

TODO List Manager on Steroids

Revised Risk Assessment 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.

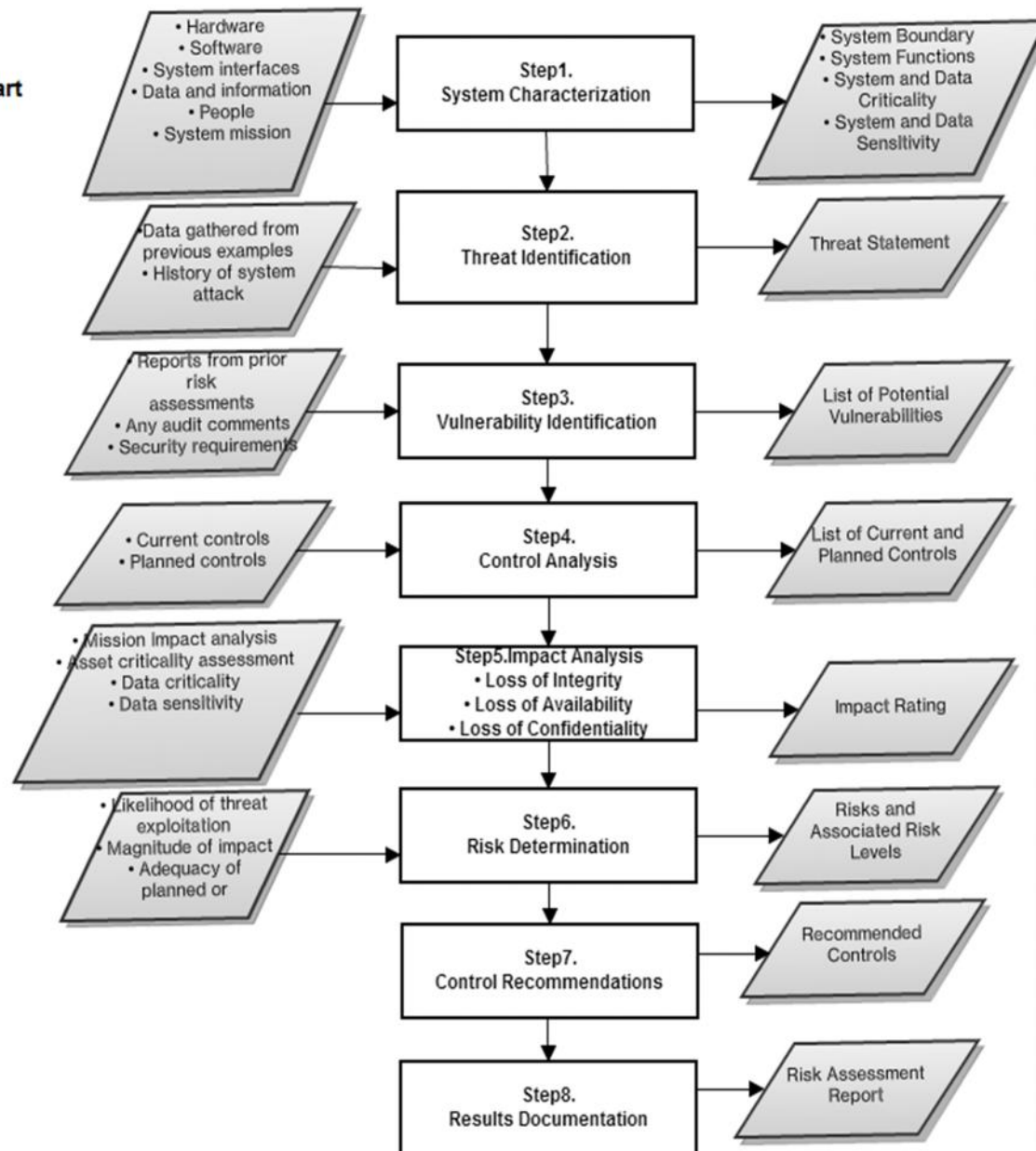
2. Purpose

The purpose of this risk assessment is to evaluate the adequacy of the program security. This risk assessment provides a structured qualitative assessment of the operational environment. It addresses sensitivity, threats, vulnerabilities, risks and safeguards. The assessment recommends cost-effective safeguards to mitigate threats and associated exploitable vulnerabilities.

3. Risk Assessment Approach

The assessment recommends appropriate security safeguards, allowing development team to make knowledge-based decisions about security-related initiatives. The basic elements of software risk management are goal, uncertainty, loss, time, choice, intelligent decisions, resolving risks and preventing problems. A basic Risk Assessment Methodology is described below in the form of a flowchart.

Risk Assessment Methodology Flowchart



4. Risk Analysis

Our risk analysis is based on determining the various risk factors, calculating their impact and severity level on the program (or system) and resolving them with appropriate mitigation steps.

The importance or level of a risk is determined by its characteristics' impact and likelihood.

The level of risk helps to understand the intensity of testing to be performed. A risk level can be expressed either qualitatively (e.g. high, medium, low) or quantitatively. We are expressing risk levels qualitatively in our analysis.

The risk factors are associated with the activities prior to and during the development and deployment of a software product. These can be categorized broadly into the following three types:

- a. Size factors related to the size and complexity of the project
- b. Structural factors related to the organizational complexity of the project
- c. Technological factors related to the technology components of the system

5. Risk Determination and Mitigation

| Risk Items | Category | Risk Level/ Impact | Likelihood/ Occurrences | Risk Mitigation Steps |
|--|--------------------------|--------------------|-------------------------|---|
| Total development man-hours for the project. Exceeding this leads to loss of trust and commitment. | Development Size factors | Low (200 hours) | Low | The project members need to adhere with the timelines to minimize risk in this. |
| Estimated project implementation time. Exceeding this results in delay and bad | Development Size factors | Low (14 days) | Low | Breaking up the project into smaller deliverables reduces the risk of a total failure. Defining schedule around these |

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| name. | | | | usable components is a critical success factor. |
| Estimated size of program code. Unnecessarily long and confusing code makes debugging tough. | Development Size factors | Medium (4000 LOC) | Low | The coders are expected to modulate the program into workable units and testers should test the code thoroughly before delivery. |
| User organization needs to change to meet requirements of new code. | Development Structural factor | Medium | Medium | The user accustomed to using the Android app needs to know how to access the same on a web browser. |
| Technology Availability | Development Structural factor | Low | Low | The Google App engine is readily available to move the app onto the web browser as well. |
| Reusable software components | Development technology factor | Low | Low | Since the basic Android app has already been made and modifications to the same are required, there is a low risk of messing with the main code. |
| Adaptability to change | Development technology factor | Medium | Medium | The system should be able to adapt to changes easily since it is a modification code in the first place. |
| Margin of Error – the amount of time between the entry of a transaction and the response to the transaction. | Development technology factor | Medium | Medium | Install manual checkpoints to verify the results on the application. This can be as simple as cross checks with |

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|---|-------------------------------|------|------|--|
| | | | | scheduling, previous day's runs, trend analysis and other historical data. |
| Newly launched Google End-point technology being implemented to communicate between the two databases | Development technology factor | High | High | The Google end-point technology being relatively new may not have enough support or documentation making it harder to use |
| Ability to obtain permissions for Google Trusted Tester program for using Google Cloud End-points | Development technology factor | High | High | The Google end-point technology being relatively new is only available to users signed up for the Google Trusted Tester program. In case we don't get access, we need to be ready with an alternate scheme for establishing communication between the two databases. |

6. Revision History

| Date | Version | Description | Author |
|------------|---------|---------------|----------------|
| 10/17/2012 | 1.0 | Initial Draft | Manika Andotra |
| 10/24/2012 | 2.0 | Revised Draft | Manika Andotra |