



Software requirements specification

Version 1.0

Demo application “Human Resources”

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1 Introduction

1.1 Purpose of the document

The purpose of the software requirements specification is to produce a specification for "Human Resources", which is binding for the development and is as unambiguous as possible. To this end, it contains the sum of all the requirements which have been made (and accepted) on this product and project management from the perspective of the project.

1.2 Validity of the document

This software requirements specification applies to the complete "Human Resources" project.

1.3 Definitions of terms and abbreviations

- IDATG - Integrating Design and Automated Test Case Generation. A PSE in-house tool able to automatically generate test cases from a GUI specification.

1.4 Relationship with other documents

- GUI specification for Human Resources

1.5 Overview of the document

The document provides a short description of the functions and other requirements the "Human Resources" application has to meet.

2 General description of the product

2.1 Relationship with existing projects

Not relevant

2.2 Relationship with earlier and follow-up projects

Not relevant

2.3 Purpose of the product

Example for sem-t training.

2.4 Delimitation and embedding of the product

Not relevant

2.5 Overview of the required functionality

The Human Resources program lets you add, delete, and search for persons in a database.

2.6 General restrictions

Human Resources has been designed for single user operation mode.

2.7 Hardware and software specifications

Human Resources is to execute on a PC under MS Windows NT, 2000, and XP.
MS Visual C++ 6.0 is to be used as development tool.

2.8 Product users

Human Resources staff with basic PC know-how.

3 Detailed description of the required product features

3.1 Scope of delivery

- Executable
- User documentation

3.2 Sequences (scenarios) of interactions with the environment

A typical scenario from the user's point of view would look as follows:

1. Add several data records (function 3.4.1)
2. Search for a data record (function 3.4.2)
3. Edit (function 3.4.3) or delete (function 3.4.4) a record

3.3 User goals

Personal data administration, as simple and fast as possible.

3.4 Required functions of the product

3.4.1 Add new persons

Effect

Data of persons entered are stored in database after verification.

Dependencies/constraints

- Name, profession, and age specification mandatory.
- Number range for age 18 - 70 only.
- Unmarried persons must not have a maiden name.
- All other persons **may** (but need not) have a maiden name.
- One person cannot be a PhD and an MBA at the same time.
- No name must appear more than once in the database.

3.4.2 Search for persons

Effect

After the user has entered the name of a person, the corresponding data will be searched for in the database and, after having been found, displayed on the screen.

Dependencies/constraints

It is mandatory to enter a name.

The person's data must be stored in the database.

3.4.3 Edit person

Effect

The data in a version already stored in the database is modified.

Dependencies/constraints

The person's data must be stored in the database.

It is only possible to edit the data of persons you previously searched for.

The rules described in 3.4.1 apply to the modified input data.

3.4.4 Delete persons

Effect

A person's data is permanently removed from the database.

Dependencies/constraints

The person's data must be stored in the database.

Prior to deletion, a dialog box will be shown to ask for confirmation (Do you really want to delete...).

It is only possible to delete the data of persons you previously searched for.

3.5 External interfaces of the product

3.5.1 User interfaces

The user interface should look as follows:

The screenshot shows a Windows-style application window titled "Human Resources" with a menu bar containing "File", "Management", and "Help". The main area contains a form with the following fields and controls:

- Name:** A text input field.
- Maiden Name:** A text input field.
- Age:** A text input field.
- Sex:** A group box containing two radio buttons: "Female" (selected) and "Male".
- Marital Status:** A group box containing four radio buttons: "Single" (selected), "Divorced", "Married", and "Widowed".
- Academic Degree:** A group box containing two checkboxes: "PhD" and "MBA".
- Profession:** A dropdown menu.
- Buttons:** "Search", "OK", "Delete", and "Cancel".

In the case of user errors or wrong input, a message box should be displayed with a corresponding message text. Subsequently, the cursor should return to the field containing the incorrect data.

The menu is for decoration only, to improve the screen form's layout.

3.5.2 System interfaces

3.5.2.1 Database interface

The data entered by the user is stored in an MS Access database called "HR.mdb". Communication with the database is via ODBC.

3.6 Other product features required

3.6.1 Performance

Maximum response time for searches 1 second, for adding and deleting persons 0.5 seconds.

3.6.2 Resource

The application must be able to manage at least 10,000 data records.

3.6.3 Security

Not relevant

3.6.4 Safety

Not relevant

3.6.5 Portability

Not relevant

3.6.6 Reliability

The database must be available around the clock.

3.6.7 Maintenance

Not relevant

3.6.8 Reuse

Not relevant

3.6.9 Usability

Not relevant

3.6.10 Environment

Not relevant

4 Specifications for project management

4.1 Implementation requirements

4.2 Ready-to-use and bought-in components

4.3 Subcontractors

4.4 Acceptance conditions

4.5 Terms of delivery

4.6 Requirements for use

4.7 Warranty

5 Obligations of the client

6 Literature

7 Annex