Software Requirements Specification

for

<Testing TOEIC>

Version 1.0 approved

Prepared by <author>

<organization>

<date created>

Table of Contents

Table of Contents ii

Revision History ii

1. Introduction 1

1.1 Purpose 1

1.2 Document Conventions 1

1.3 Intended Audience and Reading Suggestions 1

1.4 Product Scope 1

1.5 References 1

2. Overall Description 2

2.1 Product Perspective 2

2.2 Product Functions 2

2.3 User Classes and Characteristics 2

2.4 Operating Environment 2

2.5 Design and Implementation Constraints 2

2.6 User Documentation 2

2.7 Assumptions and Dependencies 3

3. External Interface Requirements 3

3.1 User Interfaces 3

3.2 Hardware Interfaces 3

3.3 Software Interfaces 3

3.4 Communications Interfaces 3

4. System Features 4

4.1 System Feature 1 4

4.2 System Feature 2 (and so on) 4

5. Other Nonfunctional Requirements 4

5.1 Performance Requirements 4

5.2 Safety Requirements 5

5.3 Security Requirements 5

5.4 Software Quality Attributes 5

5.5 Business Rules 5

6. Other Requirements 5

Appendix A: Glossary 5

Appendix B: Analysis Models 5

Appendix C: To Be Determined List 6

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
|  | Nov 18, 2018 | The first version | 1.0 |
|  |  |  |  |

# Introduction

## Purpose

This Software Requirements Specification provides a complete description of all the functions and specifications of the TTS project developing Testing TOEIC System. This document is intended to be used by the members of the project team that will implement and verify the correct functioning of the system.

## 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.>

## Intended Audience and Reading Suggestions

<Describe the different types of reader that the document is intended for, such as developers, project managers, marketing staff, users, testers, and documentation writers. Describe what the rest of this SRS contains and how it is organized. Suggest a sequence for reading the document, beginning with the overview sections and proceeding through the sections that are most pertinent to each reader type.>

## Product Scope

<Provide a short description of the software being specified and its purpose, including relevant benefits, objectives, and goals. Relate the software to corporate goals or business strategies. If a separate vision and scope document is available, refer to it rather than duplicating its contents here.>

## 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

## Product Perspective

Đây là một sản phẩm riêng biệt và chạy độc lập

## Product Functions

* Cho phép người dùng thi TOEIC trực tuyến
* Cho phép người dùng xem điểm thi trực tuyến

## User Classes and Characteristics

Đối với non-admin:

* Có thể đăng nhập vào trang
* Có thể đăng ký dự thi trực tuyến
* Có thể tham dự kì thi trực tuyến
* Xem được kết quả thi sau khi thi xong

Đối với administrator:

* Có thể xem được thống kê bao nhiêu lượt truy xuất vào trang
* Có thể nắm bắt được số lượng thí sinh đăng ký dự thi
* Có thể xem được hiện tại có bao nhiêu thí sinh đang thi

## Operating Environment

Để có thể sử dụng dịch vụ mà trang cung cấp, cần yêu cầu người sử dụng phải sử dụng pc hoặc laptop (không hỗ trợ các thiết bị điện thoại hoặc tablet các loại) và phải có kết nối mạng ổn định.

Để có thể sử dụng tối đa chức năng thi, yêu cầu phải có headphone để có thể thực hiện phần thi listening tốt nhất.

## 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).>

## 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.>

## Assumptions and Dependencies

<List any assumed factors (as opposed to known facts) that could affect the requirements stated in the SRS. These could include third-party or commercial components that you plan to use, issues around the development or operating environment, or constraints. The project could be affected if these assumptions are incorrect, are not shared, or change. Also identify any dependencies the project has on external factors, such as software components that you intend to reuse from another project, unless they are already documented elsewhere (for example, in the vision and scope document or the project plan).>

# External Interface Requirements

## 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.>

## 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.>

## 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.>

## 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.>

# 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.>

## Chức năng làm bài

4.1.1 Description and Priority

-Admin:

* Hiện số lượt user đã truy cập
* Thêm và chỉnh sửa đề thi
* Có quyền truy xuất vào trang kết quả thi và kết quả đánh giá

-User: (mặc định đây là thi thật)

* + - Hiện 1 nút bắt đầu làm bài, khi bấm vào chuyển đến trang làm bài
    - Hiển thị đồng hồ đếm ngược thời gian làm bài
    - Hiển thị tổng số câu hỏi và câu hỏi người dùng hiện tại đang làm để tiện theo dõi, câu nào đã làm sẽ được đánh dấu
    - Những câu đã làm không thể làm lại
    - Người dùng không thể chọn câu nào để làm trước mà phải làm theo thứ tự của đề thi đã đề ra
    - Ở phần listening, sẽ có một nút bấm để người dùng bật 1 trang pop-up để nghe bài thi và đề thi sẽ hiển thị ở trang chính cho người dùng dễ dàng làm bài
    - Đề nghe chỉ được nghe 1 và duy nhất 1 lần
    - Ở phần Reading, số câu hỏi sẽ được hiển thị trước giống ở phần Listening và có thêm 1 nút để pop-up 1 trang mới hiển thị đề bài đọc
    - Khi làm hết câu hỏi sẽ hiển thị 1 nút nộp bài
    - Khi nộp bài sẽ hiển thị kết quả cho người dùng trễ nhất 5' sau khi ấn nút nộp
    - Sau khi có kết quả sẽ hiển thị 1 bảng phụ (optional) cho người dùng đánh giá chất lượng dịch vụ đề thì mà trang web cung cấp

4.1.2 Stimulus/Response Sequences

1. Khi người dùng nhấn nút làm bài, sẽ được hệ thống yêu cầu đăng nhập.
2. Sau khi người dùng đăng nhập, xuất hiện tin push yêu cầu xác nhận ghi danh làm bài.
3. Sau khi xác nhận, người dùng sẽ được đưa đến trang làm bài thi.
4. Đối với phần nghe mỗi trang làm bài sẽ hiện 1 câu hỏi.
5. Đối với phần đọc, sẽ xuất hiện pop up hiện phần đề đọc.
6. Mỗi câu hỏi sẽ có 1 nút đánh dấu để người dùng đánh dấu những câu hỏi còn chưa chắc chắn.
7. Sau khi đến phần câu hỏi cuối cùng của đè thi, sẽ xuất hiện 1 nút chuyển đến trang nộp bài.
8. Hệ thống sẽ hiện tin nhắn push để người dùng xác nhận nộp bài.
9. Sau khi nộp bài, người dùng sẽ được chuyển đến trang kết quả để xem điểm.

4.1.3 Functional Requirements

REQ-1: Login

REQ-2: Chấm điểm bài làm

REQ-3: Lưu kết quả và hiển thị

REQ-4: Đếm số lượt truy cập

REQ-5: Thêm và chỉnh sửa đề (Only Admin)

## System Feature 2 (and so on)

# Other Nonfunctional Requirements

## Performance Requirements

<If there are performance requirements for the product under various circumstances, state them here and explain their rationale, to help the developers understand the intent and make suitable design choices. Specify the timing relationships for real time systems. Make such requirements as specific as possible. You may need to state performance requirements for individual functional requirements or features.>

## Safety Requirements

<Specify those requirements that are concerned with possible loss, damage, or harm that could result from the use of the product. Define any safeguards or actions that must be taken, as well as actions that must be prevented. Refer to any external policies or regulations that state safety issues that affect the product’s design or use. Define any safety certifications that must be satisfied.>

## Security Requirements

<Specify any requirements regarding security or privacy issues surrounding use of the product or protection of the data used or created by the product. Define any user identity authentication requirements. Refer to any external policies or regulations containing security issues that affect the product. Define any security or privacy certifications that must be satisfied.>

## Software Quality Attributes

<Specify any additional quality characteristics for the product that will be important to either the customers or the developers. Some to consider are: adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability. Write these to be specific, quantitative, and verifiable when possible. At the least, clarify the relative preferences for various attributes, such as ease of use over ease of learning.>

## Business Rules

<List any operating principles about the product, such as which individuals or roles can perform which functions under specific circumstances. These are not functional requirements in themselves, but they may imply certain functional requirements to enforce the rules.>

# 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.>

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.>

Appendix B: Analysis Models

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

Appendix C: To Be Determined List

<Collect a numbered list of the TBD (to be determined) references that remain in the SRS so they can be tracked to closure.>