

**PROG6001 Managing Software Development Projects**

**Group 1 - ASSESSMENT 2**

**Group No:** \_1\_\_

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# Acknowledgement

“Acknowledging the use of assistance of OpenAI (ChatGPT) in generating ideas and structuring the parts of this project and general information regarding collaboration using GitHub and Jira.”

# PART A: Collaboration Development Using GitHub

# Introduction

Real time payments are being the most basic things in banking system in this modernized world. The quickest way to transfer like send or receive money in seconds is by OSKO or the new Payments platform in Australia, which is mainly called Pay ID. Pay ID is a setup which the bank uses the mobile number or email address to transfer money from one person to another person’s account which will be linked to their own bank accounts. However, there are many advantages of pay ID meanwhile it can go wrong when typing the Pay ID number or email address, which can lead the money to go somewhere else.

To solve this problem, the bank has come with a new solution called the Pay ID scanning feature. This system which makes payments go easily which the customers must enter only the value of transaction, and all other details will be automatically filled by scanning. This solution will not only increase user experience but will make all payments secure and quick. To meet customer expectations user interfaces and digital infrastructure should be improved continuously which is required nowadays in Australia (Pillai, 2023). The aim to simplify payment processes and to reduce transaction errors are the main thing in this proposed scanner.

In order to successfully develop this project, team is required to collaborate using collaboration tools like “GitHub” and “Jira”, which is demonstrated in the document below, where developer team will showcase successful collaboration and development of the project using both collaboration tools for communication throughout the development process.

# Creating Repository and Initial Setup

Creating Repository and initial setup of project in GitHub was assigned to Team Leader as per the report guidelines. Similarly, inviting team members as contributors and adding document file of the project report to the repository, and finally merging the changes to the main repository.

* Created GitHub repository for project PayID-Scanner with name PayID-Scanner-Group1, added README.md file with information of the project.

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* Invited team members to the GitHub repository to contribute to the project

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* Added report file to the repository and made a pull request for team members.

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# Forking and Individual Contributions

Member 1’s Contribution:

* Created the repository named “ PayID-Scanner-Group1” and initialized with README.md file, along with project report document file.
* Updated report file with required table of contents and pushed into the main branch of the repository.
* Updated readme.md file with heading and general description of the project and pushed changes to the main repository.
* Further contributed to the project following the task allocated in Jira.

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Member 2’s Contribution:

* Forked PayID-Scanner-Group1 repository successfully.

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* Cloned the repository to the GitHub desktop.

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* Created branch feature – autofill

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Member3’s Contribution:

* Forked PayID-Scanner-Group1 repository successfully.

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* Cloned the repository to the GitHub desktop.

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* Created branch feature – autofill

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# Merging Changes into Main Repository

* Members 2 and 3 were assigned to create branch with feature-autofill and feature-UI, both members 2 and 3 pushed changes to the created branches. Member 1 merged the branch feature-autofill and feature-UI with the main branch of the repository.

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* Changes from both members 2 and 3 were merged to the main branch of the repository by member 1, and further changes were made.

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* Member commits and contributions to the project.

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# Tasks Allocation and Sprints in Jira

Team Leader (Member 1) allocated tasks among team members and created 2 weeks sprint in Jira for systematic completion of the project and team collaboration.

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# Conclusion

In conclusion, the above report summarizes that the team successfully collaborated through collaboration tool “GitHub” and “Jira” and completed required tasks as per the guidelines. Member 1 created and initialized the repository in GitHub, where member 2 and 3 performed the allocated tasks respectively. The included screenshots provide the evidence of collaboration among team members and completion of tasks on time depending upon the Sprint created in “Jira”. Task was allocated equally among 3 team members and time was allocated as per the tasks. Each member forked the main repository and made changes to their local repository, which was later pushed to the main branch and merged with the main repository.

# Part B: Request for Proposal (RFP)

**Aussie Business Buzz (ABB)**

**Integrated Business Management System**

**Date Issued:** March 20, 2025

**Submission Deadline:** April 7, 2025

**Contact:** Timmy Higgins, Procurement Manager, [procurement@abb.com.au](mailto:procurement@abb.com.au)

# Purpose of RFP

The purpose of this RFP is to get software development firms, solution providers to get feedback for design, development and implementing the software and to invite quality vendors of an Integrated Business Management System for ABB.

With 4 different locations of branch and many more to come, ABB is a well growing Australian technology retail and business service. This system will be a major tool in ABB`s business around the 4 branches, which will be improving customers engagements, providing easy usage to management, and giving stock and repair management excess.

ABB`s main functional requirements offer bigger growth in future which is provided in the solution. Off the shelf solutions, Software as a Service, Hybrid approach or custom-built software’s in this RFP may be included in proposals.

The successful proposal will clearly show an understanding of the objective of the business, a proper way of implementing and full support, training how to use it and maintenance service which will be covered within a low budget solution, flexible and a system which allows integration with third party services which the ABB was looking for.

# System Description

The ABB is looking for a system to connect all 4 of their branches in a single system and include to add their new branches when opened. Customer relationship management, tracking reports, reporting, marketing and including managing relationships in customers must be allowed in ABB`s proposed system to centralize and put in order critical business functions.

The key functional in the proposed system are Customer relationship management which maintains a main place in database for all customer details, and which can get all information of purchases in every branch, details all problems like the device repairs, customer problems and work performed and repair statuses and mainly which gives a quick history when staffs search for any stuffs.

And then the next function is the Marketing system which supports social media things and emails, set targets to achieve a goal while looking the purchase and history of service, letting to get expected future customer details from the data collected through the ABB website and meet specify standards with required privacy and data protection laws. And another function is the inventory management which manages products and parts, and which allows to have look whether other branches got stock if there’s none in the location which the customer arrives in, get an alert message if stocks go low and get into the wholesaler’s page to reorder the item.

The rest feature is the reporting and managing dashboard which gives business analytics which includes sales, levels of stock status of repair, gives access of all stock in every branch in a single place and allows to create custom reports as customer`s needs.

The main consideration of the system must be scalable, modulated and user friendly with hybrid deployment or cloud which is secured, if applicable the existing system must be in a similar system with the proposed system. The system to be used in any location which includes central and branch level functions, and mobile or tab or any portable devices for staffs will be useful and helpful.

# Proposal Evaluation

Aussie Business Buzz (ABB) will systematically evaluate each, and every proposal submitted, evaluating and determining the optimal solution, providing value to both organisational goal and budget. Below are the basic criteria of evaluation of submitted proposals:

* Proposals are expected to be budget friendly and demonstrate competitive initial.
* Proposed solution must align with the organizational existing system and compatible with the current website and record of stock. If one proposes a replacement of the system, a justification with possible evidence must be provided.
* The proposed system must be able to expand up to 4 or more branches seamlessly.
* The system must have simple and clean user interface where staff will require minimal training.
* Suppliers capable of providing training and troubleshooting, will be given higher preferences.

As long as the proposed system ensure long-term value, along with scalability and flexibility, it will be considered. This way, the requirement of ABB in developing a custom system, leveraging the innovation for inter-branch stock management or off-the-shelf database for efficiency will be achieved. Following the above procedure will provide the proposal with balanced approach and align with the main objective of this RFP. For example, in order to address the required repairment of inventory in specialized approach of ABB, bespoke stock management system can be effective rather than software-as-a-service(SaaS) marketing solution for continuous integration. A hybrid model providing flexibility might be a better option by integrating both custom and commercial elements.

# Question Handling

Aussie Business Buzz will make clear guidelines and procedures for general questions asked and will be answered, making the RFP process smooth and fair for everyone.

Vendor Questions and Clarifications Process:

Transparency is the thing we will maintain with vendors; vendors may seek clarifications regarding the RFP, but to make it work, we will follow some guidelines and procedures. All the queries of vendors will be required be submitted via email.

We will make a list of all the queries received from vendors and make a list of questions anonymously. Sharing the list with vendors via email and keeping them on the ABB website will help all the vendors. And will be setting a deadline for questions, only answering the queries that we will receive before the deadline. ABB encourages all the questions and answers to be clear and concise.

# Additional Information

Additional Information to help vendors understand ABB better and craft relevant, competitive proposals:

To maintain high-quality and relevant proposals, ABB offers the following information:

* What we offer on a current infrastructure is a hybrid cloud environment using Microsoft 365 and has limited in-house development capabilities.
* Systems should be capable of integrating with the existing website of ABB, emails, and POS systems, which are already in the stores. These can be our integration requirements.
* All the solutions must meet Australian Privacy Principles and must provide user access control and data encryption for customers. This is part of security and compliance.

# Part C: Software Project Management Methodologies

# Introduction

Selecting the correct project management methodology as software development continues in engaging in scope and quality is hard to make sure of a positive outcome. Customer Relationship Management system has been developed for a new launched technology product. The collection of practices, strategies, and resources used by companies to monitor and assess customer information and interactions across the customer lifecycle is known as customer relationship management (Barney et al., 2025). This will be moved to global banking institutions which requires functionality in high standards like security and scalability.

In this project Scrum methodology has been selected, a well-known method that places a focus on incremental growth, customer participation, and continuous improvement. Why Scrum was selected but not the waterfall technique the CEO was curious to know. As this project refers both the methodologies, getting focused on the main concepts, disadvantages, and advantages. When comparing the specific requirements of the CRM system the waterfall and scrum methodologies are mentioned as difficulties which will arise in the development lifecycle. The project may give us ideas to develop known decision making for upcoming development projects by comparing and examine various views.

# Overview of the Agile Mindset

The Agile mindset is a new method of developing software that focuses flexibility, teamwork, and change-responsiveness. Agile focuses creating value through incremental and iterative development rather than strict planning and stages, allowing teams to adjust based on ongoing feedback.

There are four values, and twelve principles mentioned in Agile mindset which is mentioned in Agile Manifesto. They are Individuals and interactions over process and tools, working software over comprehensive documentation, Customer collaboration over contract negotiation and responding to change over following a fixed plan (Beck et al., 2001).

Agile creates a culture of openness, trust, and continuous development by encouraging teams to self-organize and take ownership of the work. Everyday stand-ups, Reviews and planning regularly happens in Agile teams to make sure everything goes right.

Requirements can change in entering user inputs, regulations including compliance or objectives in business where financial institutions for CRM system such as for projects which are changing and the complicated once. These methods can be very helpful. To make sure that the outcome gives the best value and relevance Agile lets to collaborate and change nearby to stakeholders.

# Scrum and Waterfall Methodologies

**Scrum:**

Scrum is an agile framework utilized in the development process to organise the iterations into time-boxed manner known as sprints which lasts around 2-4 weeks. Scrum is a lightweight framework used to generate value through adaptive solutions for complex problems by people, teams, and organizations. Scrum Team consists of mainly three parties: Developers, Product Owner and Scrum Master. Developers are the ones who creates the aspects of each sprint, the sprints backlog, and sprint’s goal. Product Owner are responsible for maximizing the outcome from the work of the scrum team which requires, explicitly communicating the product goal, communicating product backlog, ordering backlog items and ensuring the transparency. Scrum Masters are the true leaders who establishes Scum. Scrum Master is responsible for keeping the Scum Team within the Scrum framework and making them improve its practices. Also, they are responsible for helping Scrum Team focus on developing high value increments that meet the Definition of Done (*Scrum Guides*, 2020). Scrum provides the adaptability feature, due to which it is suitable for dynamic projects, where the requirement of the user may vary as the system evolves.

**Waterfall:**

Waterfall methodology is a sequential, well-established project management workflow, where five different phases cascades downward sequentially like a waterfall. Stages of waterfall are requirements, design, implementation, verification, and maintenance. Requirement phase states the objective of the project, design phase develops a solution to meet the requirement, implementation phase builds the system with specifications, verification phase verifies the quality of the developed system, and maintenance phase is for addressing any issues that arises after releasing the system to users. In waterfall methodology one phase must be completed before proceeding to another method which doesn’t allow flexibility to the team. Due to its clear project structure, it provides a sight to end goal which favours in use of this methodology. In waterfall model there is less cross-functional work where team can easily track the progress of development faster (Atlassian, n.d.). Despite the linear credit for this model, these advantages make developers to use this model in their development process.

# Guidelines for Methodology Selection

Complexity, clarity of requirements, client involvement and some more things play a vital role when selecting a software development methodology. Both scrum and waterfall are good on their own terms; based on the nature of the project, their suitability depends.

Scrum: Most projects are divided into 2 types where end goals are defined, and end goals are not clearly specified in the beginning or when the requirements would likely involve in the future. Its main application is the development of complex products and systems. It is more of an empirical process. This process ensures optimum productivity and results in greater control over any risks that may arise, and this is only possible when using two approaches: iteration and incrementation (Gurnov, 2024).

Waterfall: Waterfall is best applied to projects with well-defined goals, fixed scope, and minimal changes in requirements. Waterfall is a linear process where every phase needs to be completed before moving on to the next one. This model works best in environments where compliance, documentation, and predictability are critical—such as in defence, construction software, or highly regulated industries. Waterfall works best if the client has a strong requirement for an open project plan from the start and interaction can be restricted only to review milestones (Gurnov, 2022).

# Conclusion

In conclusion, we can clearly identify both Scrum and Waterfall methodologies having benefits in their own ways providing a development process to any system. Scrum being project management methodology for the project providing flexibility and adaptability. Waterfall method provides with structure, cost effectiveness and upfront clarity but lacks behind in adaptability and flexibility. Therefore, having information regarding the projects’ needs and constraints can lead to a better decision of choosing development methodologies. However, some projects will even value a hybrid approach combining both waterfall method’s rigorous planning and Scrum’s adaptability together to develop a better system.

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