**Cloud Lab**

**Project Plan**

# **Introduction**

The purpose of the Cloud Lab System is to provide a drag-and-drop interface where you create and configure a lab, with the ability to make multiple copies of the lab to accommodate the number of students who will be using it. Using AWS cloud services and web access via a desktop or laptop.

# **Project organization**

The team for this project consists of 3 students from Charles Sturt University Jayden Hawkes, Alex Hathaway, and Jayden Aislabie. There will be significant overlap in the responsibilities of each member however the primary roles of the team members are Frontend Developer (Jayden Aislabie), Backend Developer (Jayden Hawkes), and Design/Testing (Alex Hathaway). The communication channels that are being used on this project are Discord for text and audio call communication, as well as zoom for video calls with the primary stakeholder.

# **Project practices and measurements**

The development team will be utilising iterative development practices, specifically the unified process. The progress of project iterations will be recorded using iteration status assessment documents to evaluate whether or not the iteration was successful in designing, developing, or testing the intended feature.

# **Deployment**

This project will implement a Ramped (rolling-update or incremental) strategy to deploy the software and any updates, as this will limit the number of users who are exposed to any potential bugs. The update can then be rolled back and fix before attempting another push.

# **Project milestones and objectives**

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| **Subject** | **Phase** | **Iteration** | **Dates** | **Primary objectives** (risks and use case scenarios) |
| ITC303 – Software Development Project 1 | Inception Phase | I-1 | 15/03 – 28/03 | Establish Vision  Establish Initial Use Case Model  Establish Initial Domain Model  Establish Critical Core Use Case  Identify Candidate Architectures/Technology Platforms  Identify Development Environment/s |
| I-2 | 29/03 – 11/04 | Initial Project Vision  Initial Requirement Model  Document Proposed Architecture  Establish Risk List  Establish Initial Master Test Plan  Establish Initial Project Plan  Create Technology Competency Demonstrator/s  Complete Inception Phase Project Assessment  Deliver Life Cycle Objectives Milestone (LCOM) |
| Elaboration Phase | E-1 | 12/04 – 25/04  (Session Break) | Mitigate Highest Priority Risk(s)  Conduct AWS services training  Implement Highest Priority Architectural Element(s) to Support CCRD Use Case (Creating lab template)  Complete Unit Testing for Highest Priority Architectural Element(s) |
| E-2 | 26/4 – 9/05 | Mitigate 2nd Highest Priority Risk(s)  Implement 2nd Highest Priority Architectural Element(s) to Support CCRD Use Case (Creating lab template)  Complete Unit and Integration Testing for 2nd Highest Priority Architectural Element(s) |
| E-3 | 10/05 – 23/05 | Mitigate 3rd Highest Priority Risk(s)  Implement 3rd Highest Priority Architectural Element(s) to Support CCRD Use Case (Creating lab template)  Complete Unit and Integration Testing for 3rd Highest Priority Architectural Element(s)  Deploy Executable Architecture in Trial Environment  Complete Internal User Acceptance Testing for CCRD Use Case in Trial Environment |
| E-4 | 24/05 – 6/06 | Revise Project Vision  Revised Requirement Model  Revise Risk List  Revise Master Test Plan  Revise Architecture  Revise Project Plan  Complete Elaboration Phase Project Assessment  Deliver Life Cycle Architecture Milestone (LCAM) |
| Mid-year Semester Break | | | | |

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| Mid-year Semester Break | | | | |
| ITC309 – Software Development Project 2 | Construction Phase | C-1 | 10/07 – 23/07 | Implement 2nd Highest Priority Use Case (Deploying lab template to students)  Complete Unit and Integration Testing for 2nd Highest Priority Use Case (Deploying lab template to students)  Complete Internal User Acceptance Testing for 2nd Highest Priority Use Case (Deploying lab template to students) |
| C-2 | 24/07 – 6/08 | Implement 3rd Highest Priority Use Case (Modify an existing lab template)  Complete Unit and Integration Testing for 3rd Highest Priority Use Case (Modify an existing lab template)  Complete Internal User Acceptance Testing for 3rd Highest Priority Use Case (Modify an existing lab template) |
| C-3 | 7/0 – 20/08 | Implement 4th Highest Priority Use Case (View a students current instance)  Complete Unit and Integration Testing for 4th Highest Priority Use Case (View a students current instance)  Complete Internal User Acceptance Testing for 4th Highest Priority Use Case (View a students current instance) |
| C-4 | 21/08 – 3/09  (Session Break) | Contingency  Deliver Initial Operational Capability Milestone (IOCM)  Complete Construction Phase Project Assessment |
| Transition Phase | T-1 | 4/09 – 17/09 | Deploy Application in Trial Environment  Complete 1st Round External User Acceptance Testing  Resolve Any Identified Issues |
| T-2 | 18/09 – 1/10 | Complete 2nd Round External User Acceptance Testing  Resolve Any Identified Issues |
| T-3 | 2/10 – 13/10 | Contingency  Deliver Product Release Milestone (PRM)  Complete Final Project Assessment |