**Senior Project – Master Test Plan**

**Student:** Jonathan Flum

**Degree and Major:** Bachelor of Arts in Applied Computing, Business Concentration

**Project Advisor:** Prof. O’Neill

**Expected Graduation Date:** Indefinite

**Project Title:** Cognitive Trainer for Computer Science Professionals

**Test Plan Identifier:** Master Test Plan for Cog\_Trainer v1.0

**Introduction:**

The purpose of this test plan is to ensure satisfactory programmatic and design implementation of the functional, appearance, style, usability, and performance fit criterion identified within this project’s Requirements document. In addition, deployment of the application via GitHub pages will be conducted to a practical extent, ensuring reasonable user access and availability. Because a high level of system compatibility is expected to be achieved, permutations of specific hardware and/or software combinations other than the test configuration will not be evaluated and is out of scope for this plan.

**References:**

Project Repository: <https://github.com/jflum/CSU-Senior-Project>

Proposal: […/jflum/CSU-Senior-Project/blob/master/docs/Proposal.docx](https://github.com/jflum/CSU-Senior-Project/blob/master/docs/Proposal.docx)

Requirements: […/jflum/CSU-Senior-Project/blob/master/docs/Requirements.pptx](https://github.com/jflum/CSU-Senior-Project/blob/master/docs/Requirements.pptx)

**Test Items:**

• Cog\_Trainer v1.0

**Features to be Tested:**

• List the features of the software/product to be tested. (See requirements)

**Features Not to Be Tested:**

• List the features of the software/product which will not be tested.

• Specify the reasons these features won’t be tested. (Why are they out of scope?)

**Approach:**

• Mention the overall approach to testing.

• Specify the testing levels [if it’s a Master Test Plan], the testing types, and the testing methods [Manual/Automated; White Box/Black Box/Gray Box]

* + Unit Test Plan
  + Integration Test Plan
  + System Test Plan
  + Acceptance Test Plan

**Item Pass/Fail Criteria:**

• Specify the criteria that will be used to determine whether each test item (software/product) has passed or failed testing. (also in requirements document)

**Suspension Criteria and Resumption Requirements:**

• Specify criteria to be used to suspend the testing activity.

• Specify testing activities which must be redone when testing is resumed.

**Test Deliverables:**

• List test deliverables, and links to them if available, including the following:

o Test Plan (this document itself)

o Test Cases

o Test Scripts

o Defect/Enhancement Logs

o Test Reports

**Test Environment:**

Hardware: Dell Precision-5550

* CPU: Intel(R) Core(TM) i7-10750H CPU @ 2.60GHz
* GPU: NVIDIA Quadro T1000 4.0 GB
* RAM: 32.0 GB

Operating System: Windows 10 Pro

* Version: 21H2
* Build: 19044.2251
* WFE Pack: 120.2212.4180.0

Integrated Development Environment (IDE): Unity Professional

* Version: LTS 2021.3.16f1

Internet Browser: Google Chrome

* Version: 109.0.5414.120 (64-bit)

**Estimate:**

• Provide a summary of test estimates (cost or effort) and/or provide a link to the detailed estimation.

**Staffing and Training Needs:**

Project Manager (professor)

* Required skills: IT Project Management, to include Development, Integration and Deployment
* Additional training required: none

Software Engineer (student)

* Required skills: Foundational CS courses including procedural programming, object-oriented programming, and data structures, e.g.
* Additional training required: none

**Responsibilities:**

Michael O’Neill

* Review, advise, and approve specified project deliverables.

Jonathan Flum

* Develop testing methodologies, prepare and conduct evaluations, document results, perform analysis, determine corrective actions, and implement programmatic/design changes, as required.

**Risks:**

• List the risks that have been identified.

• Specify the mitigation plan and the contingency plan for each risk.

**Assumptions and Dependencies:**

• List the assumptions that have been made during the preparation of this plan.

• List the dependencies.

**Approvals:**

Michael O’Neill shall have final approval/acceptance of project deliverables.

**Schedule**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **Description** | **ECD** | **STATUS** | **Comments** |
| 1. | **Plan** |  |  |  |
| 1.1 | Draft Proposal | 02/28/22 | Complete | Deliverable |
| 1.2 | Draft Proposal and Requirements | 03/31/22 | Complete | Deliverable |
| 1.3 | Completed Proposal and Requirements | 04/12/22 | Complete | Deliverable; fork Sr. Project Repo and add documents, update readme |
|  |  |  |  |  |
| 2 | **Build** |  |  |  |
| 2.1 | Data/Objects | 02/20/23 | In progress | Primary class for information sets |
| 2.2 | User Interface | 03/20/23 | Not Started | Input/output considerations |
| 2.3 | Functional Loop | 04/03/23 | Not Started | Cradle-to-grave sequence |
| 2.4 | Graphic Design | 04/10/23 | In progress | Display formatting, responsiveness |
| 2.5 | “Significant Progress” | 04/25/23 | Not Started | Deliverable; current state of above |
|  |  |  |  |  |
| 3 | **Test** |  |  |  |
| 3.1 | Create Test Plan | 03/20/23 | In progress | Deliverable; partially identified in FRD, user task/process oriented |
| 3.2 | Test & Document | 04/10/23 | Not Started | Generate specification punch list and order by priority |
| 3.3 | Clear backlog | 04/25/23 | Not Started | Finalize any outstanding product implementations |
|  |  |  |  |  |
| 4 | **Deploy** |  |  |  |
| 4.1 | Package and deliver | Fall 2023 | In progress | Deliverable; host application on GitHub Pages |
| 4.2 | Evaluate | Fall 2023 | Not Started | Identify lessons learned, best practices, extendibility, etc. |
| 4.3 | Defense Documentation | Fall 2023 | Not Started | Deliverable; Final Report |
| 4.4 | Project Presentation | Fall 2023 | Not Started | Deliverable |