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| Inther Software Development |
| ISD Inventory System |
| Software Requirements Specification |
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| Version 0.1 |
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| Software Requirements Specification for ISD Inventory System project to be implemented during the internship session in April 2016. |

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1. Introduction
   1. Purpose

This document describes general Software Requirements Specification for the ISD Inventory System project that is to be implemented during the Internship Session in April 2016. The document will serve as a requirements base for the project team. Furthermore requirements and details will be identified, discussed and agreed on in an Agile development method.

* 1. General Description

The ISD Inventory System project represents a small R&D project, having the main scope to investigate the opportunities of mobile domain and communication. As a result the project team should deliver a fully functional product, which can represent a good overview of a distributed application.

The project itself represents a distributed system that has as main scope to automatize inventory process in an office. In short, a small server will collect scanned barcodes over intra-network from web flow or an mobile application that later this date will be used on generating some general reports about scanned goods, like:

* Who uses scanned item
* How many items do we have

Also we might have flow that ask to scan barcode and then server gives you data regarding scanned item. The server will provide a Web Page and a communication layer for different clients to subscribe. On webpage or on mobile device we should be able to attach multiple goods to one employee.

General topology of the product is shown below:

C:\Users\dcebotarenco\Downloads\Untitled Diagram.png

1. Specific Requirements
   1. Functional Requirements

As it results from the short project description, the product that needs to be implemented can be split into several parts.

* + 1. Server

First thing to implement is the server side. Server side is able to store data scanned into Database. The communication might be done over RESTful, SOAP or AMQP layer.

* + 1. Web

Web site should have a flow that allows to scan goods and attach them to employees. Also we should be able to scan goods and webpage displays who scanned item belongs to. Flows have to be defined during the development. Also we should have some overviews for collected data.

* + 1. Mobile app

Mobile application should be able to run a flow that allows us to scan using camera, barcodes of specific type. We will introduce employee barcode that will allow us to attach goods to employees. Data scanned should be transferred to server.

* 1. Non Functional Requirements
     1. Project Methodology

The project itself will be implemented using Agile SCRUM. There will be 4 Sprints, one week long each. The development team size is limited to 3 people. Specific detailed project requirements will be refined for each sprint apart, in dependency of the actual project progress.

* + 1. Source Code

Delivered source code should be of high quality, easy maintainable, tested and documented. All the source code will be open source.

Project should be versioned using Git and hosted on GitHub. High quality documentation is a must, both as properly commented code and as a proper documentation document delivered with the project.

Documentation should contain technical knowledge, for future developers, but to not forget end user documentation as well.

* + 1. Software Tools

The project team is to decide on the tools to be used during the development process. The only requirement is to use freeware user friendly tools. All the used tools should be mentioned in the documentation. All the tools should fully operational on Microsoft Windows.

* + 1. Hardware

Hardware is basically limited to what the company has already in stock, defined by the list below:

* **Android Tablet** – used by operator to scan goods.
* **Server Machine** – host for software

Future needed hardware components can be acquired based on team request.