclined towards the centralized database.

### **4.3.2 Dependencies**

- 1) Network connection must be available to perform sync on the mobile platform.
- 2) Network connection must be available on the Web platform throughout.

## **5. Scopes and Limitations**

### **5.1 Scope of Inception Phase**

This phase involves gathering requirements from the customer and mapping the requirements appropriately into a use-case model. Project plan has to be proposed explaining the various phases involved with the projected estimates. Initial prototype has to be presented to give a feel of how the user interfaces might appear.

### **5.2 Scope of Elaboration Phase**

This phase involves working on the feedback provided by the customer on the initial phase. Thus the use-case model and initial prototype has to be modified/ redefined based on the feedback. Supplementary requirements have to be gathered along with the major requirements listed in the previous phase. Software architecture and design have to be done based on the new use-case model. An executable prototype has to be presented.

### **5.3 Scope of Construction Phase**

This phase involves the conversion of the prototype into a software product. Traceability matrix has to be created to ensure the completeness of the project requirements. The system and unit testing results have to be presented along with the product.

### **5.4 Scope of Transition Phase**

This phase involves the final delivery phase of the software product along with all the required artifacts. Also a post-project assessment is performed so as to improve the working model and resolve the issues faced during the implementation.

## **5.5 Limitations and Exclusions**

The projected is executed phase-wise as mentioned above. Modifications and redefinition are done based on the customer feedbacks.

## **6. Other Requirements**

### **6.1 Quality Requirements**

#### **6.1.1 Usability**

The application must be user-friendly. The user interfaces have to be intuitive.

#### **6.1.2 Portability**

The MTM application must work across various Android versions from 4.0.5. The WTM application must be compatible with various browsers and versions.

#### **6.1.3 Reliability**

The application must be accurate providing seamless synchronization between MTM and WTM.

#### **6.1.4 Scalability**

The databases should handle large number of users and large number of tasks in the task-list in turn for every user.

#### **6.1.5 Security**

The user's information should not be compromised. The tasks managed by any user should not be visible to any other user. The passwords must be encrypted and stored.

## 6.2 Environment Requirements

**MTM:** Compatible android device

**WTM:** Standard web browser

## 6.3 User Requirements

### 6.3.1 User Interfaces

**MTM:** Graphical touch interface on the android compatible device

**WTM:** Graphical user interface on the web browser

### 6.3.2 User Characteristics

User must be capable of using an Android compatible device and a basic web application through a web browser.

## 6.4 Documentation Requirements

### 6.4.1 User Manual

User Manual document must be provided to the user describing the usage of the TODO List application on both Android and Web platforms and how to perform sync from android to web application and vice-versa.

### 6.4.2 Online Help

Online help must be provided to assist the users of the TODO List on web platform. It should provide a detailed description on how to use the application and how to perform sync between the platforms.



## 7. Revision History

Date	Version	Description	Author
10/14/2012	1.0	Initial Draft	Ishwarya Balaji
10/15/2012	2.0	Revised Draft	
10/16/2012	3.0	Final Document	