|  |
| --- |
| Software requirement specification |
| [Project Name] |
| [Version] |
| Prepared by [author]  [Create date] |

Contents

[Revision History 4](#_Toc300928268)

[Introduction 5](#_Toc300928269)

[Purpose 5](#_Toc300928270)

[Document Conventions 5](#_Toc300928271)

[Intended Audience and Reading Suggestions 5](#_Toc300928272)

[Project Scope 5](#_Toc300928273)

[References 5](#_Toc300928274)

[Overall Description 5](#_Toc300928275)

[Product Perspective 5](#_Toc300928276)

[Product Features 6](#_Toc300928277)

[User Classes and Characteristics 6](#_Toc300928278)

[Operating Environment 6](#_Toc300928279)

[Design and Implementation Constraints 6](#_Toc300928280)

[User Documentation 6](#_Toc300928281)

[Assumptions and Dependencies 6](#_Toc300928282)

[System Features 6](#_Toc300928283)

[System Feature 1 7](#_Toc300928284)

[System Feature 2 (and so on) 7](#_Toc300928285)

[External Interface Requirements 7](#_Toc300928286)

[User Interfaces 7](#_Toc300928287)

[Hardware Interfaces 7](#_Toc300928288)

[Software Interfaces 7](#_Toc300928289)

[Communications Interfaces 8](#_Toc300928290)

[Other Nonfunctional Requirements 8](#_Toc300928291)

[Performance Requirements 8](#_Toc300928292)

[Safety Requirements 8](#_Toc300928293)

[Security Requirements 8](#_Toc300928294)

[Software Quality Attributes 8](#_Toc300928295)

[Other Requirements 8](#_Toc300928296)

[Appendix A: Glossary 9](#_Toc300928297)

[Appendix B: Analysis Models 9](#_Toc300928298)

[Appendix C: Issues List 9](#_Toc300928299)

# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Date | Reason for changes | Version |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Introduction

## 1.1 Purpose

Human Resource Software developed base on KH&QLNL requirement, the object resolve difficult excel management and to satisfy information management at Van Lang University, Helping Resource Department is easy information management of staff and teacher such as training management, Function, Employee History, Position Management, Reward or Penalty, Family Relationship, Support People.

## Document Conventions

[*Describe any standards or typographical conventions that were followed when writing this SRS, such as fonts or highlighting that have special significance. For example, state whether priorities for higher-level requirements are assumed to be inherited by detailed requirements, or whether every requirement statement is to have its own priority*]

## 1.3 Intended Audience and Reading Suggestions

The document has written for project team. In additional, Customer that if they understand technique because the document describe Function Use case of Human Resource.

## 1.4 Project Scope

Human Resource System at Van Lang University operate dependent on manual process on excel. Almost the statistics handle and save by manual. So, Human Resource Software will deal with difficult KH&QLNS.

This system must operate on distance between two local, the object manage staffs/teachers. Saving Personal Information Management of staff is working or retirement. In additional, the system will update auto large number staff/teachers information every year. Total and reporting result department at Van Lang University.

## 1.5 References

[*List any other documents or Web addresses to which this SRS refers. These may include user interface style guides, contracts, standards, system requirements specifications, use case documents, or a vision and scope document. Provide enough information so that the reader could access a copy of each reference, including title, author, version number, date, and source or location.*]

# Overall Description

## 2.1 Product Perspective

[*Describe the context and origin of the product being specified in this SRS. For example, state whether this product is a follow-on member of a product family, a replacement for certain existing systems, or a new, self-contained product. If the SRS defines a component of a larger system, relate the requirements of the larger system to the functionality of this software and identify interfaces between the two. A simple diagram that shows the major components of the overall system, subsystem interconnections, and external interfaces can be helpful.*]

## 2.2 Product Features

[*Summarize the major features the product contains or the significant functions that it performs or lets the user perform. Details will be provided in Section 3, so only a high level summary is needed here. Organize the functions to make them understandable to any reader of the SRS. A*

*picture of the major groups of related requirements and how they relate, such as a top level data*

*flow diagram or a class diagram, is often effective.*]

## HRM is particularly developed for human resource management in university / colleges. The system consists of key modules:

* Personal information management:
* Detailed management about employees’ background such as employees’ ID number, date of birth, place of birth, gender, number of insurance, address, telephone, current accommodation, working department, title, job title....
* Detailed Management about information on family relationships.
* Management about qualification, foreign language proficiency, information technology, politics.
* Managing employees’ storage of working records
* Detailed management about employees’ working experience
* Keeping track of employees’ praise and discipline records
* Keeping track of wages development of employees.
* Tracking the information on transferring work.
* Tracking what and where the employees are doing at any time
* Supporting the monitoring benefits of employees participating in social insurance and health insurance.
* Tracking leaves of all kinds such as illness leave, maternity leave….
* Report on personnel management:
  + Curriculum vitae
  + The statistics records of workers
  + Horizontal list of current excerpts and teachers
  + List of taking leaves
  + List of staffs-teachers whose contracts are expired
  + List of staffs-teachers who are going to retire
  + List of staffs - teachers are rewarded and disciplined
* Employee labor contract management:
* Detailed management about the contracts between the employees and employers: probation contracts, job training, the time limited and unlimited official contracts.
* Keeping track of renewal contract.
* Keeping track of storing profiles when employees quit working or suspend the contract.
* Recruitment & training processing:
* Detailed management about applicants’ profiles
* Keeping track of detailed information on the job interviews
* When applicants are chosen, the records will be automatically updated to official profiles of the staff
* Planning and monitoring the training plan implementation of the whole staff.
* Keeping track of the training, and the cost for training implementation.
* Keeping track of the advanced training cost and payment for each member in the teaching staff.
* Payroll:

The input figures for the salaries such as the minimum wage, payment for further study, long - term training, payment for working overtime, the figures of salary adjustments based on the results and how to emulate the monthly salary as required. Modules also provide the output:

* Table of income apart from salary
* General report on payment of wages
* Report on salary increase plan (quarterly and monthly)
* Administration panel – Utilities:
* Shared directory management:
  + List is updated once and shared throughout the entire system.
  + List assigned using the update function as well as the role of each section in order to unify the code list used for the whole staff.
  + The list of personnel management includes: List of sections, departments, production groups, titles, family relationships, ethnicity, degrees and certificates, qualification, types of contract, Salary Price...
* System security management:
  + Managing users who logging in the system.
  + Managing users and user groups.
  + Change password for users.
  + Update data for each group, each user.
  + Distribute rights to exploit the program for each group, each user.
* Insurance management:
* Assessment management:
* Income management:
* Report management:

## 2.3 User Classes and Characteristics

[*Identify the various user classes that you anticipate will use this product. User classes may be differentiated based on frequency of use, subset of product functions used, technical expertise, security or privilege levels, educational level, or experience. Describe the pertinent characteristics of each user class. Certain requirements may pertain only to certain user classes. Distinguish the favored user classes from those who are less important to satisfy.*]



|  |  |  |
| --- | --- | --- |
| Number | Actor | Roles and Responsibilities, description |
| 1 | Department | * Supply working days: staff of department will summarize information about working days and provide for system. * Recruitment management: staff provides information about recruitment, recruitment form, promotion paper. * Update profile, training plan: Staff, lectures can update information in this field and manager of department can accept this info. * Supply rivalry result: staff collects information and then summits it to system. * System provide information about official lectures, outside lectures and personal salary to department |
| 2 | Educated Department | * Educated Department is part of department. * Besides, system provide information official lectures, outside lectures, personal salary table for it. |
| 3 | Account department | * Account department is part of department. * Besides, system provide salary table. |
| 4 | HR group | * Use all feature of system except income feature, Employee labor management. |
| 5 | Salary group | * Staff of salary group is responsible for payroll management and employee management. |
| 6 | Administrator | * Administrator can create account, and assign mission to staff. |

## 2.4 Operating Environment

[*Describe the environment in which the software will operate, including the hardware platform, operating system and versions, and any other software components or applications with which it must peacefully coexist.*]

* Máy tính: Bộ vi xử lý Intel Dual Core hoặc cao hơn.
* Bộ nhớ trong (RAM): 1GB trở lên.
* Ổ cứng: 1GB trống hoặc nhiều hơn.
* Màn hình: Độ phân giải 1024x768 hoặc tốt hơn.
* Ổ đọc đĩa DVD.
* Hệ điều hành: Windows XP/Vista/7
* Bộ gõ tiếng Việt: Unicode.
* Server hoạt động trên nền tảng .Net.

## 2.5 Design and Implementation Constraints

[*Describe any items or issues that will limit the options available to the developers. These might include: corporate or regulatory policies; hardware limitations (timing requirements, memory requirements); interfaces to other applications; specific technologies, tools, and databases to be used; parallel operations; language requirements; communications protocols; security considerations; design conventions or programming standards (for example, if the customer’s organization will be responsible for maintaining the delivered software).*]

- The system will use database of SQL server.

- Implement base on silver light and telerik, WCF (Window Communication Foundation).

- Program and fix code on XML file or properties of XML file.

## 2.6 User Documentation

[*List the user documentation components (such as user manuals, on-line help, and tutorials) that will be delivered along with the software. Identify any known user documentation delivery formats or standards.*]

- The system will provide description file about system and user-guide in text file.

# 2.8 System Features

[*This template illustrates organizing the functional requirements for the product by system features, the major services provided by the product. You may prefer to organize this section by use case, mode of operation, user class, object class, functional hierarchy, or combinations of these, whatever makes the most logical sense for your product.*]

## System Feature 1

[*Don’t really say “System Feature 1.” State the feature name in just a few words.*]

Description and Priority

[*Provide a short description of the feature and indicate whether it is of High, Medium, or Low priority. You could also include specific priority component ratings, such as benefit, penalty, cost, and risk (each rated on a relative scale from a low of 1 to a high of 9).*]

Stimulus/Response Sequences

[*List the sequences of user actions and system responses that stimulate the behavior defined for this feature. These will correspond to the dialog elements associated with use cases.*]

Functional Requirements

[*Itemize the detailed functional requirements associated with this feature. These are the software capabilities that must be present in order for the user to carry out the services provided by the feature, or to execute the use case. Include how the product should respond to anticipated error conditions or invalid inputs. Requirements should be concise, complete, unambiguous, verifiable, and necessary.Use “TBD” as a placeholder to indicate when necessary information is not yet available.*]

[*Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.*]

REQ-1:

REQ-2:

## System Feature 2 (and so on)

# External Interface Requirements

## 3.1 User Interfaces

[*Describe the logical characteristics of each interface between the software product and the users. This may include sample screen images, any GUI standards or product family style guides that are to be followed, screen layout constraints, standard buttons and functions (e.g., help) that will appear on every screen, keyboard shortcuts, error message display standards, and so on. Define the software components for which a user interface is needed. Details of the user interface design should be documented in a separate user interface specification.*]

## 3.2 Hardware Interfaces

[*Describe the logical and physical characteristics of each interface between the software product and the hardware components of the system. This may include the supported device types, the nature of the data and control interactions between the software and the hardware, and communication protocols to be used*]

## 3.3 Software Interfaces

[*Describe the connections between this product and other specific software components (name and version), including databases, operating systems, tools, libraries, and integrated commercial components. Identify the data items or messages coming into the system and going out and describe the purpose of each. Describe the services needed and the nature of communications. Refer to documents that describe detailed application programming interface protocols. Identify data that will be shared across software components. If the data sharing mechanism must be implemented in a specific way (for example, use of a global data area in a multitasking operating system), specify this as an implementation constraint.*]

## 3.4 Communications Interfaces

[*Describe the requirements associated with any communications functions required by this product, including e-mail, web browser, network server communications protocols, electronic forms, and so on. Define any pertinent message formatting. Identify any communication standards that will be used, such as FTP or HTTP. Specify any communication security or encryption issues, data transfer rates, and synchronization mechanisms*]

# Other Nonfunctional Requirements

## 4.1 Performance Requirements

The system will run with high performance, events occur and the system must respond in a timely fashion from 2 to 4 seconds.

## 4.2 Security Requirements

This quality is very important for system because it will help the system to prevent or resist unauthorized access while providing access to legitimate users. That is presented two points of view as encode information, data and prevent hacker.

That all is showed in the product:

* Using newest information encode technology (encode information: username, password, data current between client and server)
* The product will release free defect to avoid lose information by hacker.

## Software Quality Attributes

* + 1. **Usability**

The interface will show clearly, easy to understand, and visually. The information is expressed science to create a favorable environment for user.

That all is showed in the product.

* To learn
  + Interface familiar, consistent
  + Clearly, science
  + The Menu and Button are placed suitable for user’ habit too easy to execute
* To use system effective
  + Reuse command or data already entered
  + Navigation support, comprehensive searching
* To recover from errors
  + Undo, cancel, recover from system failures

Forgotten passwords

* + 1. Scalability

The system will be easy to upgraded or added new module to the system.

* + 1. Modifiability

The system will be easy to added, deleted and modified function.

* + 1. Availability

The system will provide 12/24 availability from 7:00 AM to 19:00 PM to ensure data for working if it is impacted from internal or external as crashed, omission, timing, no response, incorrect response.

# 4.4 Other Requirements

[*Define any other requirements not covered elsewhere in the SRS. This might include database requirements, internationalization requirements, legal requirements, reuse objectives for the project, and so on. Add any new sections that are pertinent to the project.*]

# 4.5 Appendix A: Glossary

[*Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRS.*]

# 4.6 Appendix B: Analysis Models

[*Optionally, include any pertinent analysis models, such as data flow diagrams, class diagrams, state-transition diagrams, or entity-relationship diagrams*.]

# 4.7 Appendix C: Issues List

[*This is a dynamic list of the open requirements issues that remain to be resolved, including TBDs, pending decisions, information that is needed, conflicts awaiting resolution, and the like.*]