

**PROJECT PLAN**

**CIM-Project**

**Customer Information Management System**

**Lahjapaja Oy**

**Marketing and Sales**

**Proj-Amo Oy/HAAGA-HELIA**

**MKSK**

Version 0.1 Proposal

Created by MKSK 24.01.2013

Approved by Steering Group 24.01.2013

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# 1 PROJECT DEFINITION

## 1.1 Background

Lahjapaja Oy has carried out an IT-study. As a result of this study a comprehensive development program has been initiated in order to enhance the use of modern information technology in sales and marketing, warehousing and financial administration.

The goal of the IT-development program is to improve the quality of company’s data administration and thus essentially increase efficiency and productivity in the whole company.

A feasibility study was carried out concerning particularly marketing and sales functions. (See Suihko, S. Enhancing Functions and Information Systems in Marketing and Sales). This study led into a project initiation of developing a new Marketing and Sales System. Attached to this project, a separate requirements analysis has been carried out. (See Peuhu, T. Requirements Engineering Document of Marketing and Sales System).

The development of Marketing and Sales Information Systems requires a large investment program. It will be implemented by carrying out several projects. One of these projects is the Customer Information Management Project, CIM. The management of Lahjapaja has 22.12.2012 decided to launch the CIM-project in January 2013. The Order Processing Development project, OPD, will be started later during the spring 2013.

Lahjapaja has made an agreement with Proj-Amo Oy concerning the development of the new Marketing & Sales System. According to this agreement, Proj-Amo uses HAAGA-HELIA as a subcontractor. CIM-project will be carried out as a student project during the course Information System Development Project. This project plan concerns HAAGA-HELIA’s part of the CIM-project.

## 1.2 Task

The task of the CIM-project is to define, design and build a prototype of the Customer Information Management –system for Lahjapaja Oy. The prototype is used to test the functionality, usability and the features of the new system, which will be completed and finalized in the follow up construction project during summer 2013. The system needs to be adequate to the business model of the company according to the documented processes of workflow.

## 1.3 Deliverables

Project deliverables are:

* System Definition and Specification Documentation
* System Design Documentation
* Test plan
* Database and a prototype of the system

Based on the System Requirements Analysis results, MKSK group defines designs and implements the application and related database solution, that will be centralized for Lahjapahja OY. CIM-system must be compatible with Lahjapaja’s system architecture. System prototype and related documentation will be delivered to Lahjapaja by Proj-Amo. Quality of all deliverables must meet the criteria described in Chapter 3.1.

## 1.4 Scope

MKSK group provides only the construction of the prototype of Customer Information Management system. The implementation of the finalized production version and deployment of the system are not included into this project.

## 1.5 Risk Analysis

Project risks are described and analyzed in Appendix 1.

## 1.6 Organization

Steering Group

(representing customer )

Ralf Rehn, chairman

Juha Pispa

**Project Manager (rotating)**

Michal Kucera

Project Secretary

**(rotating)**

Elizaveta Kantina

**Project Team**

Alexey Malkov

Alexander Strelchenko

Alexey Malkov

Alexander Strelchenko

Picture 1. Project Organization

### 1.6.1 Roles and responsibilities:

Project Manager (rotating): Michal Kucera

* communicates with the steering group
* defines the direction of the project
* has overview of the project
* coordinates resources
* assigns tasks
* makes sure that the project meets time and business requirements
* manages the critical situations

Project secretary (rotating): Elizaveta Kantina

* acts as a secretary in steering group meetings
* acts as a secretary in project team meetings
* make sure that every team member acquires the relevant information of the project
* is responsible for the project and system documentation
* participates project work as planned
* plans and organizes review and testing occasions
* takes care of backing up documentation and software deliverables

Project team members: Alexey Malkov

Alexander Strelchenko

- carries out learning and system tasks according to the project plan

* takes care of other tasks agreed within project team
* participates project work as planned
* takes care of system change and version management

- provides feedback about assigned tasks

## 1.7 Environment

### 1.7.1 Interest Groups of Project Result

Lahjapaja’s Financial Management Systems

Lahjapaja’s

Marketing & Sales Systems

Lahjapaja’s Ordering System

Lahjapaja’s

Invoice

Customers

**Curstomer Information Management**

**System**

System

Lahjapaja’s Warehousing System

Lahjapaja’s Personnel and

Retail Shops

Suomen Asiakastieto Oy

Picture 2. System Connections

Lahjapaja Oy is the owner and user of the new Customer Information Management System. With the use of the CIM-System, company manages and stores information about their invoice customers. Suomen Asiakastieto Oy delivers customer creditworthiness information. The Ordering System, Marketing & Sales System, Financial Management System and Warehousing System use customer information created and managed by Customer Information Management System.

Sales & Marketing Department sets customer discount rates and monitors delayed payments.

Proj-Amo Oy delivers all Lahjapaja’s information systems and is responsible for compatibility and usability of delivered systems.

HAAGA-HELIA can use CIM-system specifications and software in teaching purposes. HAAGA-HELIA does not have access to Lahjapaja’s real customer data.

### 1.7.2 Construction Environment

MKSK is going to use the following resembling development environment:

Development of software:

1. Systems design and documentation

* MS-Office
* Acrobat Reader
* F-Secure Anti-virus (Latest version)
* F-Secure SSH (Latest version)
* Remote secure connection to Haaga-Helia resources
* Git
* Skype
* Google plus
* Google docs
* Dropbox
* Trello

1. Creating the prototype and testing

* Visual Studio 2010
* Microsoft SQL Server 2008 R2
* Axure
* Proto io

## 1.8 Purchases and other costs

Project doesn’t require any purchases. Because of the nature of the student project, costs are not allocated for the project. So, only the use of working hours of project team is to be recorded and monitored.

# 2 WORK PLAN

## 2.1 Phases

Project contains managerial and system development tasks. Project is to be monitored by steering group. Planned milestones are defined in Appendix 2, Project work structure and phases.

System Prototype development process can be carried out using incremental development cycles. Possible iterations are described in Appendix 2, Project work structure and phases.

## 2.2 Tasks, workloads and deliverables

Each and every phase and iteration has predefined starting criteria and deliverables. These will be used in quality assurance and steering. Workloads are estimated and will be monitored in hours. The complete workload is estimated to be 1200-1600 hours. The size of the project team is 5-6 persons. Each person is estimated to carry out a workload of 20 hours a week, **including also learning activities: class lessons and readings**. Workloads of tasks are described in Appendix 3, Tasks and timing. Project team is responsible for recording the actual use of working hours on weekly basis.

## 2.3 Timing

Project will be started 25.1.2013 and finished 15.5.2013.

Detailed schedule is described in Appendix 3, Tasks and timing.

## 2.4 Working Methods and Standards

Project applies working methods used by Proj-Amo Oy and HAAGA-HELIA: Object oriented –modeling methods and Unified Modeling Language -notation.

In quality assurance, ISO 9000-3 Quality management and quality assurance standards Part 3: Guidelines for the application of ISO 9001 to the development, supply, installation and maintenance of computer software will be applied.

## 2.5 Project Management

Managerial procedures

- project is carried out according to the approved project plan

Project reporting

- project monitors, records and reports status as described in project plan

Timing

- project applies approved project plan schedule

Reviews and Approval

- quality assurance reviews and testing will be carried out as planned

- steering group must approve results and accept changes of project plan

Meetings

- steering group meetings will be held according to the project plan

- project team and tutoring meetings will be held weekly

Informing

- steering group takes care of the informing of the project

- project manager informs steering group and project team

- e-mail and Moodle will be used as channel for the inside information

# 3 QUALITY PLAN

## 3.1 Quality Goals

All project results must meet defined quality standards. The delivered CIM-system prototype must meet also all customer defined usability requirements. All results must be reviewed, tested and approved as planned.

To keep up the planned schedule is also essentially important. The status of the project and use of resources will be monitored by steering group, project manager and team members as described in project plan.

## 3.2 Quality Procedures and Responsibilities

Reviews and software testing will be used as quality assurance methods. All system documentation must be reviewed. Reviews and testing activities are scheduled in Appendix 3, Tasks and timing. Testing must be described in detail in Test Plan produced by project team during the project. A written memo, including error report, is required from each individual review and testing occasion. Project manager is responsible for these procedures.

Project team is responsible for recording the actual working hours weekly and report them in steering group meetings so, that a comparison of used and planned workloads is shown periodically and cumulatively from the start of the project; on individual level and project total.

## 3.3 Documentation- and Version Management

Documentation must meet sufficient level of standards of good written communication and system development specific standards like UML.

Documents to be stored and delivered are:

Project documentation

* project plan
* project status reports
* final project report
* notices and minutes of meetings of project steering meetings

System documentation

* System definition and specification Documentation (OOA)
* Design documents (OOD)
* System prototype code (OOP)
* Testing documents

Version management must be applied to all project documentation and software deliverables.

# 4 SOURCES AND REFERENCES

Suihko, S.

Enhancing Functions and Information Systems in Marketing and Sales. 12.12.2012. Lahjapaja Oy

Peuhu, T.

Requirements Engineering Document of Marketing and Sales System 15.12.2012. Proj-Amo Oy

ISO/IEC 12207. Information technology - Software life cycle processes.

ISO/IEC 6592. Information technology - Guidelines for the documentation of computer-based application systems.

ISO 9000-3. Quality management and quality assurance standards. Part 3: Guidelines for the application of ISO 9001 to the development, supply, installation and maintenance of computer software (ISO 9000-3:1997)

HAAGA-HELIA’s course documents and guidelines.

## APPENDIX 1 DEFINITION AND ANALYSIS OF PROJECT RISKS

\*) S = small, M = moderate, B =big/considerable.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Risk** | **Probability** | **Effect**  **\*)** | **Reasons** | **Precaution, protection of risks** | **Actions and measures of consequences of risks** |
| Loss of key person(s) | S | B/S | Forced deportation of team members, argue resulting in physical death of the person,  withdrawal from the course,  attendance of team members in other courses | Respecting the Finnish law, unique culture and rules, replacing the argues with a debate, understanding and positive thinking, regular meditation, good time management and activity in the course | Allocation of new resource(s) without delay.  Have to be approved by the steering group.  Flexibility in assigning of tasks and arranging times of meetings. |
| Sickness of team member(s) | S/M | M | Not predictable | Taking care of good physical and mental condition, acquiring adequate winter clothes. | Ensured healing process. |
| Loss off motivation | S | M/B | Burn out because of heavy workload in other courses, unclear tasks and guidance from our teachers | Understanding own role and contribution as part of the whole, creating a good team spirit, positive thinking and assuming Finnish “SISU”, clarification of tasks by active asking approach | Reorganizing workloads and/or timing (Have to be approved by the steering group).  Teambuilding activities |
| Delay in timing | M | M/B | Pending situations, lack of planned resources | Realistic project plan and good project management and steering. | Reorganizing tasks and timing.  Have to be approved by the steering group. |
| The value of the results becomes small or obsolete | S | M/B | Requirements or goals are not being properly understood or defined. Customer doesn’t clearly specify his own needs. | Clearing of goals and concrete deliverable together with customer experts. | Reconsideration of goals and /or deliverables. Re-planning of the project. Interrupting the project.  Have to be approved by the steering group. |
| Documentation or software files corrupted or damaged. | S | M/B | Technical reason. Industrial espionage. | Proper safety and back up procedures. | Restores from backups and safety copies. |
| Unrealistic work loads | S | M | Wrong estimates by project manager or the steering group | Good project feasibility estimation, good project management and rapid correction actions. | Reorganization and reallocation of work. Have to be approved by the steering group. |
| Lack of proper communication | S/M | S/M | Misunderstandings, technical devise problems | Developing team members’ communication skills | Correction of errors and inadequate informing procedures. |

## APPENDIX 2 PROJECT WORK STRUCTURE AND PHASES

**8**

**Closing of the project**

**1**

**Starting of the project**

**7**

**Managing and steering of the project**

2 Analysis of Requirement analysis results

4

OOD of CIM

3 OOA of CIM

5a

System Testing

5

Prototyping the CIM

1st. iteration

3b

Checking / supplementing of OOA of CIM

4b

OOD of CIM

Possible

2nd . iteration

6b

System Testing

5b

Prototyping the CIM

**Calendar weeks**

**January February March April May**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

## APPENDIX 3 TASKS AND TIMING

3rd SG 24.4.2013

2nd SG 25.3.2013

4th SG 15.5.2013

1st SG25.1.2013

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  | **Total hours** | **xxxx** |  | | **Week number** | | | | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |
| **Task**  **num.** | **Task** | **Deliverable/ status** | **Starting criteria** | **Hours** | 3 | 4 | | 5 | 6 | 7 | 8 | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | |
| **1** | **Starting the project** | Approved project plan | Initiation | **30** |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 1.1 | Preparing the starting meeting | Agenda, finalized project plan |  |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 1.2 | Project starting meeting | Started project | Approved project plan |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 1.3 | Writing minutes of the meeting | Delivered minutes |  |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 1.4 | Kick-Off and its preparation | PT has clear understanding of the project | Project started |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| **2** | **Analysis of the Requirement Engineering results** | Prerequisites understood and accepted | Project started | **40** |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 2.1 | Checking the specifications | Changes listed |  |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 2.2 | Clearing the goals and objectives  Of the system | Clear understanding on own  Task and duties |  |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| **3** | **OOA of CIM** | OOA System Documentation | Prerequisites clear | **270** |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 3.1 | Defining Use Cases | General system specifications  Use Case Model |  |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 3.2 | Specifying Data to be stored | Class Models and Diagrams |  |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 3.3 | Analyzing Use Case Implementations and their information needs | Use Case Diagrams and Class Models |  |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 3.4 | Usability Development Process | Description of the Usability Process and Form for the Usability Test |  |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 3.5 | Finalizing OOA Documentation | Parameters and rules of functions |  |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| 3.6 | Review of OOA | Improved and corrected OOA Documentation | Complete OOA Documentation |  |  |  | |  |  |  |  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |

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| **Task**  **num.** | **Task** | **Deliverable/ status** | **Starting criteria** | **Hours** | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

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| **4** | **OOD of CIM** | OOA System Documentation | Approved OOA Documentation | **280** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.1 | User Interface Design | Page layouts and navigation, User Interface Style Guide |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.2 | Planning the testing | Plan for the Software Testing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.3 | Database Design | Logical Database Design |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.4 | Application Design | Software Architecture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.5 | Review | Improved and corrected OOD Documentation | Complete OOD Documentation |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5** | **Proto of CIM** | Completed OOD and  OOP Documentation | Approved OOD Documentation | **300** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5.1 | Creating the Database | Database |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5.2 | Implementing User Interface | GUI |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5.3 | Implementing application code | Application Code |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5.4 | Testing | Testing memos |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| **6** | **Testing** | Completed and tested system | Result of OOP | **90** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6.1 | Planning the testing | Test Plan and Test Data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6.2 | Testing activities | Testing minutes and documents |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6.3 | Correcting iterations | Corrected code | Tested CIM-system |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| **Task**  **num.** | **Task** | **Deliverable/ status** | **Starting criteria** | **Hours** | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 |  |

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| **7** | **Project Management** |  |  | **100** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7.1 | Managing project work | Weekly meeting minutes of meeting | Meeting schedule |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7.2 | Steering and reporting project status | Status reports and Steering Group meeting memos | Scheduled milestones |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7.3 | Steering Group meetings | Project Decisions | Scheduled in project plan |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7.4 | Preparing minutes of meeting | Delivered minutes of meeting |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **8** | **Closing the project** | Approved result and closed project | All goals reached | **30** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8.1 | Creating project report | Delivered project report | All goal reached |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8.2 | Preparing of the closing meeting | Agenda and project report delivered | Scheduled in project plan |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8.3 | Closing meeting | Approved results and closed project | All goals reached |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8.4 | Preparing the memo | Delivered memo |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |