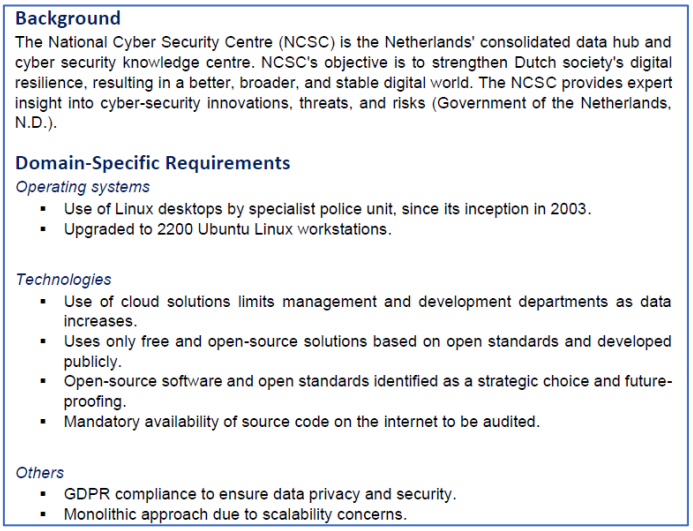
Individual Reflection

Our team was recruited as an IT Software Consultants and Developers to implement an application for an organisation with domain-specific requirements. The project was divided into two sections: The Design Proposal Report and the Coding Output. Our team members were Marzio, Sebastian Keir and myself.

As soon as the group was formed, we started communicating with each other through WhatsApp. And, since we were from different time zones, we decided to meet at a specific time to be equitable to each other and to discuss the project's tasks and progress on a regular basis. We shared our expertise and technical skills with each other and completed the contract agreement during our first meeting on Google Meet. Furthermore, we established three key rules for our team to follow: first, each member will be assigned to a specific task; second, each team member will be given the opportunity to host a meeting; and third, the deadline for submitting the draft for peer review should be adhered to as much as possible. Nonetheless, since we are all professionals, we were lenient with the third rule.

Subsequently, following our first meeting, each team member was given an individual task to analyse the various proposed domains from the assignment, and we were able to agree on the Dutch Police Internet Forensics (Government of the Netherlands, n.d.) as our chosen domain for our assignment. After the domain was chosen, each of us had our own part to complete for the Design Proposal Report, and my assignment was to write the background of the Netherlands' National Cyber Security Centre (NCSC) as well as a list of domain-specific requirements. As a result, I focused on the operating systems, technologies, and additional requirements currently used by the Netherlands' NCSC Internet forensics department for domain-specific requirements. A screenshot of my contribution to the Design Proposal Report is shown below.



Background

The National Cyber Security Centre (NCSC) is the Netherlands' consolidated data hub and cyber security knowledge centre. NCSC's objective is to strengthen Dutch society's digital resilience, resulting in a better, broader, and stable digital world. The NCSC provides expert insight into cyber-security innovations, threats, and risks (Government of the Netherlands, N.D.).

Domain-Specific Requirements

Operating systems

- Use of Linux desktops by specialist police unit, since its inception in 2003.
- Upgraded to 2200 Ubuntu Linux workstations.

Technologies

- Use of cloud solutions limits management and development departments as data increases.
- Uses only free and open-source solutions based on open standards and developed publicly.
- Open-source software and open standards identified as a strategic choice and future-proofing.
- Mandatory availability of source code on the internet to be audited.

Others

- GDPR compliance to ensure data privacy and security.
- Monolithic approach due to scalability concerns.

Figure 1 - Individual Contribution for Design Proposal Report

After the submission of the Design Proposal Report, we started working on the implementation of our proposed system which would allow authorised employees to search, amend and create entries for the suspect sources database. Similarly, the implementation phase was divided into various sections, with each team member being assigned to one of the tasks after completing the previous task. As a result, we agreed to use the Trello platform to track our task's implementation progress. Our assigned task was generated as a ticket, and were constantly updated as the task progressed. Hence, writing the blueprint of the system's prompt messages, writing the system's Terms and Conditions, including its Privacy Policy, and updating the README file to explain the applied solution and guidance on how to execute the code were the various tickets allocated to me for the second part of the project. The screenshots below are my contribution to the Coding Output.

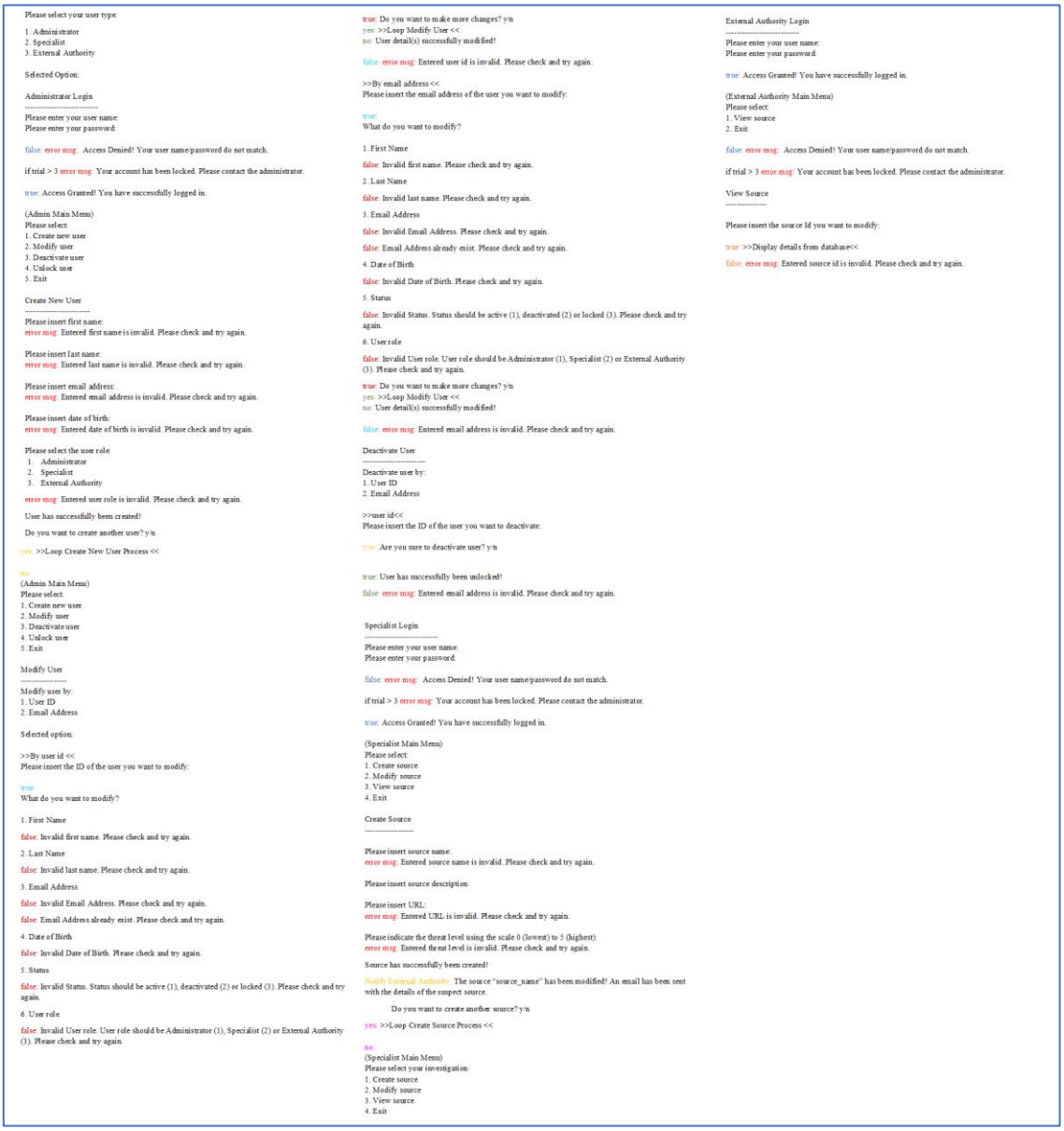


Figure 2 - Prompt Messages of The System Blueprint

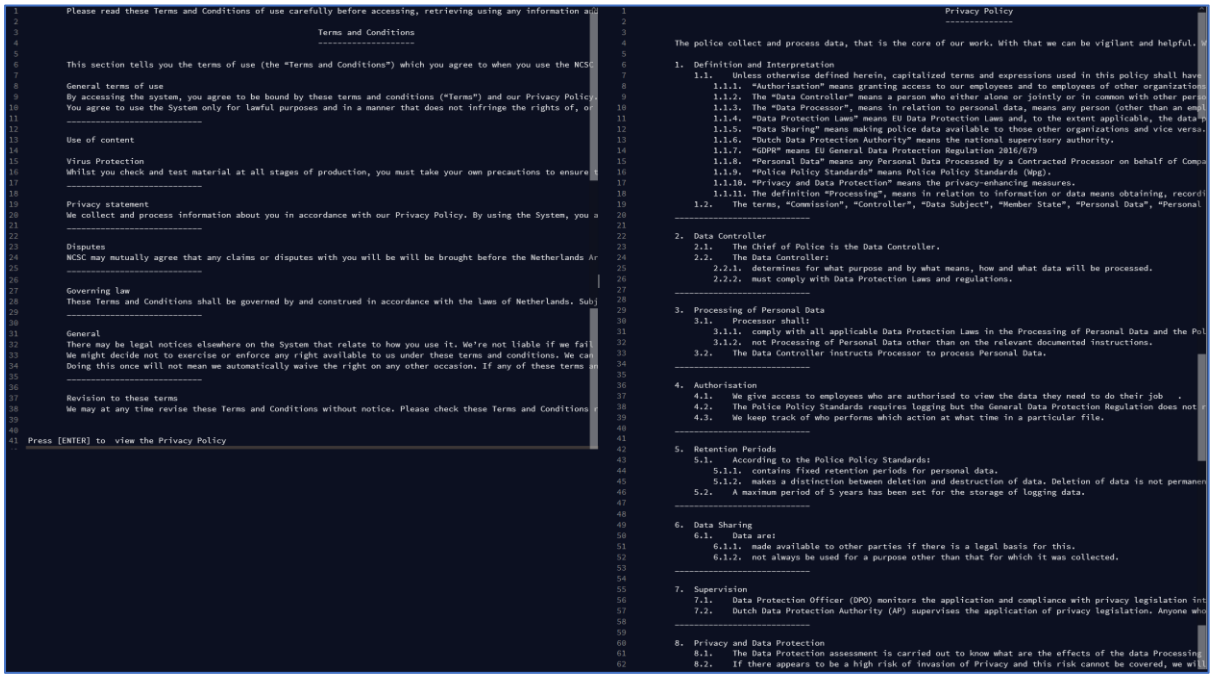


Figure 3 - Terms and Conditions and Privacy Policy of the system

Figure 4 –Part of the system's README file

Now I would like to highlight our team's strengths to be immensely understandable, well-organized and respectful of each other's personal and professional responsibilities. Additionally, each individual's commitment to the project's success could be seen in the fact that we accomplished our assigned task on time. However, about halfway through the group assignment, we learned of Keir's decision to drop out, and we had to re-distribute the tasks. On the other hand, as previously mentioned, we all had the opportunity to host a meeting, which improved my leadership abilities. Likewise, by using the Trello platform, we were able to keep track of the progress of the project and ensure that each team member was aligned with the project's objectives, that we initially set. When the Design Proposal Report feedback

claimed that several sections were misplaced in the report, I understood the significance of understanding report structure, and I would state that this was the only flaw of our team.

Consequently, for the README file of the Coding Output part, we ensured that the same error did not occur again by drafting all the sections which would need to be mentioned in the file and posted it on the Trello platform to closely supervise the structure. Eventually, for future team development projects, I will certainly use the same organised approach, which will help me and other team members to better monitor and understand the progress of the project. Furthermore, this project has assisted me in fully comprehending the basic principles of Secure Software Development methodologies, such as analysis, program design, software construction and testing in the software development. If ever I am given a project like this to develop in my career, I would be more secure in being an effective member of the development team rather than confining myself to a particular role. (Example Reflective Essay using Rolfe Reflective Model, 2021).

References

Sharma, A. and Bawa, R., 2020. Identification and integration of security activities for secure agile development. International Journal of Information Technology,.

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