| Group Number | Tuesday Tagus | Tuesday Alameda | Thursday Alameda | Friday Alameda |
|---|---|---|---|---|
| 2 | X | | | |

| Student Number | Student name |
|---|---|
| 84705 | Catarina Ferreira Custódio |
| 84719 | Gonçalo Alexandre Dias e Silva Marques |
| 87524 | Catarina Guerreiro Gomes Pedreira |
| 87675 | João Rafael Pinto Soares |

# Introduction

Our organization (**Tech Tics**) specializes in Enterprise Applications and has been active on the market since 2005. Our main goal as a company is to help other companies understand and act upon the market they're in, and we do that by developing ERP solutions that help companies become more nimble, productive and efficient.

We have developed Enterprise Applications (similar to the one requested) in the past, that were deployed to companies like MacroSoft and Peach, which were very happy with the result.

With this formal document, we are proposing to work with your organization, by helping to build the HR-Portal you presented to us. We are confident that we'll deliver a compelling final product that will benefit ISTRetail, improving its efficiency.

# Executive Summary

As we understand, this project aims to build a Human Resources Management Platform. The goals are that ISTRetail's Human Resources Department (HRD) administrative processes are more efficient than what they are at this moment and that the platform is easily managed by both the HRD and the employees', in order to reduce their difficulties with the current system and the HRD's administrative costs.

The **stakeholders** would be as following:

| **Stakeholder** | **Expectations** | **Criteria / metrics** |
|---|---|---|
| ISTRetail IT Staff | Integration and maintenance of the new platform with ISHR | Clear documentation |
| ISTRetail General Staff | Easier holiday and training scheduling | Internal poll |
| ISTRetail Top Management | Cost Reduction | Financial results board meeting |
| ISTRetail HRD management | Work and Staff reduction | Amount of laid off workers after solution installation |
| ISTRetail HRD Staff | Lower Workload | Internal poll |

Table 1 - Stakeholders

The project's intended **benefits** would be as following:

| **Benefit** | **Verification** |
|---|---|
| Reduction in the HRD effort on the procedures for the justification of absences and holiday marking | 50% reduction |
| Reduction of the HRD effort on the planning of training actions | 25% reduction |
| Turnover reduction, considering the overall satisfaction of employees' by: Fast dissemination of relevant information from the Organization to all employees' | 5% reduction |

Table 2 - Benefits

The project's **success criteria** and **factors** would be as following:

| **Criteria** | **Metric** |
|---|---|
| Deliver all the requested features on time | Deliver the project in 4 months after the project plan approval (+ 2 weeks tolerance) |
| Deliver the features within the budget | <= 200.000€ |
| Number of system's non-conformities during acceptance tests < 10% | < 10% |
| Time for system's non-conformities correction < 24 hours | < 24 hours |
| System training sessions evaluation > 3,75 | > 3,75 (0 to 5 scale) |

Table 3 - Success Criteria

| Factor | Responsible |
|---|---|
| Good management of the project's budget and progress | Project Manager |
| Effective training sessions for project usage | HR Specialist (training management) |
| Coordination of all the activities evolving HRD resources and definition of corporation information module functionalities | HRD Delegate |
| Easy to use application interfaces and well built IT infrastructures | Technical Coordinator |
| System's non-conformities do not surpass the boundaries set | IT Team (1 Programmer + 1 Infrastructures Specialist) |
| Consistency of the employees' records | HR Specialist (employees' records) |

Table 4 - Success Factors

This project's **price** will be 150,000€, and the project will be initiated on **02/12/2019** and terminated on **30/06/2020.**

# Project Scope

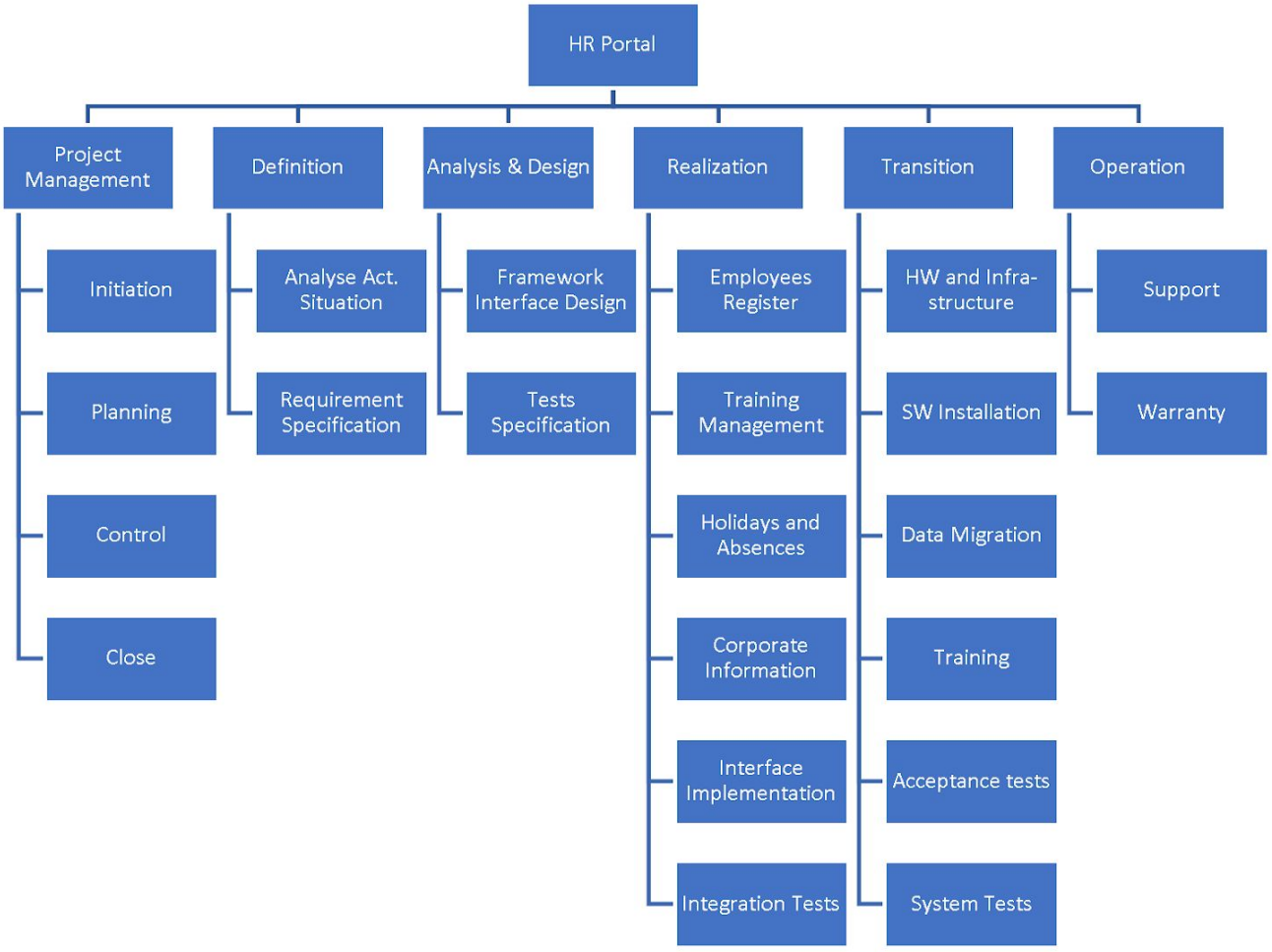


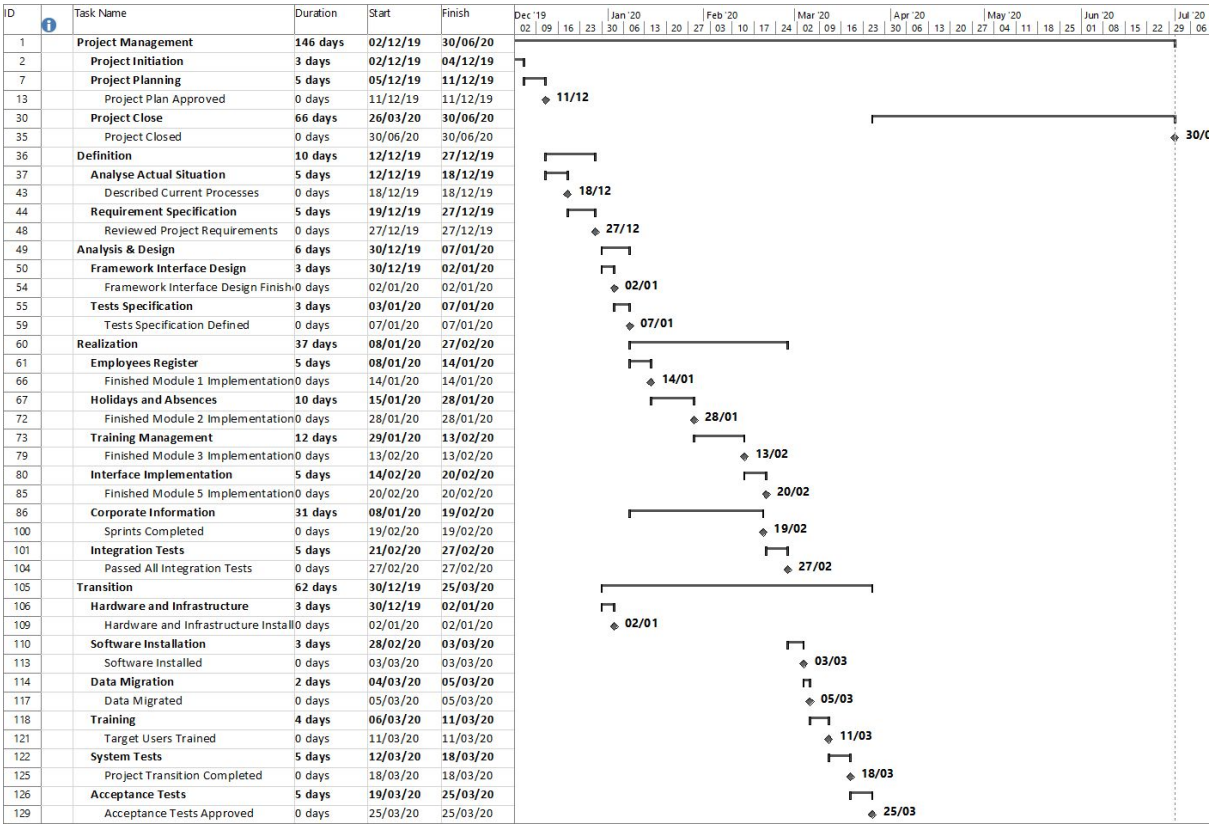

Figure 1 - Work Breakdown Structure

Within the Project Scope that we are proposing, this is the Work Breakdown Structure (WBS). The project is subdivided into six phases, each one split into work packages (see Figure 1). The deliverables for HR-Portal are:

- Project Plan
- Requirements Specifications
- HR-Portal System
- Technical Document describing the System

# Project Schedule

- **Gantt Chart**



| ID | Task Name | Duration | Start | Finish |
|---|---|---|---|---|
| 1 | **Project Management** | **146 days** | **02/12/19** | **30/06/20** |
| 2 | **Project Initiation** | **3 days** | **02/12/19** | **04/12/19** |
| 7 | **Project Planning** | **5 days** | **05/12/19** | **11/12/19** |
| 13 | Project Plan Approved | 0 days | 11/12/19 | 11/12/19 |
| 30 | **Project Close** | **66 days** | **26/03/20** | **30/06/20** |
| 35 | Project Closed | 0 days | 30/06/20 | 30/06/20 |
| 36 | **Definition** | **10 days** | **12/12/19** | **27/12/19** |
| 37 | **Analyse Actual Situation** | **5 days** | **12/12/19** | **18/12/19** |
| 43 | Described Current Processes | 0 days | 18/12/19 | 18/12/19 |
| 44 | **Requirement Specification** | **5 days** | **19/12/19** | **27/12/19** |
| 48 | Reviewed Project Requirements | 0 days | 27/12/19 | 27/12/19 |
| 49 | **Analysis & Design** | **6 days** | **30/12/19** | **07/01/20** |
| 50 | **Framework Interface Design** | **3 days** | **30/12/19** | **02/01/20** |
| 54 | Framework Interface Design Finish | 0 days | 02/01/20 | 02/01/20 |
| 55 | **Tests Specification** | **3 days** | **03/01/20** | **07/01/20** |
| 59 | Tests Specification Defined | 0 days | 07/01/20 | 07/01/20 |
| 60 | **Realization** | **37 days** | **08/01/20** | **27/02/20** |
| 61 | **Employees Register** | **5 days** | **08/01/20** | **14/01/20** |
| 66 | Finished Module 1 Implementation | 0 days | 14/01/20 | 14/01/20 |
| 67 | **Holidays and Absences** | **10 days** | **15/01/20** | **28/01/20** |
| 72 | Finished Module 2 Implementation | 0 days | 28/01/20 | 28/01/20 |
| 73 | **Training Management** | **12 days** | **29/01/20** | **13/02/20** |
| 79 | Finished Module 3 Implementation | 0 days | 13/02/20 | 13/02/20 |
| 80 | **Interface Implementation** | **5 days** | **14/02/20** | **20/02/20** |
| 85 | Finished Module 5 Implementation | 0 days | 20/02/20 | 20/02/20 |
| 86 | **Corporate Information** | **31 days** | **08/01/20** | **19/02/20** |
| 100 | Sprints Completed | 0 days | 19/02/20 | 19/02/20 |
| 101 | **Integration Tests** | **5 days** | **21/02/20** | **27/02/20** |
| 104 | Passed All Integration Tests | 0 days | 27/02/20 | 27/02/20 |
| 105 | **Transition** | **62 days** | **30/12/19** | **25/03/20** |
| 106 | **Hardware and Infrastructure** | **3 days** | **30/12/19** | **02/01/20** |
| 109 | Hardware and Infrastructure Install | 0 days | 02/01/20 | 02/01/20 |
| 110 | **Software Installation** | **3 days** | **28/02/20** | **03/03/20** |
| 113 | Software Installed | 0 days | 03/03/20 | 03/03/20 |
| 114 | **Data Migration** | **2 days** | **04/03/20** | **05/03/20** |
| 117 | Data Migrated | 0 days | 05/03/20 | 05/03/20 |
| 118 | **Training** | **4 days** | **06/03/20** | **11/03/20** |
| 121 | Target Users Trained | 0 days | 11/03/20 | 11/03/20 |
| 122 | **System Tests** | **5 days** | **12/03/20** | **18/03/20** |
| 125 | Project Transition Completed | 0 days | 18/03/20 | 18/03/20 |
| 126 | **Acceptance Tests** | **5 days** | **19/03/20** | **25/03/20** |
| 129 | Acceptance Tests Approved | 0 days | 25/03/20 | 25/03/20 |



Figure 2 - Gantt Chart with work packages and milestones

The Gantt Chart that our team produced is presented above. It shows the milestones for all work packages (except for Control and Warranty packages, which don't have one).

# Project Organization, Communication and Resources

- **Organizational Breakdown Structure**

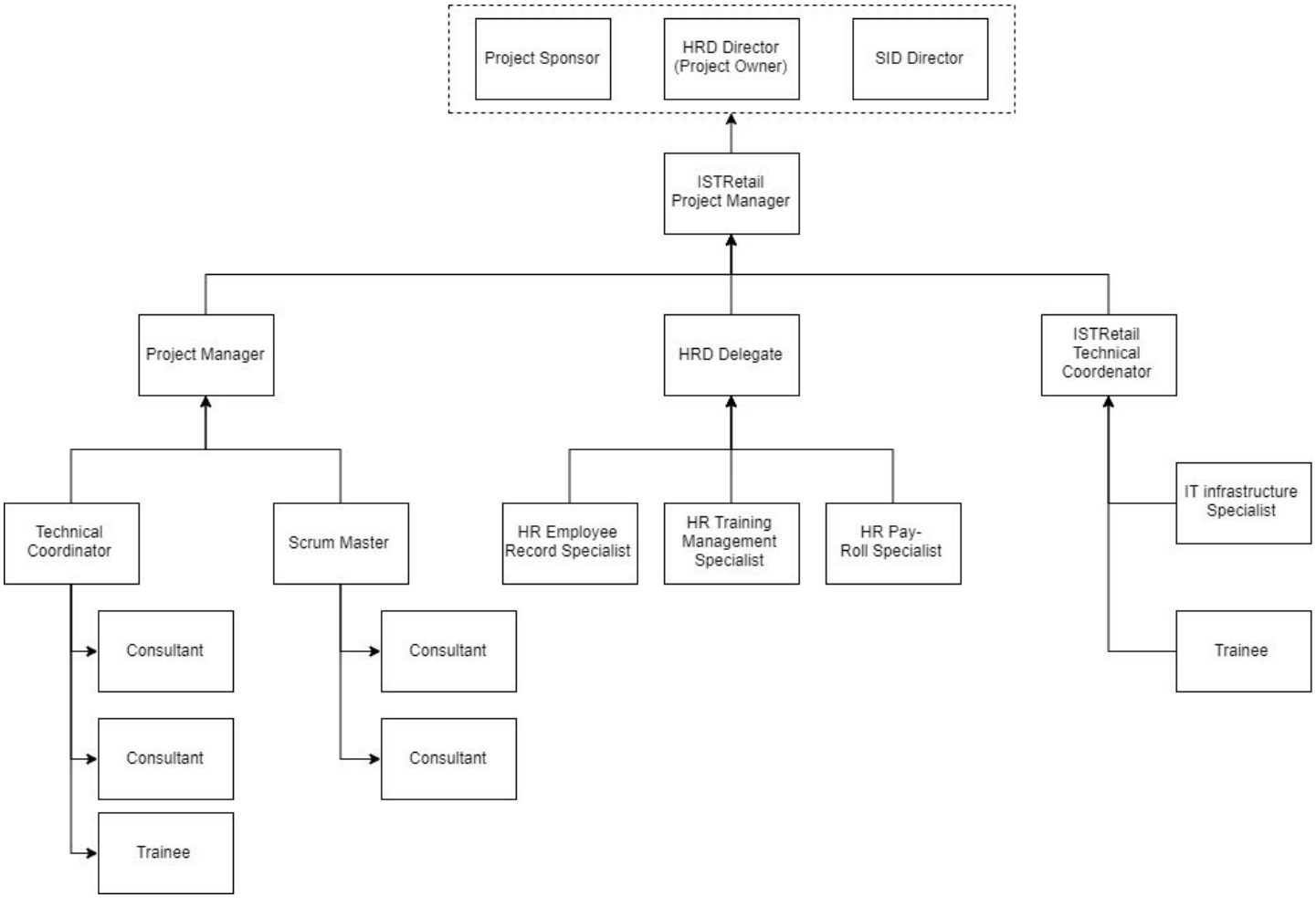



Figure 3 - Organization Breakdown Structure

This is the Organizational Breakdown Structure (OBS) that we created, based on all the teams that will be working in this project. The OBS helps to identify each Human Resource's role in the project, and who he reports work to.

- **Responsibility Matrix**

| | Project Sponsor | HRD Director (Project Owner) | SID Director | ISTRetail Project Manager | Project Manager | Techinal Coordinator | Scrum Master | HRD Delegate | ISTRetail Technical Coordinator |
|---|---|---|---|---|---|---|---|---|---|
| Project Initiation | d | D | d | XP | C | A | A | C | C |
| Project Planning | | I | | XP | C | C | C | C | C |
| Project Control | | I | | XP | C | | | | |
| Project Close | d | D | d | XP | C | A | A | C | C |
| Analyse Actual Situation | I | I | | P | C | X | A | C | C |
| Requirement Specification | d | D | d | P | C | X | A | C | C |
| Framework Interface Design | | | | C | P | C | | | X |
| Tests Specification | | | | C | P | X | | | C |
| Employees' Register Module | | | | C | P | X | | C | |
| Holidays and Absences Module | | | | C | P | X | | C | |
| Training Management Module | | | | C | P | X | | C | |
| Corporate Information Module | | | | C | P | | X | D | |
| Interface Implementation Module | | | | C | P | | | | X |
| Integration Tests | | | | C | P | X | C | C | |
| Hardware and Infrastructure | | | | C | P | | | | X |
| Software Installation | | | | C | P | X | | | |
| Data Migration | | | P | C | C | X | | | |
| Training | | | | C | P | X | | C | |
| Acceptance Tests | | D | d | C | P | X | | | |
| System Tests | | D | d | C | P | X | | | |
| Support | | | | P | C | X | | | |
| Warranty | | | | C | P | X | | | |

Figure 4 - Responsibility Matrix

Based on both the WBS and the OBS (see figures 1 and 3), we built the Responsibility Matrix (RAM) that shows, for each Human Resource and for each activity, what is his/her responsibility for that activity.

The meaning of each letter of the RAM is:

- X - Executes the work
- D - Takes the decision (solely or ultimately)
- D - Takes the decision (jointly or partly)
- P - Controls Progress
- T - Provides Tuition
- I - Must be informed
- C - Must be consulted
- A - Available to advise

- **Communication Plan**

| From | To | What | When | How |
|---|---|---|---|---|
| Project Manager | Project Sponsor, HRD Director, SID Director | Project Plan | After Project Plan Review | Meeting |
| Technical Coordinator | ISTRetail PM, PM, Steering | Requirement Specifications | After Requirement Specifications | Mail |
| Technical Coordinator | ISTRetail PM | Technical Document | Objective Revision/Closing | Close Meeting |
| ISTRetail Project Manager | Project Sponsor, HRD Director, SID Director | Status Report | Every Week | Mail |
| ISTRetail Project Manager | Project Manager, HRD Delegate, ISTRetail Technical Coordinator | Work Attribution | Every Week | Mail |
| Project Manager | Scrum Master, Technical Coordinator | Work Attribution | Every Week | Mail |
| Project Manager, HRD Delegate, ISTRetail Technical Coordinator | ISTRetail Project Manager | Progress Report | Every Week | Mail |
| Scrum Master, Technical Coordinator | Project Manager | Progress Report | Every Week | Mail |

Table 5 - Communication Flow

Based on each formal communication during the project, we built the communication flow (see Table 5). For each of the communications, the table specifies the Human Resources involved, what is being communicated, when does this communication happen (or how often if it happens more than once), and how it is transmitted.

| Meeting Type | Who | When |
|---|---|---|
| Kick-Off Meeting | Everyone | Project Planning |
| Steering | Project Sponsor, HRD Director, SID Director, ISTRetail Project Manager | Every 2 weeks |
| Progress | ISTRetail Project Manager, Project Manager, HRD Delegate, ISTRetail Technical Coordinator | Every week |
| Progress | Project Manager, Scrum Master, Technical Coordinator | Every week |
| SCRUM Backlog | Project Manager, Scrum Master | Beginning of SCRUM |
| SCRUM Planning | HR Delegate, Scrum Master + Team members | Every two weeks |
| SCRUM Daily | Scrum Master + Team Members | Every day |
| SCRUM Review/Retrospective | HR Delegate, Scrum Master + Team members | After each Sprint |
| Objective Revision/Closing | HR Delegate, Scrum Master + Team members | End of the Project |

Table 6 - Meetings table

The meetings table has a list of all the meetings that will occur during the project. It also has the information of who will participate in each meeting, and when that meeting occurs.

# Project Risks

| Risk | Description | Assumptions | Probability | | | | | Consequences | | | | | Probability/Consequences | Treatment | | Risk |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Risk | | | VL | L | M | H | VH | VL | L | M | H | VH | Justification | Type | Measure(s) | Owner |
| Risk | Interface Integration setbacks | ISHR system is a blackbox with little information about it | | | X | | | | X | | | | Because of the blackbox nature of the ISHR system, it is likely that unexpected problems will be found while integrating our interface, which can lead to a delay of the work package | Mitigation | Ask for documentation or more information regarding the ISHR system | Tech Tics |
| Risk | HRD Emplloyees not cooperating due to unhapiness | HRD employees were unmotivated due to the recent news of change | | X | | | | | | | X | | The making of this new system can lead to some workers to be cut from the client company. This can raise the unhapiness of the HRD employees leading to some uncooperation from their part, delaying our work which involves their cooperation | Deflection | Let the client negotiate with its employees | Client |
| Risk | HRD Delegate leaving the project | HRD Delegate has recieved na offer from another company | | | X | | | | | | X | | The HRD Delegate is a very important piece of our project, as he will be not only be our main consultant from the client side as he will also decide on the Corporate Information Module functionalities. If his departure happens on the early stages of the project, it will majorly delay our schedule | Deflection | Let the client negotiate with the HRD Delegate; Have another person ready to take over in case of his departure. | Client |
| Risk | Bad quality of data to be migrated | Experience tells us this kinds of files do not have a global standart applied to them | | | | X | | | X | | | | Our team will need to create scripts in order to migrate the existing Excell files from the old system to our new system. If these files do not have a standart we would need to create multiple scripts or change them by hand, greatly increasing the work load. | Mitigation | Add an allowance of 2 days in case the data is not on a standart and we need to change or create extra scripts | Client |
| Risk | Technical Coordenator leaving the project | Technical Coordenator has been working in the company for a long time and is looking for different challenges | | | X | | | | | | | X | Our Technical Coordenator is involved in 82% of all work packages and executes 64% of these. His departure would cause disastrous effects on our project with inumerous delays on the workflow. | Contingenc y | Have another person monitoring the project and be ready to takeover in case of his departure. | Tech Tics |
| 6 | Machines not arriving on time and/or in conditions | Hardware may not be available on the expected time | | X | | | | | X | | | | If the arrival date or good state of the machines is not assured it can cause some delays on the project | Mitigation | Remind and warn the client to obtain and check the machines in advance | Tech Tics |

Table 7 - Risk Register

The Risk Register presented in Table 7 (see above) conveys the main risks that were identified for HR-Portal, and evaluates its probability and consequence, as well as proposing an approach on how to deal with it.

# Price and Supplier Conditions

The total price of all services will sum up to 150,000€. When certain milestones of the project are achieved, a percentage of the payment (invoice) is to be delivered. The following table maps each invoice to each month (M1 to M7).

| | M1 | M2 | M3 | M4 | M5 | M6 | M7 |
|---|---|---|---|---|---|---|---|
| **Invoices** | 20,00% | 0,00% | 0,00% | 50,00% | 0,00% | 0,00% | 30,00% |
| **Value** | € 30 000,00 | € 0,00 | € 0,00 | € 75 000,00 | € 0,00 | € 0,00 | € 45 000,00 |

Table 8 - Invoice plan

The invoicing is done according to the invoice plan, with the maximum deadline of two weeks. To the values presented add the VAT at the legal rate in force.

# Appendix

- **List with resources-allocation**

| ID | Task Mode | Task Name | Work | Duration | ID | Assignment Units |
|---|---|---|---|---|---|---|
| 1 | | **Project Management** | **68 days** | **146 days** | **1** | |
| 2 | | **Project Initiation** | **9 days** | **3 days** | **2** | |
| 3 | | Review Project Charter | 3,5 days | 1 day | 3 | |
| | | *Project Sponsor* | *0,5 days* | | | *50%* |
| | | *HRD Director* | *0,5 days* | | | *50%* |
| | | *SID Director* | *0,5 days* | | | *50%* |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 4 | | Review Stakeholders Identification | 3,5 days | 1 day | 4 | |
| | | *Project Sponsor* | *0,5 days* | | | *50%* |
| | | *HRD Director* | *0,5 days* | | | *50%* |
| | | *SID Director* | *0,5 days* | | | *50%* |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 5 | | Establish Project Team | 2 days | 1 day | 5 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 6 | | Project Started | 0 days | 0 days | 6 | |
| 7 | | **Project Planning** | **17 days** | **5 days** | **7** | |
| 8 | | Review Project Scope and Time | 2 days | 1 day | 8 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 9 | | Define Project Organization | 2 days | 1 day | 9 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 10 | | Define Communication plan | 2 days | 1 day | 10 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 11 | | Review Project Plan | 2 days | 1 day | 11 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 12 | | Kick-off Meeting | 9 days | 1 day | 12 | |
| | | *Project Sponsor* | *1 day* | | | *100%* |
| | | *HRD Director* | *1 day* | | | *100%* |
| | | *SID Director* | *1 day* | | | *100%* |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *HRD Delegate* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| 13 | | Project Plan Approved | 0 days | 0 days | 13 | |
| 14 | | **Control** | **30 days** | **68 days** | **14** | |
| 15 | | Control 1 | 2 days | 1 day | 15 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 16 | | Control 2 | 2 days | 1 day | 16 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 17 | | Control 3 | 2 days | 1 day | 17 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 18 | | Control 4 | 2 days | 1 day | 18 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 19 | | Control 5 | 2 days | 1 day | 19 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 20 | | Control 6 | 2 days | 1 day | 20 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 21 | | Control 7 | 2 days | 1 day | 21 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |

| ID | Task Mode | Task Name | Work | Duration | ID | Assignment Units |
|---|---|---|---|---|---|---|
| | | *Project Manager* | *1 day* | | | *100%* |
| 22 | | Control 8 | 2 days | 1 day | 22 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 23 | | Control 9 | 2 days | 1 day | 23 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 24 | | Control 10 | 2 days | 1 day | 24 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 25 | | Control 11 | 2 days | 1 day | 25 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 26 | | Control 12 | 2 days | 1 day | 26 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 27 | | Control 13 | 2 days | 1 day | 27 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 28 | | Control 14 | 2 days | 1 day | 28 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 29 | | Control 15 | 2 days | 1 day | 29 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 30 | | **Project Close** | **12 days** | **66 days** | **30** | |
| 31 | | Review Project Objectives | 6 days | 1 day | 31 | |
| | | *Project Sponsor* | *0,5 days* | | | *50%* |
| | | *HRD Director* | *0,5 days* | | | *50%* |
| | | *SID Director* | *0,5 days* | | | *50%* |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| | | *Technical Coordinator* | *0,5 days* | | | *50%* |
| | | *HRD Delegate* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| 32 | | Collect Lessons Learned | 2 days | 1 day | 32 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 33 | | Provide Feedback | 2 days | 1 day | 33 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 34 | | Close Contracts | 2 days | 1 day | 34 | |
| | | *ISTRetail Project Manager* | *1 day* | | | *100%* |
| | | *Project Manager* | *1 day* | | | *100%* |
| 35 | | Project Closed | 0 days | 0 days | 35 | |
| 36 | | **Definition** | **24 days** | **10 days** | **36** | |
| 37 | | **Analyse Actual Situation** | **11 days** | **5 days** | **37** | |
| 38 | | Describe processes for Employees Register | 2 days | 1 day | 38 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *HR Employee Record Specialist* | *1 day* | | | *100%* |
| 39 | | Describe processes for Holidays and Absences | 2 days | 1 day | 39 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *HR Payroll Specialist* | *1 day* | | | *100%* |
| 40 | | Describe processes for Training Management | 2 days | 1 day | 40 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *HR Training Management Specialist* | *1 day* | | | *100%* |
| 41 | | Describe processes for Interface Implementation | 2 days | 1 day | 41 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| 42 | | Describe processes for Corporate Information | 3 days | 1 day | 42 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *HRD Delegate* | *1 day* | | | *100%* |

| ID | Task Mode | Task Name | Work | Duration | ID | Assignment Units |
|---|---|---|---|---|---|---|
| 43 | | Described Current Processes | 0 days | 0 days | 43 | |
| 44 | | **Requirement Specification** | **13 days** | **5 days** | **44** | |
| 45 | | Gap Analysis For Each Module | 6 days | 3 days | 45 | |
| | | *Technical Coordinator* | *3 days* | | | *100%* |
| | | *HRD Delegate* | *3 days* | | | *100%* |
| 46 | | Identify Parameters That Will Be Used For Each Module | 2 days | 1 day | 46 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *HRD Delegate* | *1 day* | | | *100%* |
| 47 | | Review project requirements | 5 days | 1 day | 47 | |
| | | *HRD Director* | *0,5 days* | | | *50%* |
| | | *SID Director* | *0,5 days* | | | *50%* |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *HRD Delegate* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| 48 | | Reviewed Project Requirements | 0 days | 0 days | 48 | |
| 49 | | **Analysis & Design** | **13,5 days** | **6 days** | **49** | |
| 50 | | **Framework Interface Design** | **6,5 days** | **3 days** | **50** | |
| 51 | | Design the WebService | 1,5 days | 1 day | 51 | |
| | | *ISTRetail Technical Coordinator* | *0,5 days* | | | *50%* |
| | | *Trainee (ISTRetail)* | *1 day* | | | *100%* |
| 52 | | Design Interface To Access Employees' Data | 2,5 days | 1 day | 52 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *0,5 days* | | | *50%* |
| | | *Trainee (ISTRetail)* | *1 day* | | | *100%* |
| 53 | | Design Interface To Access Employees' Salary | 2,5 days | 1 day | 53 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *0,5 days* | | | *50%* |
| | | *Trainee (ISTRetail)* | *1 day* | | | *100%* |
| 54 | | Framework Interface Design Finished | 0 days | 0 days | 54 | |
| 55 | | **Tests Specification** | **7 days** | **3 days** | **55** | |
| 56 | | Define Integration Tests | 3 days | 1 day | 56 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| 57 | | Define System tests | 2 days | 1 day | 57 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| 58 | | Define Acceptance Tests | 2 days | 1 day | 58 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *HRD Delegate* | *1 day* | | | *100%* |
| 59 | | Tests Specification Defined | 0 days | 0 days | 59 | |
| 60 | | **Realization** | **256 days** | **37 days** | **60** | |
| 61 | | **Employees Register** | **16,5 days** | **5 days** | **61** | |
| 62 | | Parametrize The Module | 1,5 days | 1 day | 62 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *HRD Delegate* | *0,5 days* | | | *50%* |
| 63 | | Implement New Requirements | 8 days | 2 days | 63 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *Consultant 1 (TC)* | *2 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *2 days* | | | *100%* |
| | | *Trainee* | *2 days* | | | *100%* |
| 64 | | Implement Profile Configuration | 4 days | 1 day | 64 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *Consultant 1 (TC)* | *1 day* | | | *100%* |
| | | *Consultant 2 (TC)* | *1 day* | | | *100%* |
| | | *Trainee* | *1 day* | | | *100%* |
| 65 | | Test The Implementation | 3 days | 1 day | 65 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *Consultant 1 (TC)* | *1 day* | | | *100%* |
| | | *Trainee* | *1 day* | | | *100%* |
| 66 | | Finished Module 1 Implementation | 0 days | 0 days | 66 | |
| 67 | | **Holidays and Absences** | **34 days** | **10 days** | **67** | |

| ID | Task Mode | Task Name | Work | Duration | ID | Assignment Units |
|---|---|---|---|---|---|---|
| 68 | | Parametrize The Module | 4 days | 2 days | 68 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *HRD Delegate* | *2 days* | | | *100%* |
| 69 | | Implement New Requirements | 16 days | 4 days | 69 | |
| | | *Technical Coordinator* | *4 days* | | | *100%* |
| | | *Consultant 1 (TC)* | *4 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *4 days* | | | *100%* |
| | | *Trainee* | *4 days* | | | *100%* |
| 70 | | Implement Profile Configuration | 8 days | 2 days | 70 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *Consultant 1 (TC)* | *2 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *2 days* | | | *100%* |
| | | *Trainee* | *2 days* | | | *100%* |
| 71 | | Test The Implementation | 6 days | 2 days | 71 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *2 days* | | | *100%* |
| | | *Trainee* | *2 days* | | | *100%* |
| 72 | | Finished Module 2 Implementation | 0 days | 0 days | 72 | |
| 73 | | **Training Management** | **42 days** | **12 days** | **73** | |
| 74 | | Parametrize The Module | 4 days | 2 days | 74 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *HRD Delegate* | *2 days* | | | *100%* |
| 75 | | Implement New Requirements | 16 days | 4 days | 75 | |
| | | *Technical Coordinator* | *4 days* | | | *100%* |
| | | *Consultant 1 (TC)* | *4 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *4 days* | | | *100%* |
| | | *Trainee* | *4 days* | | | *100%* |
| 76 | | Create Script For Data Migration | 8 days | 2 days | 76 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *Consultant 1 (TC)* | *2 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *2 days* | | | *100%* |
| | | *Trainee* | *2 days* | | | *100%* |
| 77 | | Allowance | 8 days | 2 days | 77 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *Consultant 1 (TC)* | *2 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *2 days* | | | *100%* |
| | | *Trainee* | *2 days* | | | *100%* |
| 78 | | Test The Implementation | 6 days | 2 days | 78 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *Consultant 1 (TC)* | *2 days* | | | *100%* |
| | | *Trainee* | *2 days* | | | *100%* |
| 79 | | Finished Module 3 Implementation | 0 days | 0 days | 79 | |
| 80 | | **Interface Implementation** | **17 days** | **5 days** | **80** | |
| 81 | | Implement the WebService | 3 days | 1 day | 81 | |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| | | *IT Infrastructure Specialist* | *1 day* | | | *100%* |
| | | *Trainee (ISTRetail)* | *1 day* | | | *100%* |
| 82 | | Implement the interface to access employees' Data | 4 days | 1 day | 82 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| | | *IT Infrastructure Specialist* | *1 day* | | | *100%* |
| | | *Trainee (ISTRetail)* | *1 day* | | | *100%* |
| 83 | | Implement the interface to access employees' Salaries | 4 days | 1 day | 83 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| | | *IT Infrastructure Specialist* | *1 day* | | | *100%* |
| | | *Trainee (ISTRetail)* | *1 day* | | | *100%* |
| 84 | | Test The Implementation | 6 days | 2 days | 84 | |
| | | *ISTRetail Technical Coordinator* | *2 days* | | | *100%* |
| | | *IT Infrastructure Specialist* | *2 days* | | | *100%* |
| | | *Trainee (ISTRetail)* | *2 days* | | | *100%* |
| 85 | | Finished Module 5 Implementation | 0 days | 0 days | 85 | |
| 86 | | **Corporate Information** | **91,5 days** | **31 days** | **86** | |

| ID | Task Mode | Task Name | Work | Duration | ID | Assignment Units |
|---|---|---|---|---|---|---|
| 87 | | Create Backlog | 1,5 days | 1 day | 87 | |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *HRD Delegate* | *0,5 days* | | | *50%* |
| 88 | | **Sprint 1** | **30 days** | **10 days** | **88** | |
| 89 | | Plan The Sprint | 3 days | 1 day | 89 | |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *Consultant 1 (SM)* | *1 day* | | | *100%* |
| | | *Consultant 2 (SM)* | *1 day* | | | *100%* |
| 90 | | Realize The Sprint | 24 days | 8 days | 90 | |
| | | *Scrum Master* | *8 days* | | | *100%* |
| | | *Consultant 1 (SM)* | *8 days* | | | *100%* |
| | | *Consultant 2 (SM)* | *8 days* | | | *100%* |
| 91 | | Review The Results | 3 days | 1 day | 91 | |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *Consultant 1 (SM)* | *1 day* | | | *100%* |
| | | *Consultant 2 (SM)* | *1 day* | | | *100%* |
| 92 | | **Sprint 2** | **30 days** | **10 days** | **92** | |
| 93 | | Plan The Sprint | 3 days | 1 day | 93 | |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *Consultant 1 (SM)* | *1 day* | | | *100%* |
| | | *Consultant 2 (SM)* | *1 day* | | | *100%* |
| 94 | | Realize The Sprint | 24 days | 8 days | 94 | |
| | | *Scrum Master* | *8 days* | | | *100%* |
| | | *Consultant 1 (SM)* | *8 days* | | | *100%* |
| | | *Consultant 2 (SM)* | *8 days* | | | *100%* |
| 95 | | Review The Results | 3 days | 1 day | 95 | |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *Consultant 1 (SM)* | *1 day* | | | *100%* |
| | | *Consultant 2 (SM)* | *1 day* | | | *100%* |
| 96 | | **Sprint 3** | **30 days** | **10 days** | **96** | |
| 97 | | Plan The Sprint | 3 days | 1 day | 97 | |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *Consultant 1 (SM)* | *1 day* | | | *100%* |
| | | *Consultant 2 (SM)* | *1 day* | | | *100%* |
| 98 | | Realize The Sprint | 24 days | 8 days | 98 | |
| | | *Scrum Master* | *8 days* | | | *100%* |
| | | *Consultant 1 (SM)* | *8 days* | | | *100%* |
| | | *Consultant 2 (SM)* | *8 days* | | | *100%* |
| 99 | | Review The Results | 3 days | 1 day | 99 | |
| | | *Scrum Master* | *1 day* | | | *100%* |
| | | *Consultant 1 (SM)* | *1 day* | | | *100%* |
| | | *Consultant 2 (SM)* | *1 day* | | | *100%* |
| 100 | | Sprints Completed | 0 days | 0 days | 100 | |
| 101 | | **Integration Tests** | **55 days** | **5 days** | **101** | |
| 102 | | Integration Test Every Module | 30 days | 5 days | 102 | |
| | | *Technical Coordinator* | *2,5 days* | | | *50%* |
| | | *Scrum Master* | *2,5 days* | | | *50%* |
| | | *HRD Delegate* | *5 days* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *2,5 days* | | | *50%* |
| | | *Consultant 1 (TC)* | *2,5 days* | | | *50%* |
| | | *Consultant 2 (TC)* | *2,5 days* | | | *50%* |
| | | *Consultant 1 (SM)* | *2,5 days* | | | *50%* |
| | | *Consultant 2 (SM)* | *2,5 days* | | | *50%* |
| | | *Trainee* | *2,5 days* | | | *50%* |
| | | *IT Infrastructure Specialist* | *2,5 days* | | | *50%* |
| | | *Trainee (ISTRetail)* | *2,5 days* | | | *50%* |
| 103 | | Fix Bugs | 25 days | 5 days | 103 | |
| | | *Technical Coordinator* | *2,5 days* | | | *50%* |
| | | *Scrum Master* | *2,5 days* | | | *50%* |
| | | *ISTRetail Technical Coordinator* | *2,5 days* | | | *50%* |
| | | *Consultant 1 (TC)* | *2,5 days* | | | *50%* |
| | | *Consultant 2 (TC)* | *2,5 days* | | | *50%* |
| | | *Consultant 1 (SM)* | *2,5 days* | | | *50%* |

| ID | Task Mode | Task Name | Work | Duration | ID | Assignment Units |
|---|---|---|---|---|---|---|
| | | *Consultant 2 (SM)* | *2,5 days* | | | *50%* |
| | | *Trainee* | *2,5 days* | | | *50%* |
| | | *IT Infrastructure Specialist* | *2,5 days* | | | *50%* |
| | | *Trainee (ISTRetail)* | *2,5 days* | | | *50%* |
| 104 | | Passed All Integration Tests | 0 days | 0 days | 104 | |
| 105 | | **Transition** | **154,5 days** | **62 days** | **105** | |
| 106 | | **Hardware and Infrastructure** | **4,5 days** | **3 days** | **106** | |
| 107 | | Planning of the setup | 1,5 days | 1 day | 107 | |
| | | *ISTRetail Technical Coordinator* | *0,5 days* | | | *50%* |
| | | *IT Infrastructure Specialist* | *1 day* | | | *100%* |
| 108 | | Setup of Hardware and Infrastructure | 3 days | 2 days | 108 | |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *50%* |
| | | *IT Infrastructure Specialist* | *2 days* | | | *100%* |
| 109 | | Hardware and Infrastructure Installed | 0 days | 0 days | 109 | |
| 110 | | **Software Installation** | **9 days** | **3 days** | **110** | |
| 111 | | Preparation of the environment for Installation | 3 days | 1 day | 111 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| | | *Consultant 1 (TC)* | *1 day* | | | *100%* |
| 112 | | Installation of Software | 6 days | 2 days | 112 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *2 days* | | | *100%* |
| | | *Consultant 1 (TC)* | *2 days* | | | *100%* |
| 113 | | Software Installed | 0 days | 0 days | 113 | |
| 114 | | **Data Migration** | **10 days** | **2 days** | **114** | |
| 115 | | Prepare the system to receive training data | 5 days | 1 day | 115 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| | | *Consultant 1 (TC)* | *1 day* | | | *100%* |
| | | *Consultant 2 (TC)* | *1 day* | | | *100%* |
| | | *Trainee* | *1 day* | | | *100%* |
| 116 | | Migrate training information to the system | 5 days | 1 day | 116 | |
| | | *Technical Coordinator* | *1 day* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *1 day* | | | *100%* |
| | | *Consultant 1 (TC)* | *1 day* | | | *100%* |
| | | *Consultant 2 (TC)* | *1 day* | | | *100%* |
| | | *Trainee* | *1 day* | | | *100%* |
| 117 | | Data Migrated | 0 days | 0 days | 117 | |
| 118 | | **Training** | **10 days** | **4 days** | **118** | |
| 119 | | Train The HRD Staff To Use The Software | 6 days | 2 days | 119 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *HRD Delegate* | *2 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *2 days* | | | *100%* |
| 120 | | Train The DSI Staff To Use The Software | 4 days | 2 days | 120 | |
| | | *Technical Coordinator* | *2 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *2 days* | | | *100%* |
| 121 | | Target Users Trained | 0 days | 0 days | 121 | |
| 122 | | **System Tests** | **50 days** | **5 days** | **122** | |
| 123 | | Run System Tests | 15 days | 5 days | 123 | |
| | | *ISTRetail Technical Coordinator* | *5 days* | | | *100%* |
| | | *IT Infrastructure Specialist* | *5 days* | | | *100%* |
| | | *Trainee (ISTRetail)* | *5 days* | | | *100%* |
| 124 | | Fix Bugs | 35 days | 5 days | 124 | |
| | | *Technical Coordinator* | *5 days* | | | *100%* |
| | | *Scrum Master* | *5 days* | | | *100%* |
| | | *Consultant 1 (TC)* | *5 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *5 days* | | | *100%* |
| | | *Consultant 1 (SM)* | *5 days* | | | *100%* |
| | | *Consultant 2 (SM)* | *5 days* | | | *100%* |
| | | *Trainee* | *5 days* | | | *100%* |
| 125 | | Project Transition Completed | 0 days | 0 days | 125 | |
| 126 | | **Acceptance Tests** | **71 days** | **5 days** | **126** | |
| 127 | | Run Acceptance Tests | 21 days | 5 days | 127 | |

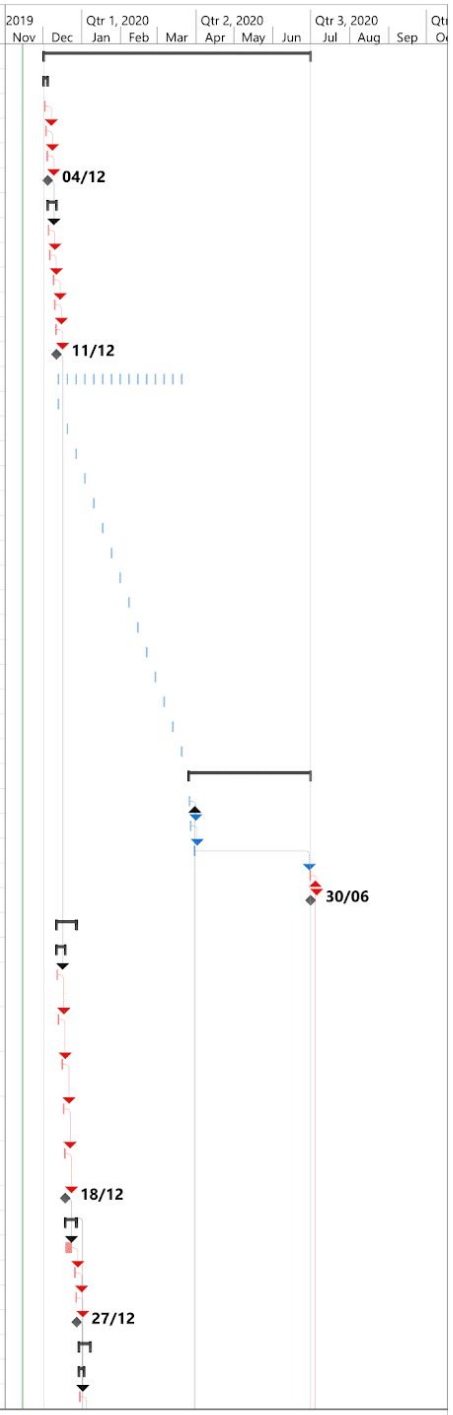
| ID | Task Mode | Task Name | Work | Duration | ID | Assignment Units |
|---|---|---|---|---|---|---|
| | | *HRD Director* | *0,5 days* | | | *10%* |
| | | *SID Director* | *0,5 days* | | | *10%* |
| | | *HRD Delegate* | *5 days* | | | *100%* |
| | | *HR Employee Record Specialist* | *5 days* | | | *100%* |
| | | *HR Training Management Specialist* | *5 days* | | | *100%* |
| | | *HR Payroll Specialist* | *5 days* | | | *100%* |
| 128 | | Fix Bugs | 50 days | 5 days | 128 | |
| | | *Technical Coordinator* | *5 days* | | | *100%* |
| | | *Scrum Master* | *5 days* | | | *100%* |
| | | *ISTRetail Technical Coordinator* | *5 days* | | | *100%* |
| | | *Consultant 1 (TC)* | *5 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *5 days* | | | *100%* |
| | | *Consultant 1 (SM)* | *5 days* | | | *100%* |
| | | *Consultant 2 (SM)* | *5 days* | | | *100%* |
| | | *Trainee* | *5 days* | | | *100%* |
| | | *IT Infrastructure Specialist* | *5 days* | | | *100%* |
| | | *Trainee (ISTRetail)* | *5 days* | | | *100%* |
| 129 | | Acceptance Tests Approved | 0 days | 0 days | 129 | |
| 130 | | **Operation** | **23,5 days** | **65 days** | **130** | |
| 131 | | Support | 17,5 days | 1 wk | 131 | |
| | | *Technical Coordinator* | *2,5 days* | | | *50%* |
| | | *Consultant 1 (TC)* | *5 days* | | | *100%* |
| | | *Consultant 2 (TC)* | *5 days* | | | *100%* |
| | | *Trainee* | *5 days* | | | *100%* |
| 132 | | Warranty | 6 days | 3 mons | 132 | |
| | | *Technical Coordinator* | *6 days* | | | *10%* |



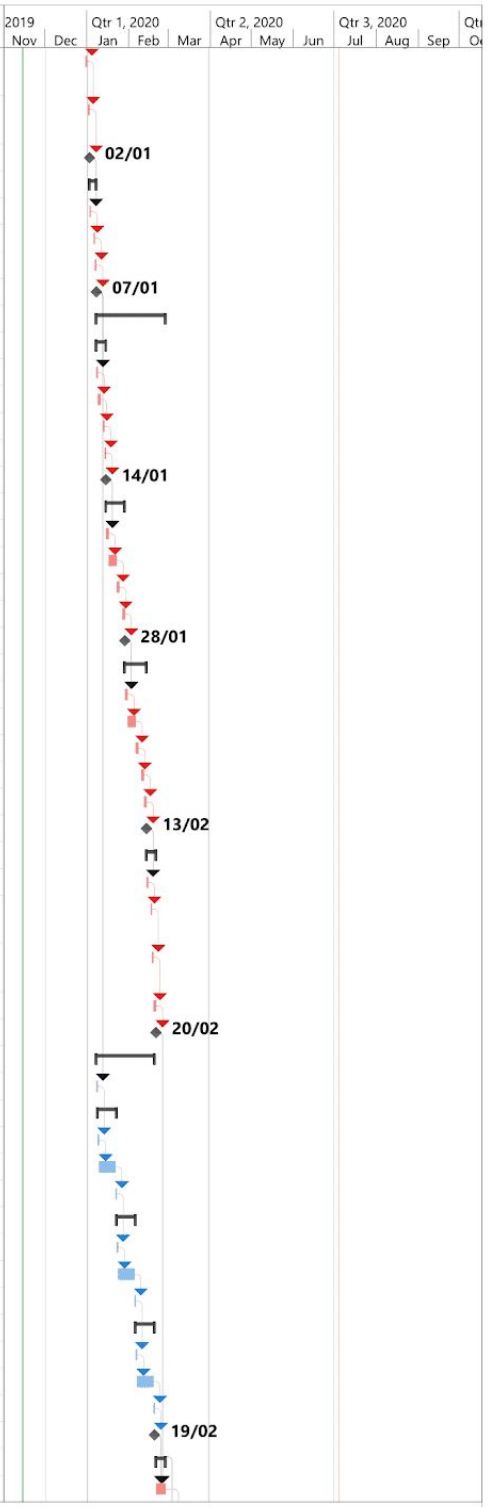
Above we present the list resource-allocation for all the activities.

- **Detailed Gantt-Chart**

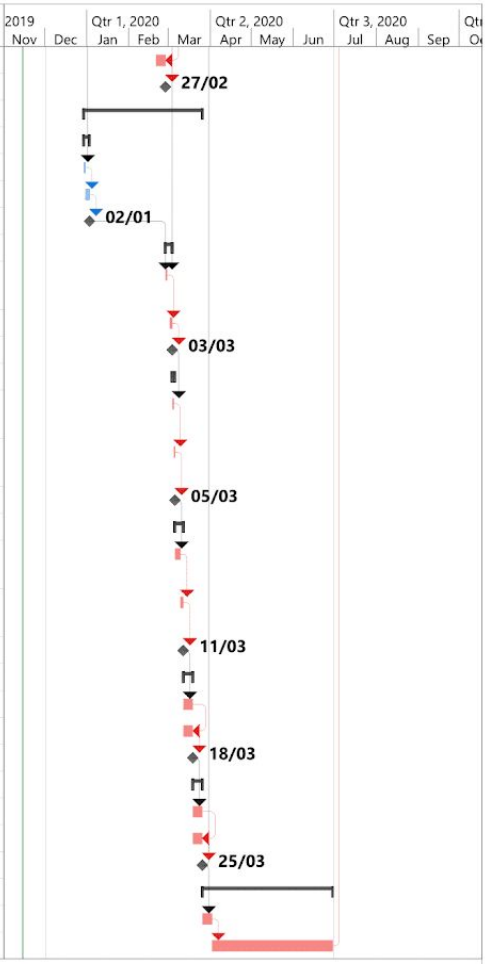
| ID | Task Name | Duration | Start |
|---|---|---|---|
| 1 | **Project Management** | **146 days** | **02/12/19** |
| 2 | **Project Initiation** | **3 days** | **02/12/19** |
| 3 | Review Project Charter | 1 day | 02/12/19 |
| 4 | Review Stakeholders Identification | 1 day | 03/12/19 |
| 5 | Establish Project Team | 1 day | 04/12/19 |
| 6 | Project Started | 0 days | 04/12/19 |
| 7 | **Project Planning** | **5 days** | **05/12/19** |
| 8 | Review Project Scope and Time | 1 day | 05/12/19 |
| 9 | Define Project Organization | 1 day | 06/12/19 |
| 10 | Define Communication plan | 1 day | 09/12/19 |
| 11 | Review Project Plan | 1 day | 10/12/19 |
| 12 | Kick-off Meeting | 1 day | 11/12/19 |
| 13 | Project Plan Approved | 0 days | 11/12/19 |
| 14 | **Control** | **68 days** | **13/12/19** |
| 15 | Control 1 | 1 day | 13/12/19 |
| 16 | Control 2 | 1 day | 20/12/19 |
| 17 | Control 3 | 1 day | 27/12/19 |
| 18 | Control 4 | 1 day | 03/01/20 |
| 19 | Control 5 | 1 day | 10/01/20 |
| 20 | Control 6 | 1 day | 17/01/20 |
| 21 | Control 7 | 1 day | 24/01/20 |
| 22 | Control 8 | 1 day | 31/01/20 |
| 23 | Control 9 | 1 day | 07/02/20 |
| 24 | Control 10 | 1 day | 14/02/20 |
| 25 | Control 11 | 1 day | 21/02/20 |
| 26 | Control 12 | 1 day | 28/02/20 |
| 27 | Control 13 | 1 day | 06/03/20 |
| 28 | Control 14 | 1 day | 13/03/20 |
| 29 | Control 15 | 1 day | 20/03/20 |
| 30 | **Project Close** | **66 days** | **26/03/20** |
| 31 | Review Project Objectives | 1 day | 26/03/20 |
| 32 | Collect Lessons Learned | 1 day | 27/03/20 |
| 33 | Provide Feedback | 1 day | 30/03/20 |
| 34 | Close Contracts | 1 day | 30/06/20 |
| 35 | Project Closed | 0 days | 30/06/20 |
| 36 | **Definition** | **10 days** | **12/12/19** |
| 37 | **Analyse Actual Situation** | **5 days** | **12/12/19** |
| 38 | Describe processes for Employees Register | 1 day | 12/12/19 |
| 39 | Describe processes for Holidays and Absences | 1 day | 13/12/19 |
| 40 | Describe processes for Training Management | 1 day | 16/12/19 |
| 41 | Describe processes for Interface Implementation | 1 day | 17/12/19 |
| 42 | Describe processes for Corporate Information | 1 day | 18/12/19 |
| 43 | Described Current Processes | 0 days | 18/12/19 |
| 44 | **Requirement Specification** | **5 days** | **19/12/19** |
| 45 | Gap Analysis For Each Module | 3 days | 19/12/19 |
| 46 | Identify Parameters That Will Be U: | 1 day | 26/12/19 |
| 47 | Review project requirements | 1 day | 27/12/19 |
| 48 | Reviewed Project Requirements | 0 days | 27/12/19 |
| 49 | **Analysis & Design** | **6 days** | **30/12/19** |
| 50 | **Framework Interface Design** | **3 days** | **30/12/19** |
| 51 | Design the WebService | 1 day | 30/12/19 |



| ID | Task Name | Duration | Start |
|---|---|---|---|
| 52 | Design Interface To Access Employees' Data | 1 day | 31/12/19 |
| 53 | Design Interface To Access Employees' Salary | 1 day | 02/01/20 |
| 54 | Framework Interface Design Finish | 0 days | 02/01/20 |
| 55 | **Tests Specification** | **3 days** | **03/01/20** |
| 56 | Define Integration Tests | 1 day | 03/01/20 |
| 57 | Define System tests | 1 day | 06/01/20 |
| 58 | Define Acceptance Tests | 1 day | 07/01/20 |
| 59 | Tests Specification Defined | 0 days | 07/01/20 |
| 60 | **Realization** | **37 days** | **08/01/20** |
| 61 | **Employees Register** | **5 days** | **08/01/20** |
| 62 | Parametrize The Module | 1 day | 08/01/20 |
| 63 | Implement New Requirements | 2 days | 09/01/20 |
| 64 | Implement Profile Configuration | 1 day | 13/01/20 |
| 65 | Test The Implementation | 1 day | 14/01/20 |
| 66 | Finished Module 1 Implementation | 0 days | 14/01/20 |
| 67 | **Holidays and Absences** | **10 days** | **15/01/20** |
| 68 | Parametrize The Module | 2 days | 15/01/20 |
| 69 | Implement New Requirements | 4 days | 17/01/20 |
| 70 | Implement Profile Configuration | 2 days | 23/01/20 |
| 71 | Test The Implementation | 2 days | 27/01/20 |
| 72 | Finished Module 2 Implementation | 0 days | 28/01/20 |
| 73 | **Training Management** | **12 days** | **29/01/20** |
| 74 | Parametrize The Module | 2 days | 29/01/20 |
| 75 | Implement New Requirements | 4 days | 31/01/20 |
| 76 | Create Script For Data Migration | 2 days | 06/02/20 |
| 77 | Allowance | 2 days | 10/02/20 |
| 78 | Test The Implementation | 2 days | 12/02/20 |
| 79 | Finished Module 3 Implementation | 0 days | 13/02/20 |
| 80 | **Interface Implementation** | **5 days** | **14/02/20** |
| 81 | Implement the WebService | 1 day | 14/02/20 |
| 82 | Implement the interface to access employees' Data | 1 day | 17/02/20 |
| 83 | Implement the interface to access employees' Salaries | 1 day | 18/02/20 |
| 84 | Test The Implementation | 2 days | 19/02/20 |
| 85 | Finished Module 5 Implementation | 0 days | 20/02/20 |
| 86 | **Corporate Information** | **31 days** | **08/01/20** |
| 87 | Create Backlog | 1 day | 08/01/20 |
| 88 | **Sprint 1** | **10 days** | **09/01/20** |
| 89 | Plan The Sprint | 1 day | 09/01/20 |
| 90 | Realize The Sprint | 8 days | 10/01/20 |
| 91 | Review The Results | 1 day | 22/01/20 |
| 92 | **Sprint 2** | **10 days** | **23/01/20** |
| 93 | Plan The Sprint | 1 day | 23/01/20 |
| 94 | Realize The Sprint | 8 days | 24/01/20 |
| 95 | Review The Results | 1 day | 05/02/20 |
| 96 | **Sprint 3** | **10 days** | **06/02/20** |
| 97 | Plan The Sprint | 1 day | 06/02/20 |
| 98 | Realize The Sprint | 8 days | 07/02/20 |
| 99 | Review The Results | 1 day | 19/02/20 |
| 100 | Sprints Completed | 0 days | 19/02/20 |
| 101 | **Integration Tests** | **5 days** | **21/02/20** |
| 102 | Integration Test Every Module | 5 days | 21/02/20 |



| ID | Task Name | Duration | Start |
|---|---|---|---|
| 103 | Fix Bugs | 5 days | 21/02/20 |
| 104 | Passed All Integration Tests | 0 days | 27/02/20 |
| 105 | **Transition** | **62 days** | **30/12/19** |
| 106 | **Hardware and Infrastructure** | **3 days** | **30/12/19** |
| 107 | Planning of the setup | 1 day | 30/12/19 |
| 108 | Setup of Hardware and Infrastructu | 2 days | 31/12/19 |
| 109 | Hardware and Infrastructure Install | 0 days | 02/01/20 |
| 110 | **Software Installation** | **3 days** | **28/02/20** |
| 111 | Preparation of the environment for Installation | 1 day | 28/02/20 |
| 112 | Installation of Software | 2 days | 02/03/20 |
| 113 | Software Installed | 0 days | 03/03/20 |
| 114 | **Data Migration** | **2 days** | **04/03/20** |
| 115 | Prepare the system to receive training data | 1 day | 04/03/20 |
| 116 | Migrate training information to the system | 1 day | 05/03/20 |
| 117 | Data Migrated | 0 days | 05/03/20 |
| 118 | **Training** | **4 days** | **06/03/20** |
| 119 | Train The HRD Staff To Use The Software | 2 days | 06/03/20 |
| 120 | Train The DSI Staff To Use The Software | 2 days | 10/03/20 |
| 121 | Target Users Trained | 0 days | 11/03/20 |
| 122 | **System Tests** | **5 days** | **12/03/20** |
| 123 | Run System Tests | 5 days | 12/03/20 |
| 124 | Fix Bugs | 5 days | 12/03/20 |
| 125 | Project Transition Completed | 0 days | 18/03/20 |
| 126 | **Acceptance Tests** | **5 days** | **19/03/20** |
| 127 | Run Acceptance Tests | 5 days | 19/03/20 |
| 128 | Fix Bugs | 5 days | 19/03/20 |
| 129 | Acceptance Tests Approved | 0 days | 25/03/20 |
| 130 | **Operation** | **65 days** | **26/03/20** |
| 131 | Support | 1 wk | 26/03/20 |
| 132 | Warranty | 3 mons | 02/04/20 |



The second Gantt Chart that our team produced is presented above, with the critical path and all activities.