**1 Future oriented organization**

For this learning outcome it is important to see how you can develop software that is future proof. To make sure of this you also need to pay attention to the non-functionals involved in the development process. Such as performance and availability.

What are actions that are needed to ensure this?

IP:

Look into what non-functionals are important to make my application as future proof as possible.

Look into hosting my application somewhere that contributes to availability

Create designs/ architecture for my application that is compliant with enterprise software

GP:

the same as with the individual project.

My process:

During the start weeks of the semester I looked into what non-functionals are important to make sure my application would be comparable to an enterprise level application [@Non-functionals](https://portfolio.drieam.app/portfolio/evidence/159777/versions/latest) (FreeText). Besides that I also looked into Architectural Patterns and Scalable architectures, and made notes on what I found [@Investigation into Architectural Patterns & Scalable Architecture.](https://portfolio.drieam.app/portfolio/evidence/106881/versions/latest) (Pdf). What kept occurring in this search, is that performance (being able to handle a lot of requests and traffic to and from your application) is really important. Besides that, when there is a lot of traffic, it is not outrageous to think that your application might fail at some point due to the large amount of requests. Therefore availability is also very important.

Besides that I also divided my application in microservices, determined by an event-storming session and architecture diagrams [@Event Storming Process](https://portfolio.drieam.app/portfolio/evidence/106854/versions/latest)(Picture). This event storming was done at the start of the semester, so I have changed my application a bit, because that idea was complicating things to much, but would not proof any learning outcomes, so I have changed it to something like this event storming [@Event Storming Updated Concept](https://portfolio.drieam.app/portfolio/evidence/159815/versions/latest) (Picture).

Besides that I did some research into what cloud platforms are best for hosting your application [@Group Research - Cloud Services](https://portfolio.drieam.app/portfolio/evidence/159226/versions/latest) (Pdf) . The top 4 that I investigated where, Google Cloud, AWS, Azure and Oracle Cloud. The first three where leaders in the current cloud market, and I added Oracle to this comparison because my project is coded in Java, and Oracle would support that well.

Like provided with this learning outcome there is a chart that proves that Google Cloud is the best answer to the hosting question. And the reason why is included as well.

The biggest reason is also how I deploy my application, and that is that Google Cloud comes with its own Kubernetes cluster [@Scalable environment: Google Kubernetes Engine (GKE)](https://portfolio.drieam.app/portfolio/evidence/156891/versions/latest) (Video).

For the group project this process is mostly the same, we had a session for event-storming and created architecture diagrams. Besides we deploy to Google Cloud as well.

As a software developer we encounter a lot of problems along the way of creating an application. Such as bugs, configuration issues and use of packages that work a little different than from what we thought. Therefore it is important that you solve these problems with a good mindset. You look into docs and try different things to get it to work. This using a methodical approach. Besides that you are critical on what products you deliver, quality is important and you show your best efforts.

For researching things it is important to make use of the DOT framework to be found at [ictresearchmethods.nl](http://ictresearchmethods.nl/)

Here you can find methods to help answer and validate your answers to your questions.

What are actions that are needed to ensure this?

IP:

Research based approach to problems

Little researches looking into best practices or the best stack to use in a specific context.

GP:

Group research

Critical but fair approach to your groups work.

Communication

My process:

I always try to work with a structured approach, since this way I keep a good oversight of what is left to do for myself [@Semester Progress Tracking](https://portfolio.drieam.app/portfolio/evidence/159436/versions/latest) (Excel). Besides that I always look at my own work with my critic glasses on. So I won’t just justify work, just because I made it. I want it to be good and, first of all, make myself proud of my work and second my teachers.

To determine what stack I should use, I have done some smaller researches during the semester. These are to be found under the different learning outcomes. There is one looking into performance indicators for example [@Performance indicators for my project.](https://portfolio.drieam.app/portfolio/evidence/106893/versions/latest) (pdf).

Besides that I am also working on my research for my personal project on the side.

For the group we also have a research that I have worked on a lot. Using the DOT framework [@Research Imani](https://portfolio.drieam.app/portfolio/evidence/132815/versions/latest), [@Group Research - Cloud Services](https://portfolio.drieam.app/portfolio/evidence/159226/versions/latest) (Pdf's). Besides that I always think about ways to improve or execute solutions for our group work. We communicate our ideas clearly and can talk about it in a way that improves our product in the end.

For each sprint delivery I have done a delivery presentation, these presentations can be found here -> [@Imani's presentaties](https://portfolio.drieam.app/portfolio/evidence/159943/versions/latest) (Powerpoint)

Our group also had regular peer reviews with the Canvas tool, where you can see how my group experienced my work ethic. [@Peer review. Role Group](https://portfolio.drieam.app/portfolio/evidence/107055/versions/latest), [@Peer review 2](https://portfolio.drieam.app/portfolio/evidence/159441/versions/latest), [@Peer review 3](https://portfolio.drieam.app/portfolio/evidence/159443/versions/latest).

Lastly, I also looked into the "Technology Readiness Level" and wrote a little document about what I believe the steps are and the link to the context of this semester [@Technology Readiness Level](https://portfolio.drieam.app/portfolio/evidence/159748/versions/latest).

This learning goal is important in every semester and I always want to make sure I improve this in every semester as well.

Besides that it is important to recognize where one’s strong qualities lie. And how to use those in the software development process.

What are actions that are needed to ensure this?

IP:

Communicate clearly with teachers and coaches on where improvement opportunities lie.

Talk through the development process with others to trigger discussions about important characteristics of the semester to see how others approach certain problems and learn from that.

GP:

Everyone should (in my opinion) once have been the scrum master for the project. This educates a person in how to command a group and see if you have oversight about the project. Besides this is good to improve leadership in general and creates confidence in yourself.

Be responsible for your work in the group project. Everyone has a responsibility to work on their tasks and communicate about them or ask help on time.

My process:

During this semester I’ve kept track of my personal leadership development in the context of making sure I know what has to be done [@Personal goals to ensure I develop personally during this semester.](https://portfolio.drieam.app/portfolio/evidence/80902/versions/latest) (FreeText). I’ve created a clear overview for myself where I can see what I have done for a learning outcome, what my teachers score me on an outcome and a place where I can write up remarks for certain parts of an outcome [@Semester Progress Tracking](https://portfolio.drieam.app/portfolio/evidence/159436/versions/latest) (Excel).

Besides that I have conversations with my teachers and semester coach to see what is expected of me to improve my product. This is visible in the FeedPulse entries I made during the semester (<https://fhict.instructure.com/courses/12912/external_tools/1067>).  
When I get tips or critical advice I take it or ask what or how and make sure I incorporate it to my best ability.

In the group context it is important that you contribute and work appropriately for your role. Everyone should work following the agile guidelines that come with scrum and communicate accordingly with the scrum master and the other group members.

What are actions that are needed to ensure this?

IP:

Have talks with teachers and semester coach about your software process and products.

GP:

Be scrum master at least once (in my opinion).

Work in an agile way, using scrum.

Be available and pro-active.

Following group rules (working days and start times).

Be a team player

My process:

I have regular talks with my teachers and semester coach and record my feedback using FeedPulse. After these talks I use the feedback given to improve my software products.

I’ve also been our groups scrum master once to try leadership with this group and in my opinion that went well and we made some good progress. If I myself am not scrum master I still make sure things follow the agile guidelines as best as I can in that position and try to help when needed. Besides that I am always available for my group members and communicate clearly which tasks I am working on, this is also made visible by me on our scrum board which I update when needed. I don’t sit around and wait for a task to find me. When I have finished one task, I communicate with my group members what task should be completed next.

My performance in the group can has been evaluated by my peers as well, for those comments I will redirect you to the following peer reviews -> [@Peer review. Role Group](https://portfolio.drieam.app/portfolio/evidence/107055/versions/latest), [@Peer review 2](https://portfolio.drieam.app/portfolio/evidence/159441/versions/latest), [@Peer review 3](https://portfolio.drieam.app/portfolio/evidence/159443/versions/latest) (Screenshot Canvas).

With my good availability also comes that I follow the rules we set. Monday and Thursday are group days and we start working around 9am.