
Software Requirements Specification

for

Vocational Test Quiz WebApp

Version 1.0 approved?

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Revision History

Name	Date	Reason For Changes	Version

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1. Introduction

1.1 Purpose

The purpose of the project is to help the incoming students of the Universidad Nacional de Río Cuarto to find the career that most fits their profile.

1.2 Document Conventions

APP: Application.

DB: Database.

1.3 Intended Audience and Reading Suggestions

This document is intended for clients with some knowledge about programming and computer sciences. This has been implemented under the guidance of college professors.

1.4 Product Scope

The software is being developed to guide students and teachers in the vocational orientation process, specifically with a quiz. Primary objective is to bring a powerful and concise, ease to use tool to resume strengths and interest of the student users. It will consist of a multiple choice test and a database to store test results.

1.5 References

<https://www.typeform.com/> WebApp provided by Franco Brusatti to orient the software that we will make.

2. Overall Description

2.1 Product Perspective

This is a new product, consisting of:

- A database, where statistical info will be stored.
- The main application, where questions and answers will be presented to users.
- A GUI for teachers to access info stored in the DB.
- A server to connect the main app and the client.

2.2 Product Functions

This software requires the following general functions:

- Create, edit and delete quizzes.
- Respond to quizzes and request information based on results.
- View and analyze students' results and answers.

2.3 User Classes and Characteristics

This product will have this users and responsibilities:

- Users can respond to several vocational tests.
- Users can visualize the statistics of vocational tests results.
- Super Users can create/modify vocational tests.

2.4 Operating Environment

This software will run in the following conditions:

- Centralized database.
- Client/Server system.
- Browser based.
- Database: PostgreSQL.
- Platform: Ruby/Sinatra.

2.5 Design and Implementation Constraints

- Implement a secure login system.

2.6 User Documentation

TBD

2.7 Assumptions and Dependencies

- Students will make responsible use of this software.

3. External Interface Requirements

3.1 User Interfaces

TBD

3.2 Hardware Interfaces

Any hardware device.

3.3 Software Interfaces

Every user will need an internet browser and an internet connection to display tests and information in any operating system.

3.4 Communications Interfaces

This software will use HTTP transfer protocol to send and receive formularies.

4. System Features

4.1 Account Management

4.1.1 Description and Priority

A login system general for Super User, with encrypted info to provide security. Then, the server must check if the user is a common User or Super User. More details will be seen in the next subsection.

Priority: Low.

4.1.2 Stimulus/Response Sequences

- When a user accesses the main page of the application, it will be required to login for Super User .
- When a Super User logs in, it must show his privileges options (create/modify a quiz)

4.1.3 Functional Requirements

- REQ-1: Recovering password system.
- REQ-2: Login into an account (Super User).
- REQ-3: If the password is incorrect, it should give you a notification and a new attempt.
- REQ-4: If the user doesn't exist, it should notify and give the option to create a new account.
- REQ-5: Once logged in, it should display each user's interface with each user's class options.
- REQ-6: It should auto log out when a certain time elapses without activity.
- REQ-7: Once logged out, a new login screen should appear.

4.2 Feedback System

4.2.1 Description and Priority

The finished quizzes will be stored in the DB, with the purpose of recopilate information about the careers and the incoming student. For example which career was the most returned for the vocational test, or request a list of careers ordered by the numbers of occurrences.

Priority: Medium.

4.2.2 Stimulus/Response Sequences

- When users respond to a vocational test and send the information for feedback.
- When users request some information to the system.

4.2.3 Functional Requirements

REQ-21: System must be able to store the information about the quiz.

REQ-22: System must be able to calculate the information requested by the users.

4.3 Quiz System

4.3.1 Description and Priority

Show the questions and a list of answers, allowing the user to select one of the answers, after reponed all the questions the result will be analyzed, it will be shown to the user who completed the questionnaire, giving the information of the career related to the answers given. Once completed, the data will be saved in a database.

Priority: High.

4.3.2 Stimulus/Response Sequences

- When selecting an answer you go to the next question.
- If next or previous is selected, you can see next or previous questions.
- Each time an answer is selected the progress is saved.
- If the user does not answer a question, it does not allow you to go to the next question.

4.3.3 Functional Requirements

REQ-41: The system must be able to load all the questions with their answers from a database.

REQ-42: The system should not allow us to go to the next question if we don't answer the current question.

REQ-43: The system must send us to a special page if the survey has no question loaded, or if we want to see statistics without completed surveys.

REQ-44: The system must store the current choice selected for a question.

REQ-45: The system must allow us to go back to the previous question (except if the question is the first question).

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- Fast feedback ordering.
- Low hardware usage.

5.2 Safety Requirements

TBD.

5.3 Security Requirements

Here we list some security concerns:

- Hide login password.
- Anonymum data results for statistics.

5.4 Software Quality Attributes

- Robustness.
- Portability.

5.5 Business Rules

Developers must be able to make changes in tests and users preferences.

6. Other Requirements

Appendix A: Glossary

Appendix B: Analysis Models

Appendix C: To Be Determined List

Revision History

2.6 User Documentation

3.1 User Interfaces

5.2 Safety Requirements

Appendix B: Analysis Models