# Literature Review:

## Introduction:

There is currently a need for the critical care unit to start prioritising patients who need to see a dietitian because there are insufficient resources for every patient to see a dietitian and the patients who need to see a dietitian the most may currently miss out. This is because it is very difficult for the critical care unit staff to efficiently prioritize patients.

So, developing a feeding dashboard which will flag the patients who need to see the dietitian, will aid the staff significantly, optimising and increasing healthcare resources due to less time needed to prioritize patients this will make sure that patients with a greater need get the help required.

## Tools and methodologies:

The tool we will use to plan this project is Astah UML, Astah UML is a program which allows for the creation of UML diagrams like the use case diagram. Using UML helps to define the scope of the project abstracting it into easily digestible sections. (Fernández-Sáez, Chaudron and Genero, n.d.)

The reason we chose Astah UML to do this is because Astah UML is written in Java so it will run on any device, allowing for team members on a Mac to contribute to creating UML diagrams.

The tool we will use to manage this project is Gitlab, Gitlab is a version control software which stores a project in a repository, Using Gitlab will allow multiple team members to simultaneously work on the project at the same time while avoiding conflicts because changes to the same file are merged (Perez-Riverol *et al.*, 2016), this will make collaboration easier between team members and make developing the project much easier.

The software development methodology we are going to use to manage this project is a modified version of Scrum an agile software development methodology, using an agile software development methodology allows for easier collaboration between team members and stakeholders (Karrenbauer, Wiesche and Krcmar, 2019) this means that if the requirements change during the development life cycle we can adapt. We are using a modified version of Scrum because the Scrum methodology includes daily meetings called daily Scrum (Schwaber and Sutherland, 2020), allowing us to modify it into 2 weekly meetings instead, this will help the team collaborate while easily fitting it in with our timetables.

## References:

Fernández-Sáez, A., Chaudron, M. and Genero, M. (no date) *Exploring Costs and Benefits of Using UML on Maintenance: Preliminary Findings of a Case Study in a Large IT Department* [online]. Available from: <https://ceur-ws.org/Vol-1078/paper4.pdf>.

Perez-Riverol, Y. *et al.* (2016) Ten Simple Rules for Taking Advantage of Git and GitHub. Markel, S., ed. *PLOS Computational Biology* [online]. 12 (7), p. e1004947. [Accessed 1 July 2020].

Karrenbauer, J., Wiesche, M. and Krcmar, H. (2019) Understanding the Benefits of Agile Software Development in Regulated Environments. *Wirtschaftsinformatik 2019 Proceedings* [online]. Available from: <https://aisel.aisnet.org/wi2019/track07/papers/5/>.

Schwaber, K. and Sutherland, J. (2020) *Scrum Guide | Scrum Guides* *Scrumguides.org*. November 2020 [online]. Available from: https://scrumguides.org/scrum-guide.html.

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