*TAFE Invaders*

Product Design Specification

Version 1.0

28/05/2020

VERSION HISTORY

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Version #** | **Implemented**  **By** | **Revision**  **Date** | **Approved**  **By** | **Approval**  **Date** | **Reason** |
| 1.0 | *Ben Royans* | *28/05/2020* |  |  | Initial Design Definition draft |
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**UP Template Version:** 12/31/07

***Note to the Author***

[This document is a template of a **Product Design Specification** document for a project. The template includes instructions to the author, boilerplate text, and fields that should be replaced with the values specific to the project.

* Blue italicized text enclosed in square brackets ([text]) provides instructions to the document author, or describes the intent, assumptions and context for content included in this document.
* Blue italicized text enclosed in angle brackets (<text>) indicates a field that should be replaced with information specific to a particular project.
* Text and tables in black are provided as boilerplate examples of wording and formats that may be used or modified as appropriate to a specific project. These are offered only as suggestions to assist in developing project documents; they are not mandatory formats.

When using this template for your project document, it is recommended that you follow these steps:

1. Replace all text enclosed in angle brackets (i.e., <Project Name>) with the correct field values. These angle brackets appear in both the body of the document and in headers and footers. To customize fields in Microsoft Word (which display a gray background when selected):
   1. Select File>Properties>Summary and fill in the Title field with the Document Name and the Subject field with the Project Name.
   2. Select File>Properties>Custom and fill in the Last Modified, Status, and Version fields with the appropriate information for this document.
   3. After you click OK to close the dialog box, update the fields throughout the document with these values by selecting Edit>Select All (or Ctrl-A) and pressing F9. Or you can update an individual field by clicking on it and pressing F9. This must be done separately for Headers and Footers.
2. Modify boilerplate text as appropriate to the specific project.
3. To add any new sections to the document, ensure that the appropriate header and body text styles are maintained. Styles used for the Section Headings are Heading 1, Heading 2 and Heading 3. Style used for boilerplate text is Body Text.
4. To update the Table of Contents, right-click and select “Update field” and choose the option- “Update entire table”
5. Before submission of the first draft of this document, delete this “Notes to the Author” page and all instructions to the author, which appear throughout the document as blue italicized text enclosed in square brackets.]

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# Introduction

## Purpose of The Product Design Specification Document

[Provide the purpose of the Product Design Specification Document. This document should be tailored to fit a particular project’s needs.]

The Product Design Specification document documents and tracks the necessary information required to effectively define architecture and system design in order to give the development team guidance on architecture of the system to be developed. The Product Design Specification document is created during the Planning Phase of the project. Its intended audience is the project manager, project team, and development team. Some portions of this document such as the user interface (UI) may on occasion be shared with the client/user, and other stakeholder whose input/approval into the UI is needed.

# General Overview and Design Guidelines/Approach

This section describes the principles and strategies to be used as guidelines when designing and implementing the system.

## Assumptions / Constraints / Standards

This project was designed under the guidelines of Assessment Task 3 for Java III. Its requirements state the project must contain the following elements:

* Dynamic Data Structures
* Hashing Techniques
* Sorting Algorithm
* Searching Technique
* A 3rd party library
* A GUI

ISO/IEC/IEEE 12207:2017 as the coding standard for this project. This standard has been revised and released in 2017 by the IEEE Computer society and the International Organization for Standardizations collaborative efforts.

The following conventions, provided by Microsoft, will also be abided by in conjunction with/when not in conflict with the coding standards:

<https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/inside-a-program/coding-conventions>

# Architecture Design

This section outlines the system and hardware architecture design of the system that is being built.

[Describe the system architecture, how the application interacts with other applications. Not necessarily how the application itself works but, how the appropriate data is correctly passed between applications.]

## Logical View

[Insert any related logical views or provide a reference to where they are stored.]

## Software Architecture

This software project is a standalone application that will require the prior installation of a Java Virtual Machine (JVM).

# System Design

## Use-Cases

[Insert any related project use cases or provide a reference to where they are stored.]

## User Interface Design

[Insert any user interface design documents or provide a reference to where they are stored.]

# Approval

The undersigned acknowledge they have reviewed the TAFE Invaders **Product Design Specification** document and agree with the approach it presents. Any changes to this Requirements Definition will be coordinated with and approved by the undersigned or their designated representatives.

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Appendix A: References

[Insert the name, version number, description, and physical location of any documents referenced in this document. Add rows to the table as necessary.]

The following table summarizes the documents referenced in this document.

|  |  |  |
| --- | --- | --- |
| **Document Name and Version** | **Description** | **Location** |
| *<Document Name and Version Number>* | *[Provide description of the document]* | *<URL or Network path where document is located>* |

Appendix B: Key Terms

*[Insert terms and definitions used in this document. Add rows to the table as necessary. Follow the link below to for definitions of project management terms and acronyms used in this and other documents.*

*http://www2.cdc.gov/cdcup/library/other/help.htm*

The following table provides definitions for terms relevant to this document.

|  |  |
| --- | --- |
| **Term** | **Definition** |
| *[Insert Term]* | *[Provide definition of the term used in this document.]* |
| *[Insert Term]* | *[Provide definition of the term used in this document.]* |
| *[Insert Term]* | *[Provide definition of the term used in this document.]* |