FORMAN CHRISTIAN COLLEGE (A CHARTERED UNIVERSITY)

COMP 401 B

SP24

Ethics for Computing Professionals

Assignment 1

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COMP 401: Ethics for Computing Professionals

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As a DevOps engineer at Arbisoft, my role involves bridging the gap between development and operations teams to streamline the software delivery process. I oversee infrastructure configuration, deployment management, automation tool implementation and upkeep, and system performance monitoring. Proficiency in a variety of technologies is required for this, including:

- Version control systems such as Git.
- Continuous integration and continuous deployment (CI/CD) pipelines
- Configuration management tools and monitoring and logging tools
- Containerization technologies
- Cloud platforms
- Scripting languages – Python, Java, and C++
- Knowledge of software development methodologies like Agile and Scrum.

Serving clients, assisting my company, working with other professionals, supervising employees, and making a beneficial impact on society are just a few of the many facets of my job. Concerns about ethics are crucial in each of these domains.

Responsibilities towards Clients, Employers, Other Professionals, Subordinates, and Society:

Responsibilities

Clients:

- Provide dependable and effective software solutions that satisfy customer requirements.
- Continue to communicate project updates and deliverables in an understandable and consistent manner.
- Offer constant assistance and swiftly respond to any queries or comments.
- Guarantee the privacy and safety of their information.

Employers:

- Contribute to the company's objectives by developing high-quality software.
- Keep up with emerging technologies and trends in the industry.
- Preserve the company's good name by acting in a professional manner.

Other Professionals:

- Work well along with coworkers and other departments.
- Exchange expertise and help colleagues advance their careers.
- Honor colleagues' efforts and accomplishments.
- Avoid conflicts of interest and act in the best interest of the team and organization.

Subordinates:

- Provide guidance and mentorship to junior team members.
- Foster a supportive and inclusive work environment.
- Evaluate performance fairly and provide constructive feedback.

Society:

- Develop software that positively impacts the community.
- Advocate for ethical standards in technology.
- Engage in volunteer work or open-source projects.

Ethical Responsibilities

Clients:

- Make sure their interests are safeguarded in terms of the data processing and operation of the program.
- Refrain from making unwarranted promises about deliverables and deadlines.
- Communicate in a precise and open manner about any potential problems.

Employers:

- Avoid taking part in any activity that can go against the interests of the company.
- Preserve intellectual property and confidential information.
- Ensure actions align with company values and contribute to its success and reputation.

Other Professionals:

- Be mindful of other people's efforts and refrain from claiming too much credit.
- Preserve a polite and harassment-free work environment.

Subordinates:

- Encourage a culture of honesty and accountability.
- Avoid any form of discrimination or favoritism.

Society:

- When designing software, give accessibility and user privacy a priority.
- Contribute to sustainable practices in software development.

Practical Examples

Example 1: If a software engineer uses proprietary code from a previous employer in a new project without permission, they may face legal repercussions for both themselves and their current employers. This breach of ethics can damage the company's reputation and result in financial loss.

Example 2: Vulnerabilities may arise from ignoring software security best practices in order to fulfill a deadline. If misused, it might jeopardize user information and confidence, costing the business customers and possibly resulting in legal action.

Upholding professional ethics is essential for an individual's and an organization's success and reputation. Professional and legal consequences may be severe if these requirements are not met.

In summary, adherence to professional ethics is crucial for maintaining trust, integrity, and credibility as a DevOps engineer. Failure to uphold these standards can lead to severe consequences for both individuals and organizations, ranging from financial losses and legal trouble, to reputational damage and compromised cybersecurity. Therefore, prioritizing ethical considerations in all aspects of work is imperative.