G5

PROJECT DOCUMENTATION

Project Plan

Aerial Imagery Initiative

Index

Introduction

This Project Plan will outline, in some detail, the plan, current skillset, practices and organizational structure that our team intend to use, to fulfill the requirements of our project. Additionally, we will explore the techniques used to plan, develop and implement the various iterative components, assessing risk, with a strong focus on our key deliverables.

Project Organization

Team Introduction

Our individual roles and responsibilities throughout this project, are initially outlined during our Team Charter (as available on Group 5's Team Wiki). In summary, our team consists of the following:

- Adam Blewitt - Our primary Wiki Editor and secondary Git Advisor, working as a Systems Integration Specialist, with a wide range of expertise, ranging from data management, computer networking and programming.
- Cameron Nyberg - Our primary Git Advisor, employing various levels of git and programming knowledge, to guide our workflow.
- Darren Sheehan - Our secondary Wiki Editor and vetted programming & project managing member, with over 9 years of experience in the corporate IT environment.
- Andrew Smith - Our secondary Style Advisor, with tested experience in programming and databasing as well as a budding interest in machine learning, through his exploration and work with artificial neural networks.
- Patrick Funnell - Our primary Style Advisor with seasoned experience in technical consulting, management, programming and problem solving.

Our communication channel for both text and voice will be Discord, throughout the duration of this project. A link to our push communication method can be found on our Team Wiki.

Project Brief

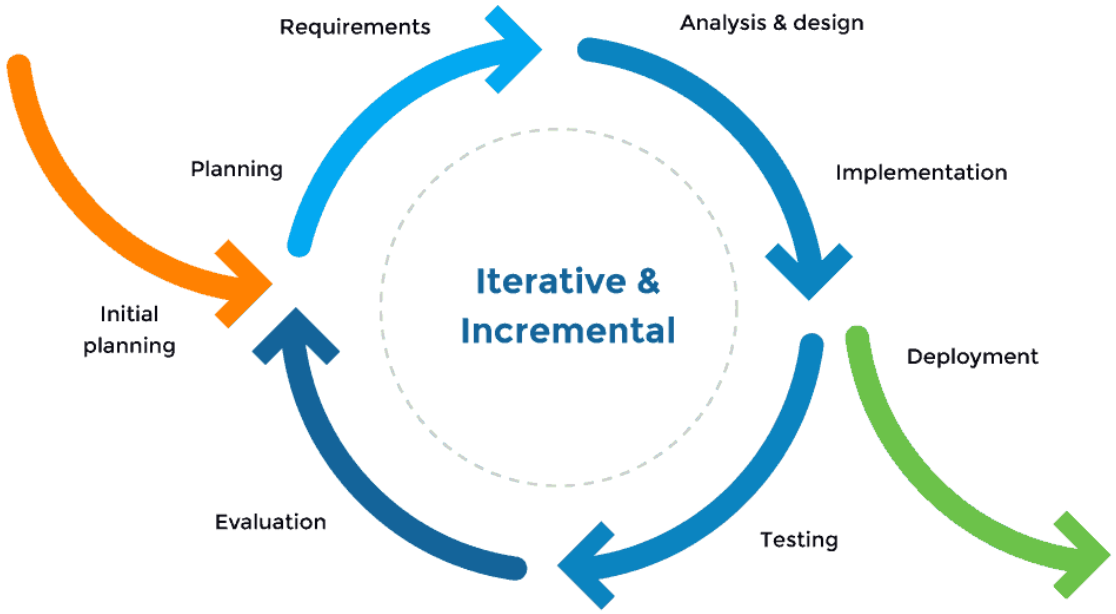
In order for our team to embark, down the path to completing our Spatial Services project, we must all complete our Foundational Pearson VUE AWS Certification.

An outline, including some background on the project can be found via our Project Proposal.

Project Practices & Measurements

Development Practices

Our project will use the iterative & incremental development process, wherein high level requirements can be realised, prioritised, planned, tested & implemented. This process will enable us to separate functional components and create necessary iterative changes, to ensure a satisfactory end product.



Our objective is to identify individual components of the project and devise an implementation approach that solves key problems, such as building a Machine Learning Model and efficiently processing large images, independently.

Our approach to planning can be discrete and realistic targets and goals for individual features of the project can be tracked, developed and reviewed. Our review process will require that another engineer (separate from those that are writing and submitting a code change), review and approve code for deployment.

Tracking Progress

During our iteration planning phase, features and functional objectives for our use cases can be identified, planned and delegated to a team member (or team members).

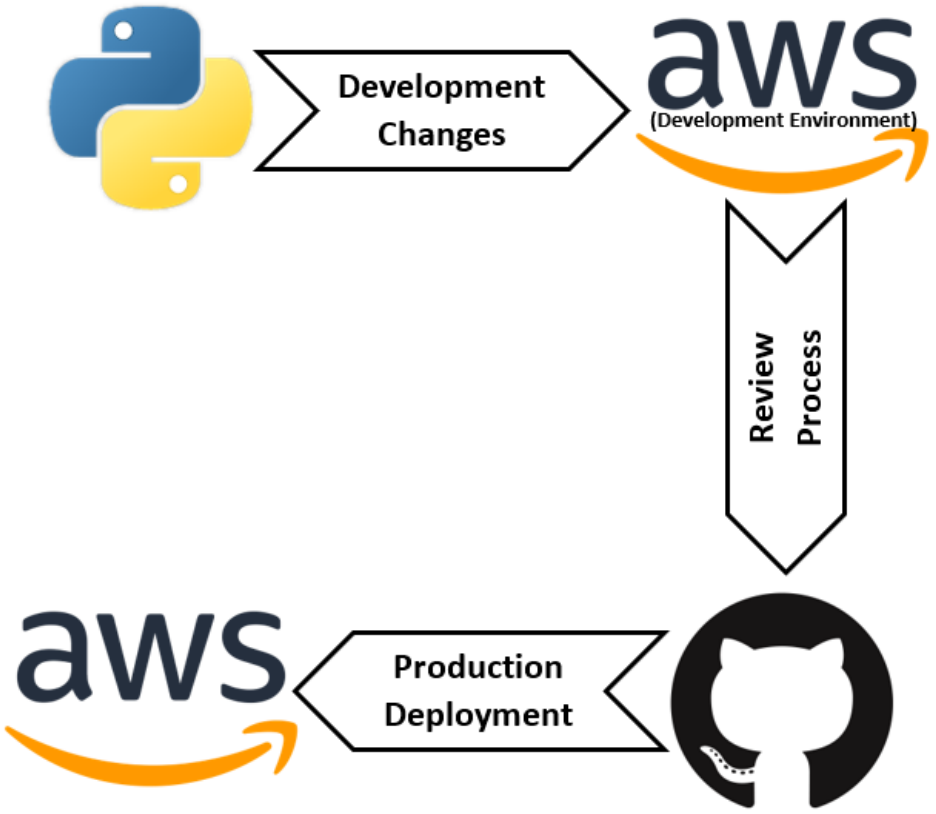
As part of our planning, we will set goals for when our functional objectives will be implemented, as well as smaller milestones, that will assist in tracking progress and identifying any potential help areas, to assist in keeping the iteration on track.

These milestones will enable our team to gauge whether we are falling behind, or require assistance and will also enable the team to report status to any stakeholders, if required.

Deployment

Our primary method for deploying updates, as well as establishing new features and implementing them outside of a final production solution, is through Git. Amazon provides some documentation on this integration, in their source control docs.

By using Git, we enable the ability for major systematic changes, through separate branches, that don't change or affect the master branch, before going through the Git review process.



Project Milestones & Objectives

Subject	Phase	Iteration	Dates	Primary objectives (risks and use case scenarios)
ITC303 – Software Development Project 1	Inception Phase	I-1	16/03 – 28/03	Establish Version Control Understanding of Project Requirements & Resources Elaborate & Establish Project Vision Validate Project Feasibility Define Project Plan Establish Risk List Define & Document Team Technical Competencies
		I-2	16/03 – 12/04	Complete AWS Certification Research AWS Technologies Gather High Level Business Requirements
	Elaboration Phase	E-1	13/04 – 23/04 (Session Break)	Meet with DCS Gather Requirements from DCS/Intellify Establish Initial Use Case Model
		E-2	24/4 – 7/05	Full Outline of Requirements Provided by DCS Establish Technical Competency Demonstrator Complete Inception Phase Project Assessment Review & Finalise Documents Deliver Life Cycle Objectives Milestone (LCOM) Mitigate Highest Priority Risk(s): • Team Cohesion • Schedule • Technical Competency
		E-3	8/05 – 21/05	Establish Iteration 3 Plan Outline Objectives for LCAM Establish/Finalise Meetings with James/Intellify Educating with SageMaker/OpenCV

		E-4	22/05 – 2/06	Contingency Deliver Life Cycle Architecture Milestone (LCAM) Complete Elaboration Phase Project Assessment
Mid-year Semester Break				

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ITC309 – Software Development Project 2	Construction Phase	C-1	10/07 – 23/07	Identify Checkpoints for Image Processing Identify Checkpoints for Flood Area Classification Implementation Initiate Development Mitigate Risk: Development delays
		C-2	24/07 – 6/08	Evaluate Progress
		C-3	7/0 – 20/08	Finalise Development Complete Testing
		C-4	21/08 – 3/09 (Session Break)	Contingency Deliver Initial Operation 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

References

Tech Target. (2011). *Iterative Development*. https://www.digital.nsw.gov.au/policy/cloud-strategy-and-policy/cloud-policy

Plutora. (2020). *Software Development Life Cycle (SDLC): Making Sense of the Different Methodologies*. https://www.plutora.com/blog/software-development-life-cycle-making-sense-of-the-different-methodologies

Title page cover photo.
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