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| **Project Methodologies** | **Core approach** | **Pros** | **Cons** |
| Waterfall | A fixed set of phases, where each phase must be completed before moving to the next phase | Waterfall outlines a clear project structure; this demonstrates clear cost and goals. Due to the fixed nature of the methodology, tracking is linier and easier. The upfront planning approach also minimises risk factors as most of them are accounted for in the initial planning phase. Waterfall approach also expects fewer delays that can occur from additional requirements. | Due to the fixed nature of the methodology its benefit can also be a drawback depending on the nature of the project. Project s that requires continual interactions with end users and the team to review current direction and course correction do not fit in the waterfall approach. Its fixed approach is ultimately limiting flexibility. |
| Scrum | Working quickly and collaboratively while promoting an environment that allows changes during the development cycle | The scrum framework is the suggested approach for software development projects that prioritises customer needs constantly changing throughout the development lifecycle.  The phases of this approach are broken down into sprints.  Once a sprint is completed review and feedback commence to improve the efficiency of the next sprint. | Due to the agile approaches being constantly changing and reviewed after each sprint, limitation on resource planning can occur due to the unclear end object. In most cases, the dev team can only have sight on a few sprints ahead.  Agile is also difficult to measure due to its nature of change which can also result in scope creep. |
| Lean | A methodology that focuses on maximising efficiency by reducing waste and continually looking for workflow improvements | Lean methodology is a sublet of agile workflow, leans emphasise on reduction of waste in the product development phase. Lean project management requires continuous improvement to all development lifecycles. | The inverse of consistently focusing on reduction of waste can result in losing sight of the scope. This approach also is more reactive than proactive as waste reduction occurs as they are identified which can cause prediction of demands to be challenging. |

Project Management Methodology or Approach. Explain the chosen project

management methodology and provide a WBS (PM methodology) that identifies

phases and key activities (including project handover). Include a rationale and

justification for why the choice matches the purpose or goal of the project. What

phases/tasks/deliverables does it involve? Why does this chosen approach suit this

particular project, team and client? Ensure that all material you use is appropriately

referenced using APA 7 (i.e. you should be referencing a resource that your team will

refer to during the project's lifecycle).

## Project Methodology

Following the SDLC lifecycle the chosen framework for project management methodology is a hybrid approach of agile and waterfall. Dubbed the agile-waterfall hybrid model, it combines certain elements of each to best suit the requirements of this project being undertaken. Taking elements of documentation process found in waterfall and the irritative sprints for the evaluation process.

## Rational/Justification:

The choice of a hybrid approach has been carefully reviewed after considering all types of projects management methods along with the different subsects of Agile. Waterfall was a method evaluated for this project, but it had clear drawbacks due to its fixed structure which didn't allow for changes and adjustments requested by clients or supervisor and agile lacked the documentation process that this project requires.

The objective and goals of this project showcase evaluation on three different OS systems set up as software routers being tested against a range of packet sizes, due to the nature of the various variables, review and adjustments are predicated to occur which given the hybrid model allows us to undergo along with key documentation to document findings and avoid scope creep.

Provide a table of different methods and compare and contrast. The pragraph should be only an explanation of the reason for selecting the method