

The relationship between requirements, testing and the maintenance of a working version of code.

Requirements are needed for code to be written so that the developers know what they are coding for and what they can expect to build around testing needs working code to test and maintenance of code needs tested code to fix bugs/ security concerns and development needs maintenance of working code to fix bugs/patch security concerns. They all rely on each other

Under stressed conditions such as management suggesting they release a product early this may cause a conflict of priorities such as whether in the limited time you should complete a requirement; make sure something isn't bugged or fix a security concern

- The order in which you did the work and what you would do differently if you could do it again. Remember that, in this assessment, you need to prioritise the database architect.

I used the waterfall method This involves doing all of your planning and research at the start then designing the solution then implementing the solution then doing the testing once all functionality has been written then deploying the software (adobe 2022) this was useful in that I could work out what the system needed all at the beginning so that I can now work on my code knowing how everything intertwines with each other However if I used a different method such as agile which prioritises responding to change over following a plan Wambler, S. (2011) I could have altered my requirements as I worked so that it could fit in line with how the development was going which could have led to more efficient software production

- The notion of “batch size” (i.e. how many items are being worked on at the same time).

As this system has 1 developer, the batch size is 1 but batch size can also refer to the scale of each item being worked on. For my sliced user stories I would say they are adequate size but my unsliced use cases are a bit too big. If a batch size (No. of items being worked on) is too small then that could mean that development time could be increased causing delays/ if its too big however, then some developers may be left waiting for an item to be completed so they can start their item if the batch size (size of item) is too small you could have multiple developers working on a small piece of code and working to understand the code written about it when the same person could understand it easier and if its too big then you would have to wait longer for code essential for the rest of the product to be merged

- Based on your experiences from this assessment and previous projects, what is your personal preferred process for managing, documenting and communicating

I feel I liked how waterfall made me consider how everything would intertwine before I wrote a single line of code. However in a setting with multiple people (which is the norm) with more people means there are chances of human errors from misinterpreting each other that would be easier to remedy by altering a requirement to fit the remedied solution. And if there was an issue in agile then we could just add that as a new item whereas if we had an issue with the planning in waterfall we would need to rewrite the planning section.

## bibliography

Waterfall methodology: Project management | Adobe Workfront (2022). Available at: <https://business.adobe.com/blog/basics/waterfall> (Accessed: March 22, 2023).

Wambler, S. (2011) Waterfall methodology: Project management | Adobe Workfront, Examining the Agile Manifesto. Available at: <http://www.ambysoft.com/essays/agileManifesto.html> (Accessed: March 22, 2023).

gitlab link - [https://git.cardiff.ac.uk/c22063583/supergeeks\\_yo](https://git.cardiff.ac.uk/c22063583/supergeeks_yo)

## non functional requirements

### scalability

This means that as more people use the system it can still function as if less people are using it. It's not the most necessary as you could wait to do your task at a different time but they may decide it's not worth it to come back. This nfr is that the user should be able to do complete join a wait queue for 100 users successfully. I would say this would be the least important of the ones I have picked out as the user could simply complete their task at a different time to complete their task. However, this does not mean it is useless as they may not come back.

**security** We need to make sure that the data stored on students is secure and in the event of a data loss, the criminal accesses as little data as possible, which is why I will use hashed passwords so that in the event of data loss as little data will be lost as possible. I would say this is the second most important as while not including it wouldn't immediately get the business shut down from fines if there was a data leak and encrypted or even plain text passwords were found among the data, it would severely damage our relationship with our customers at best and make us receive business ending fines at worst.

**privacy** Privacy is important as the people who you give your data to may not be qualified to store it safely. This is why users should be able to request to have their data removed (if they are not actively in a group). This is probably the most important as in order to comply with GDPR regulations, the user

should be able to request to remove their data so I would say this is the most important as without it we are not operating within the law

performance Performance refers to how much computing power/time it takes to complete a task This nfr is when the user applies to join a group they should be told the result of their application within 10 seconds I would say this is the 3rd most important as we are a tech company having slow software will set bad expectation for people applying