Quality Assurance Plan

for

DreamBig

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Prepared by DreamBig Documentation

Thoth Tech

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Revision History

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Table of Contents

1. Introduction 4

1.1 Purpose 4

1.2 Scope 4

1.3 References 4

1.4 Overview 4

2. Quality Objectives 4

3. Management 4

3.1 Organization 4

3.2 Tasks and Responsibilities 5

4. Documentation 5

5. Standards and Guidelines 5

6. Metrics 5

7. Review and Audit Plan 6

8. Evaluation and Test 7

9. Problem Resolution and Corrective Action 7

10. Tools, Techniques, and Methodologies 7

11. Configuration Management 7

12. Supplier and Subcontractor Controls 7

13. Quality Records 7

14. Training 7

15. Risk Management 7

# Introduction

## Purpose

The purpose of this Quality Assurance Plan is to provide a quality assurance framework

that will be used as a guide by the DreamBig project members to ensure that a consistent approach is implemented towards software quality throughout the project.

This document describes the standards and procedures used as part of quality assurance activities as well as tools and techniques that are used to support activities and reporting.

## Scope

This document establishes the quality assurance activities that will be performed during the development and maintenance phases of the DreamBig project to ensure that all software and documentation delivered meets the specified requirements.

The DreamBig application provides students with a visual roadmap during their studies

that will assist them to understand their academic progress and the relationship between their progress and achieve their career goals. The application will integrate with OnTrack so that the student’s academic progress during term can be monitored and data shared to the DreamBig application.

The DreamBig project consists of three core teams which are the software development team, the UX prototype design team, and the documentation and QA team. Each team and any future teams will be required to adhere to the quality assurance standards documented for this project.

There are some quality assurance considerations which are unique to individual teams and are covered within the scope of this document along with broader activities.

## References

[This subsection provides a complete list of all documents referenced elsewhere in the **Quality Assurance Plan**. Identify each document by title, report number if applicable, date, and publishing organization. Specify the sources from which the references can be obtained. This information may be provided by reference to an appendix or to another document. For the **Quality Assurance Plan**, this should include:

• Documentation Plan

• Measurement Plan

• Test Plan

• Software Development Plan

• Problem Resolution Plan

• Configuration Management Plan

• Subcontractor Management Plan

• Risk Management Plan]

## Overview

[This subsection describes what the rest of the **Quality Assurance Plan** contains and explains how the document is organized.]

# Quality Objectives

[This section references the section of the Software Requirements Specification that deals with quality requirements.]

# Management

## Organization

[Describe the structure of the organization responsible for Quality Assurance. The Rational Unified Process recommends that the Software Engineering Process Authority (SEPA) be responsible for the process component of Quality Assurance. The Rational Unified Process further recommends that the product evaluation be done within the project (most notably by an independent test team) and by joint customer and developer review.]

## Tasks and Responsibilities

[Describe here the various Quality Assurance tasks that will be carried out for this project, and indicate how they are synchronized with the project's major and minor milestones. These tasks will include:

• Joint Reviews

• Process Audits

• Process Reviews

• Customer Audits

For each task, identify the role responsible for its execution.]

# Documentation

[Enclose the Documentation Plan artifact by reference.

Also, list the minimum documentation that must be produced during the project to ensure that the software product that is developed satisfies the requirements. The suggested minimum set is:

• Software Development Plan (SDP)

• Test Plan

• Iteration Plans

• Software Requirements Specification (SRS)

• Software Architecture Document

• User Documentation (for example, manuals, guides)

• Configuration Management Plan

Provide pointers to the Development Case to show where in the process the adequacy of these documents is evaluated.]

# Standards and Guidelines

[This section references any standards and guidelines that will be used on the project, and addresses how compliance with these standards and guidelines will be determined. The relevant artifacts are enclosed by reference. The suggested set for the Rational Unified Process is:

• Development Case

• Business Modeling Guidelines

• User-Interface Guidelines

• Use-Case Modeling Guidelines

• Design Guidelines

• Programming Guidelines

• Test Guidelines

• Manual Style Guide]

# Metrics

[This section describes the product, project, and process metrics that will be captured and monitored for the project. This is usually addressed by enclosing the Measurement Plan artifact by reference.]

# Review and Audit Plan

[This section contains the Review and Audit Plan, which specifies the schedule, resources, and methods and procedures to be used in conducting project reviews and audits. The plan details the various types of reviews and audits to be carried out during the project, and identifies any external agencies that are expected to approve or regulate the artifacts produced by the project.

This section identifies:

• Review and Audit Tasks

Describe briefly each type of review and audit that will be carried out on the project. For each type, identify the project artifacts that will be the subject of the review or audit. These may include Joint Customer and Developer Technical and Management Reviews, Process Reviews and Audits, Customer Audits, and Internal Technical and Management Reviews.

• Schedule

Detail the schedule for the reviews and audits. This includes reviews and audits scheduled at project milestones, as well as reviews that are triggered by delivery of project artifacts. This subsection may reference the project or iteration plan.

• Organization and Responsibilities

List the specific groups or individuals involved in each of the identified review and audit activities. Describe briefly the tasks and responsibilities of each. Also, list any external agencies that are expected to approve or regulate any product of the project.

• Problem Resolution and Corrective Action

This subsection describes the procedures for reporting and handling problems identified during project reviews and audits. The Problem Resolution Plan may be referenced.

• Tools, Techniques, and Methodologies

Describe any specific tools, techniques or methodologies that will be used to carry out the review and audit activities identified in this plan. You should describe the explicit process to be followed for each type of review or audit. Your organization may have a standard Review and Audit Procedures Manual, which may be referenced. These procedure descriptions should also address the collection, storage, and archiving of the project’s Review Records.

A suggested set of reviews and audits (drawn from the Rational Unified Process) to use as a basis for planning is:

• Requirements Review (maps to the traditional Software Specification Review)

• Architecture Review (maps to the traditional Preliminary Design Review)

• Design Review (maps to the traditional Critical Design Review)

Note that the product, technique, criteria, and metrics related aspects of these reviews are addressed in the Rational Unified Process itself and instantiated in the Evaluation Plan section of the SDP. The Review and Audit Plan section of the **Quality Assurance Plan** concerns itself with the Joint (customer and developer) Review aspects; for example, artifacts required, responsibilities, conduct of the review meeting, pass or fail criteria.

• Functional Configuration Audit (to verify all requirements in the SRS have been met)

• Physical Configuration Audit (to verify that the software and its documentation are complete and ready for delivery)

• Process Audits

• Process Reviews

• Managerial Reviews (Project Approval Review, Project Planning Review, Iteration Plan Review, PRA Project Review)

• Post-mortem Reviews (Iteration Acceptance Review, Lifecycle Milestone Review, Project Acceptance Review).]

# Evaluation and Test

[This section references the Software Development Plan (Evaluation Plan section) and the Test Plan.]

# Problem Resolution and Corrective Action

[This section references the Problem Resolution Plan.]

# Tools, Techniques, and Methodologies

[A list of any tools, techniques, and methodologies that will be used when performing Quality Assurance activities.]

# Configuration Management

[This section references the Configuration Management Plan.]

# Supplier and Subcontractor Controls

[This section references the Subcontractor Management Plan.]

# Quality Records

[Describe the various quality records that will be maintained during the project, including how and where each type of record will be stored and for how long.]

# Training

[List here any training activities necessary for the project team to achieve the needs of the **Quality Assurance Plan**.]

# Risk Management

[This section references the Risk Management Plan.]