

## **Product vs Project Risks**

The first hurdle approached by the team was the systematic separation and prioritisation of risks by importance and impact. The aim of our group was to prioritise product risks that could directly affect the reliability, security and coherence of the Hospital Management System. Before resolving project risks as they appeared.

A frequently occurring product risk was how to integrate AI without introducing security flaws into the HMS System. The use of AI poses risks such as incorrect assumptions, incomplete understanding of system requirements, and potential oversight of healthcare-specific security constraints. Given that the system processes highly sensitive medical and patient data, even small security flaws could lead to unauthorized access, regulatory non-compliance, and malicious actions. To mitigate this risk all AI integration was treated as advisory rather than authoritative, with final decisions and validations performed by human staff members. Additional safeguards included adherence to secure design principles and avoidance of AI involvement in safety-critical decision making.

On the other hand, a Project risk we had during the report was issues with group allocation. As team members were allocated rather than self-selected. This leads to imbalances in technical skills, familiarity of software engineering methodologies, and individual availability. These differences increased the risk of misdistributed workloads, delays in completion of interdependent parts, and miscommunication between the team. The overall lack of familiarity between group members introduced coordination overhead, especially during early planning and task allocation. To mitigate this risk, the team established clear role assignments, timelines, and expectations regarding individual contributions. Regular meetings to conduct progress checks and reviews of each other's work helped to identify coordination issues early on. Managing the project risk helped ensure that development milestones were met without negatively impacting the final hospital management system design.