

Reflection

During this module, I worked on a group project. Our task was to produce a report describing the design and evaluation of such a system rather than building a product. The project explored how intelligent agents could automate literature searches, extract information, and store it efficiently. It was ambitious, relevant, and improved both my technical knowledge and teamwork skills.

At the start, I took the initiative to contact all team members and create a WhatsApp group to organise communication. This was difficult because the project began during the summer break, and several members were travelling. I worried we might fall behind schedule, but once everyone joined, collaboration improved. I coordinated meetings, clarified deadlines, and reviewed the report for accuracy and consistency. My perfectionism helped maintain quality, though I realised it sometimes created pressure. Nevertheless, this focus ensured that our final report was coherent and well presented, which gave me a strong sense of satisfaction.

Working with an international team was rewarding but emotionally demanding. As the only woman and the only person from a different cultural background, I was initially anxious that my ideas might not be valued. Fortunately, my teammates were respectful and cooperative, which made me feel fully included. Our collaboration followed Tuckman's (1965) model of group development. The forming stage was uncertain, but once we established regular discussions, we moved into the norming and performing stages, where everyone contributed actively. Jasim and Ali played key roles in maintaining communication and completing their parts on time. Their reliability

reduced my anxiety and allowed me to focus on coordination and editing rather than worrying about progress.

My emotions changed during the project. I began impatient and worried but later became more confident and motivated. There were stressful moments near deadlines, especially while I was travelling, yet I stayed engaged through our group chat. The experience showed me that teamwork relies on empathy as much as efficiency.

According to Kolb's (1984) experiential learning cycle, I learned most by reflecting on my own actions. I discovered that my perfectionism, while useful, could cause tension if not balanced with flexibility. By the end, I valued trust and collective progress more than absolute precision, which I now see as an important step in personal and professional growth.

My main contributions were organisational and editorial. I helped ensure that the report was logically structured and references were consistent. I also reviewed sections written by others, suggesting improvements so the document would read as one cohesive piece. This process developed my communication and analytical skills and encouraged me to think more deeply about the topic. I became particularly interested in how intelligent agents collaborate and began to imagine how our proposed system might operate in practice. Although our final product was theoretical, the process helped me appreciate the complexity of designing intelligent systems.

For my individual deliverable, I developed my own code based on the ideas explored in the group project. While our group work focused on design, the individual task required creating a functioning example, so I implemented a simple Python script to simulate an agent capable of automated searches and basic data extraction. I wrote a Python script

to simulate an agent capable of automated searches and basic data extraction. This part of the module was extremely enjoyable because it turned the group's ideas into something tangible and allowed me to apply my creativity. At first, I faced a technical problem when Visual Studio Code stopped working due to a corrupted Python extension. I felt frustrated but switched to the Anaconda prompt and Jupyter Lab. It looked unfamiliar, but I adapted quickly and was proud of my persistence. The experience taught me to stay calm when issues occur and to find practical solutions rather than waiting for ideal conditions.

While coding, I noticed a clear improvement in my debugging skills. Having not programmed for a while, I often made syntax errors, but I learned to identify and correct them systematically. The individual project transformed theoretical knowledge from the group work into hands-on experience. For the first time, I could see how an intelligent agent might collect, process, and store information. I also reflected on the ethical and practical aspects of such systems. Intelligent agents are powerful but depend on good-quality data and responsible design to avoid bias or misinformation. These insights deepened my understanding of the topic and made me more aware of the responsibilities of those who develop AI systems.

Before this module, I knew little about intelligent agents beyond the term itself. Through research and practice, I learned that agents are autonomous systems that perceive their environment, reason, and act towards goals (Russell and Norvig, 2021). I found it fascinating how multiple agents can coordinate tasks and communicate asynchronously. Understanding these mechanisms gave me a realistic view of the challenges of designing such systems, including computational cost and scalability.

Reading about multi-agent systems and then creating a simple version made abstract theory concrete. I now appreciate how theory and application reinforce one another in the learning process.

The most important lessons I took from this experience concern balance, confidence, and consistency. I learned that teamwork succeeds when communication is open and expectations are realistic. My perfectionism ensures quality, but it must be combined with patience and trust. Technically, I realised that programming skills improve only through regular practice, so I plan to code more often to strengthen my abilities. The project also motivated me to continue exploring intelligent agents, as I now understand their potential to transform research and data management. In the future, I hope to develop more advanced systems that could support academic work or automate everyday tasks. This project has given me the confidence to approach such challenges with curiosity and perseverance.

Overall, this module combined theory, technical learning, and personal growth. It strengthened my understanding of intelligent systems, improved my problem-solving skills, and increased my confidence in teamwork. Most importantly, it showed that artificial intelligence involves not only algorithms but also people and communication, leaving me motivated to continue studying this field.

References

Kolb, D. (1984) *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs: Prentice Hall

Rolfe, G., Freshwater, D. and Jasper, M. (2001) *Critical Reflection for Nursing and the Helping Professions: A User's Guide*. Basingstoke: Palgrave Macmillan.

Russell, S. and Norvig, P. (2021) *Artificial Intelligence: A Modern Approach*. 4th ed. Harlow: Pearson

Tuckman, B. W. (1965) *Developmental sequence in small groups*, *Psychological Bulletin*, 63(6), pp. 384–399