# Ethical Requirements Report for SUE data platform

By: Mohammed Bouali, Calvin Kwan, Andrei Pipeline, Björn Wildeman

For: Group project SUE data science platform Advanced software

# Introduction

Our team recognized the importance of addressing ethical considerations to create a product that responsibly meets user and societal needs. This report summarizes our approach to identifying ethical requirements, the results of our analysis, and how these requirements are embedded as non-functional components in our project.

## 1. Process: Gathering Ethical Requirements

To compile our ethical requirements, we started by researching standard ethical considerations in technology projects, especially in areas that overlap with our project’s goals and scope. We reviewed relevant literature, industry standards (like GDPR for data protection), and case studies to understand common ethical challenges. Additionally, we held internal discussions to brainstorm potential ethical risks and considered feedback from initial user testing. This is important so we can answer one our research question ‘How can we ensure that our software solution is GDPR compliant?’

Our approach centered on identifying ethical themes relevant to our project, such as privacy, security and transparency. By aligning our ethical requirements with these themes, we developed a structured list that guides our non-functional requirements.

## 2. Results: Ethical Requirements List

Our analysis produced the following ethical requirements, each accompanied by strategies to address these considerations in our project.

### Privacy and Data Protection

**Requirement:** Respect user privacy through secure and transparent data handling practices.

**Solution:** Implement encryption for data storage and transfer, limit data collection to necessary fields, and give users control over their data. Clearly communicate data practices in our privacy policy.

### Transparency in Decision-Making Processes

**Requirement:** Ensure that any system decisions affecting users are explainable and understandable.

**Solution:** Provide clear information on how decisions are made, especially in features where algorithms or automation play a role. This includes accessible documentation or tooltips to guide users.

### User Control and Autonomy

**Requirement:** Give users control over their data and settings within the application.

**Solution:** Allow users to manage their data, including deletion option. Follow GDPR compliance as a standard.

### Security and User Safety

**Requirement:** Protect users and their data from unauthorized access, breaches, and misuse.

**Solution:** Employ secure coding practices, keep dependencies up to date to prevent vulnerabilities, and enforce strong authentication methods. These practices are designed to provide a safe experience without compromising usability.

## 3. Integrating Ethical Requirements as Non-Functional Requirements

These ethical requirements are integrated into our project as non-functional requirements, ensuring they guide our development beyond purely functional goals. Privacy and security standards, for instance, inform our design decisions for data management, while transparency requirements shape our approach to user communication. By framing these ethical standards as non-functional requirements, we ensure they remain integral to our project’s quality and structure, reinforcing our commitment to responsible design.

# Conclusion

Our team recognizes the value of an ethical approach in developing SUE data platform, emphasizing privacy, transparency, and fairness. By proactively addressing these ethical aspects, we are committed to creating a product that not only performs its intended functions but also upholds responsible and ethical standards in technology.