

JSPM's

**Jayawantrao Sawant College of Engineering ,
Hadapsar , Pune -028.**

2024-2025

DEPARTMENT OF COMPUTER ENGINEERING

SUBJECT: CODE OF CONDUCT(COC).

Submitted By

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Class: S.E A

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Activity 1: Exploring Family and Professional Codes of Conduct

Date of Completion: 14/02/2025

Name of Student: Huzaifa Kamaal Khan

Purpose of the Activity:

The objective of this activity was to help students recognize the connection between the values we grow up with in our families and the ethical standards expected in professional environments. It aimed to build awareness of how personal conduct, shaped at home, often translates into workplace behavior and decision-making.

Detailed Process of the Activity:

Step 1: Understanding the Concept of a Code of Conduct

The session began with a short explanation about what a Code of Conduct means in different environments—whether at home or in a job setting.

It was explained as a framework of behavior standards and expected etiquette that guide actions in a given community or situation.

We were encouraged to examine our daily habits and trace their roots to the values instilled by our families.

step 2: Reflecting on Home-Based Values

We were asked to list common practices and beliefs in our household that promote respectful and ethical living. These were then linked to their relevance in professional life.

Here are a few practices I shared:

- 1. Greeting Everyone Upon Entering the Home**

This shows courtesy and inclusiveness.

Professional Connection: Greeting coworkers or acknowledging clients builds rapport and a positive team culture.

- 2. Helping with Household Chores Without Being Told**

Reflects initiative and a sense of responsibility.

Professional Connection: Taking ownership at work without waiting for instructions is a valuable trait in any job.

3. **Speaking Softly During Family Discussions**

Encourages listening and respectful conversation.

Professional Connection: Practicing active listening and calm communication in the workplace promotes better collaboration.

Step 3: Sharing Experiences and Learning from Peers

In groups, we talked about the codes we follow at home and how they've influenced our interactions with teachers, classmates, or coworkers in internships.

It was insightful to hear how despite cultural differences, values like respect, honesty, and time management are universal.

Step 4: Drawing Parallels Between Home and Office Ethics

Here's a comparison table we created during the session:

Family Habit – Related Workplace Behavior

Helping elders with tasks – Assisting senior colleagues

Being honest about mistakes – Owning up to errors at work

Respecting quiet/study time – Focusing during work hours

Cleaning after meals – Maintaining a clean desk/space

Not interrupting while others speak – Allowing others to voice opinions

This exercise helped us see that many workplace expectations are simply extensions of how we've been raised.

Step 5: Psychological and Social Perspectives

We learned from Bandura's theory that children learn behavior by observing those around them—especially parents.

According to Kohlberg's moral development theory, early lessons in honesty and obedience eventually help form strong moral reasoning in adulthood.

In essence, the home becomes our first environment for ethical development.

Step 6: Real-World Illustration

We discussed how the founder of a well-known tech company once attributed his respectful leadership style to his upbringing, where his father taught him to always treat workers and guests with equal kindness.

This showed us how home values can shape the tone of an entire organization when carried forward into leadership roles.

Outcome and Reflection:

1. I realized many qualities I associate with being "professional" are already a part of my personality, thanks to my upbringing.
2. The activity made me appreciate the long-term impact of small, consistent behaviors learned at home.
3. I became more aware of the silent teachings from family life that have prepared me for team settings.
4. Respect, time management, empathy, and honesty are values I now consciously aim to demonstrate at work or in academics.
5. I feel more confident in maintaining a strong moral identity, no matter the environment I'm in.

Conclusion:

This activity helped me understand that we don't have to wait to become professionals to start acting ethically. The behaviors we learn at home—like helping, respecting, and being responsible—form the foundation of our professional character. As I move ahead in my career, I intend to carry these values with pride and stay grounded in the ethics my family has taught me.

Activity 2: The Significance of Morality

Date of Completion: 15/02/2025

Name of Student: Huzaifa Kamaal Khan

Activity Summary/Reflection:

In this activity, we focused on understanding the importance of morality in professional life, particularly in situations where ethical behavior is tested. The method chosen for this exercise was role-playing, where we acted out a professional scenario to illustrate unethical behavior.

I participated in a role-play where an engineer, faced with a tough project deadline and lack of competence, decides to copy a colleague's work and claim it as his own. This situation represented an ethical dilemma where the engineer's personal ambition clashed with the need for honesty and integrity in the workplace.

As part of the role-play, I portrayed one of the colleagues who noticed the unethical behavior. In the scenario, the engineer's decision was driven by external pressures: the need for recognition, fear of failure, and the desire to avoid confrontation with his supervisor. Throughout the role-play, I observed how such actions could affect not only the individual involved but also the team and the broader organizational culture.

The most striking part of the role-play was when the supervisor praised the engineer's "work," unaware that it was plagiarized. This moment illustrated how unethical actions, when unnoticed, can lead to personal rewards, and how individuals may rationalize their dishonest behavior for personal gain. Meanwhile, the colleagues who knew the truth struggled with whether to speak out or remain silent, which added another layer to the ethical dilemma.

After the role-play, we discussed the situation in class, and the teacher introduced us to Kohlberg's and Gilligan's theories of moral development. Kohlberg's stages of moral development emphasize how individuals progress from simple obedience to rules to making

decisions based on universal ethical principles. On the other hand, Gilligan's ethics of care focuses on empathy, relationships, and care for others when making moral choices.

Through these theories, I gained a deeper understanding of the different moral stages people go through and how empathy for others can influence ethical decision-making. Kohlberg's model made me realize that the engineer in our role-play was likely at a lower stage of moral development, where actions are motivated by personal gain and avoiding punishment. Meanwhile, Gilligan's model highlighted the importance of considering the consequences of one's actions on others and the value of maintaining integrity, not just for oneself but for the well-being of the community as a whole.

Outcome Reflections:

This role-play made me reflect on how easily unethical actions can be justified under pressure. It also reminded me of how crucial it is to maintain ethical standards, even when faced with challenges that might tempt us to take shortcuts. I realized that the engineer's actions were not just a personal failure but also had potential consequences for the team, the reputation of the organization, and the trust between colleagues.

I also learned how bystanders—such as the colleagues who knew about the unethical behavior—can influence the outcome of a situation. If no one speaks up, the unethical behavior might continue unchecked. This made me think about my own responsibility in professional settings. It's important not only to avoid unethical actions but also to call out wrongdoing when it happens, even if it's uncomfortable or risky.

This exercise also gave me insight into my own moral development. In the past, I might have overlooked minor ethical lapses, thinking they were inconsequential. However, I now understand that even small unethical actions, when accumulated, can lead to significant moral erosion over time. I need to be more mindful of my decisions and consider the broader impact of my actions.

The theories we discussed also provided me with valuable tools for understanding why people act the way they do in unethical situations. Kohlberg's theory showed me that moral development is a gradual process, and people may act unethically due to their stage of moral reasoning. Meanwhile, Gilligan's approach highlighted the need for empathy and care

in making moral decisions, something that's essential not just in personal life but in professional life as well.

Personal Action Plan:

1. **Commit to Integrity:** I will strive to always act with honesty and integrity in all professional matters, avoiding shortcuts or dishonest practices, even when external pressures might make them seem tempting.
2. **Speak Out Against Unethical Behavior:** If I witness unethical behavior in the workplace, I will have the courage to speak up or report it, even if it feels uncomfortable. I will not be a bystander.
3. **Practice Empathy:** Following Gilligan's ethics of care, I will always consider the impact of my actions on others. This means thinking beyond my personal gain and focusing on the well-being of my colleagues and the organization.
4. **Continuous Moral Development:** I will continue to assess my moral development and strive to move beyond simple obedience or self-interest. I aim to make decisions that align with universal ethical principles such as fairness, justice, and respect for others.
5. **Foster an Ethical Environment:** If I assume a leadership position in the future, I will work to create a culture where ethics are prioritized, and where employees feel empowered to make morally sound decisions without fear of personal or professional consequences.

Conclusion:

This role-play exercise significantly enhanced my understanding of the importance of morality in professional life. It was a practical and engaging way to witness how unethical behavior can take root in a work environment and the consequences it can have on both individuals and organizations. By applying the moral development theories of Kohlberg and Gilligan, I now understand that morality is not just about following rules but also about considering the impact of our actions on others.

The exercise has made me more committed to making ethical decisions in my future career. I now recognize the value of integrity, empathy, and accountability in both personal and professional settings. Moving forward, I aim to hold myself to higher ethical standards and contribute positively to the ethical culture in any workplace

Case Study: The Columbia Space Shuttle Tragedy

Scenario

On February 1, 2003, NASA's Columbia shuttle disintegrated upon re-entry into Earth's atmosphere, resulting in the death of all seven astronauts aboard. The mission, known as STS-107, was a dedicated science mission with a 16-day agenda. Unbeknownst to the crew, a critical incident during launch had already set the stage for catastrophe.

Ethical Dilemma Faced by NASA

NASA's engineers and leadership faced a pivotal choice:

- Should foam strikes on the shuttle be dismissed as routine since they hadn't caused visible damage in prior missions?
- Or should every occurrence be thoroughly investigated, regardless of time or budget implications?



Procedural Timeline

1. Launch – January 16, 2003

Shortly after takeoff, a piece of insulating foam detached from the external fuel tank and struck Columbia's left wing. This damaged the heat shield tiles, which protect the shuttle from extreme temperatures during atmospheric re-entry. Although this was observed by engineers, they concluded—based on historical trends—that it posed no serious threat.

2. In-Orbit Operations – January 17–31, 2003

While the crew worked on scientific tasks in space, a few engineers raised concerns about potential damage. However, no formal requests were made for detailed imaging or alternate plans. The mission proceeded as if all systems were normal.

3. Re-entry – February 1, 2003

As the shuttle began its descent, hot gases infiltrated the left wing through the damaged area. The wing structure failed, leading to loss of control. Columbia broke apart over Texas, tragically ending the lives of its seven-person crew.

4. Post-Disaster Analysis

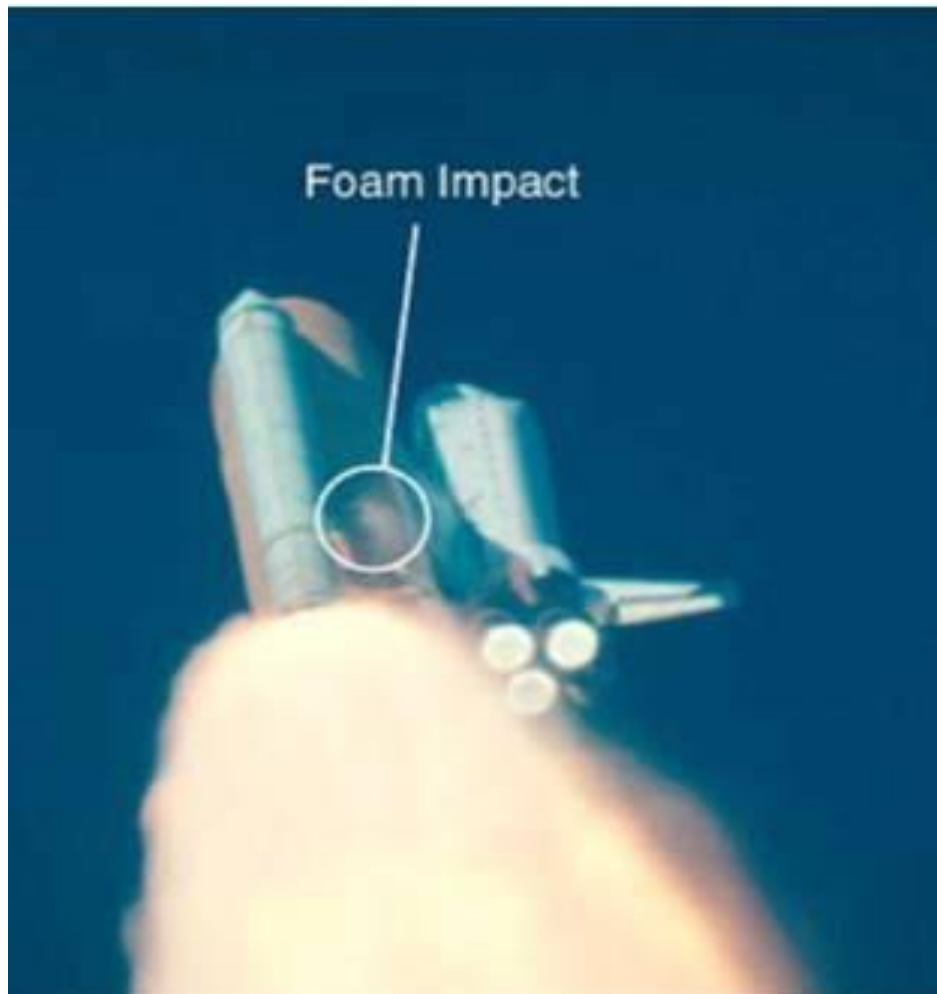
Investigations led by the Columbia Accident Investigation Board (CAIB) confirmed the foam strike as the trigger. However, deeper issues in NASA's safety culture were also blamed. Historical complacency and the normalization of past anomalies contributed to flawed decision-making.

Key Ethical Themes

- **Commitment to Safety:** The duty to protect human life must be paramount in every mission.
- **Open Communication:** Concerns must be acknowledged and addressed without fear or delay.
- **Organizational Responsibility:** Leadership must ensure a culture where ethical caution is rewarded, not discouraged.
- **Equity in Risk Assessment:** Even minor threats must be assessed with the same seriousness as major ones.

Reflections on the Tragedy

NASA's past successes with foam incidents led to a mindset that underestimated the danger—this is known as the *normalization of deviance*. Even when engineers doubted the situation, their warnings lacked influence. The Columbia disaster highlighted how ethical lapses in communication and evaluation can have irreversible consequences.



Lessons Learned

- No anomaly is too minor to investigate.
- A culture that encourages speaking up can prevent disasters.
- Ethical leadership is just as vital as technical skill.
- Repeating past behavior without scrutiny can lead to complacency.

Overall Insights

1. Responsible decision-making often requires going against the norm.
2. Ethical judgment must never be compromised by time constraints or external pressure.
3. Every team member's input is valuable and could be critical in high-stakes scenarios.

4. Ethics means anticipating harm and acting to prevent it—not just following a rulebook.



Conclusion

The Columbia accident was a sobering event that transformed how NASA approached safety and ethics. It underscored that when lives are on the line, proactive integrity and moral courage are non-negotiable. This case remains a powerful lesson in the importance of ethics in engineering and decision-making.

Activity 3: Essay Writing on Professional Virtues

Date of Completion: 28/02/2025

Name of Student: Huzaifa Kamaal Khan

Purpose:

The purpose of this essay writing activity is to explore how professional virtues like accountability shape a strong and ethical workplace. It helps students understand the

significance of personal responsibility in career growth and highlights how professional behavior builds trust, leadership, and success in collaborative environments.

Essay Title: Accountability – A Cornerstone of Professionalism

Introduction

In the modern professional world, where teamwork, deadlines, and decisions define success, accountability stands out as a vital trait. It is not just about taking the blame when things go wrong but about consistently owning one's duties and understanding the impact of one's actions. Whether you are a team leader or an intern, accountability forms the foundation of respect and credibility.

Main Body

Accountability influences workplace behavior in powerful ways. For example, when a project manager accepts responsibility for a delayed milestone instead of blaming others, it sets a tone of integrity and maturity. This honesty encourages others to take responsibility as well, creating a culture where problems are solved instead of ignored. In contrast, a lack of accountability can create a toxic work environment, where finger-pointing becomes the norm and the organization suffers from poor morale, decreased productivity, and loss of trust among team members.

When professionals fail to hold themselves accountable, they not only risk their credibility but also the success of the project or organization they are working with. A lack of accountability leads to missed opportunities for growth and improvement. Employees who regularly shift blame instead of owning up to mistakes can become stagnant in their roles, avoiding challenges and evading learning experiences. On the other hand, professionals who take accountability for their actions embrace challenges, reflect on their performance, and actively seek opportunities to improve.

Furthermore, accountability is directly linked to performance improvement. Professionals who reflect on their actions and acknowledge gaps tend to grow faster in their roles. They seek feedback, take initiative, and are more committed to excellence. For instance, when a team member recognizes that they didn't deliver their best work on a task, acknowledging this mistake and asking for guidance or offering to rectify the issue shows not just

accountability but a drive for continuous self-improvement. It is this proactive attitude that sets high-performing individuals apart from those who merely “do the job” without investing in their own development.

Leaders who demonstrate accountability inspire trust. Employees are more likely to be motivated and loyal when they see their superiors practicing what they preach—admitting mistakes, sharing credit, and making fair decisions. Effective leaders do not shy away from taking responsibility for the team’s outcomes, whether they are positive or negative. This behavior sets an example for everyone else in the organization and encourages a culture of mutual respect and shared responsibility. Employees will feel empowered to take risks, try new things, and contribute their ideas if they know their leaders are equally accountable.

In addition, accountability encourages personal growth by pushing individuals out of their comfort zones. When employees are accountable for their work, they realize that their actions have real consequences, and as a result, they develop a stronger sense of purpose and direction. This mindset helps individuals become more reliable, proactive, and driven in their careers.

Conclusion

Accountability is more than a professional expectation—it is a personal commitment to doing the right thing, even when it is difficult. It strengthens character, enhances team dynamics, and builds a work culture that values responsibility over excuses. In every career path, accountability is not just a virtue—it is a necessity.

Activity 4: Case Studies on Professional Ethics

Date of Completion: 21/03/2025

Name of Student: Huzaifa Kamaal Khan

Purpose of the Activity:

The objective of this activity was to help students explore how to handle professional situations ethically, particularly in challenging circumstances involving conflicts of interest

and organizational pressure. This activity enabled us to analyze case studies in detail, focusing on ethical reasoning and the impact of decisions on both the individual and the organization.

Case Study 1: Ethical Decision-Making in the Face of Client Pressure

Scenario

A project manager at a consulting firm is tasked with delivering a market research report to a high-profile client. The client insists that the final report should emphasize favorable data, even though some of the information is misleading. The manager knows that presenting inaccurate findings would misguide the client, but the client's business is important to the firm, and refusing to comply might result in the loss of future contracts.

Ethical Dilemma:

The project manager faces two conflicting options:

- Should they alter the report to meet the client's expectations and secure future business, despite the unethical nature of the changes?
- Or should they refuse to compromise on integrity and risk losing a major client, potentially damaging the company's reputation?

Detailed Process Overview:

1. Client Pressure

The manager receives clear instructions from the client to shape the report in a way that supports the client's agenda. Despite the pressure, the manager feels uncomfortable with the idea of altering the data.

2. Weighing the Consequences

The manager starts to consider the long-term impact on both the client's business and the company's reputation. They realize that compromising on the truth could lead to future harm for both parties.

3. Consulting with Senior Leadership

The manager seeks advice from a senior executive who emphasizes the importance of professional integrity and the long-term risks of unethical decisions.

4. Decision to Uphold Integrity

After careful deliberation, the manager decides to present the findings honestly, even if it means confronting the client's expectations. They ensure that the report is accurate and transparent, with all data clearly supported by evidence.

Ethical Principles Involved:

- **Integrity:** Ensuring the accuracy and honesty of professional work, even when it conflicts with business interests.
- **Accountability:** Taking responsibility for the consequences of one's actions, especially when it involves the trust of clients and stakeholders.
- **Transparency:** Communicating findings clearly and openly, regardless of the potential fallout.
- **Courage:** Standing firm on ethical principles, even in the face of pressure.

Reflection and Outcome

By upholding integrity, the manager ensured that the client received accurate and unbiased information. Although the client was initially displeased, the firm maintained its reputation for honesty and quality. This decision ultimately reinforced the company's trust with existing and future clients.

Lessons Learned:

- Ethical decisions are not always easy, especially when facing external pressures.
- Upholding integrity is crucial, even at the expense of short-term success.
- Open and honest communication is key in managing client relationships.

Overall Insights:

1. Ethical decision-making in business often requires taking a stand for honesty, even at a personal or organizational cost.
2. Long-term professional success is built on a foundation of integrity and trust.
3. Ethical leadership is critical in setting a strong example for others in the organization.

Conclusion:

Maintaining professional ethics in the face of pressure can be challenging, but it ensures long-term success and preserves one's reputation. By prioritizing honesty and transparency, professionals protect not only their own integrity but also the trust placed in them by their clients and the organization.

Case Study 2: Ethical Considerations in Data Privacy**Scenario**

A software development company is creating a new app that collects personal data from users, including their location, browsing habits, and preferences. The app promises to provide personalized services based on this data. However, the company is considering selling some of this data to third-party advertisers. While the company believes this could

significantly increase revenue, there are concerns about how the users' personal information will be used and whether it aligns with privacy expectations.

Ethical Dilemma:

The company faces two options:

- Should they sell the data to maximize revenue, knowing that users might feel uncomfortable with the idea of their information being shared without full transparency?
- Or should they prioritize user privacy, potentially limiting their revenue but maintaining the trust of their customers?

Detailed Process Overview:

1. Development of the App

The company develops the app and includes features that collect personal data to enhance user experience. The app is marketed as providing personalized services based on user behavior.

2. Consideration of Data Monetization

As the app gains popularity, the company sees an opportunity to sell user data to third-party advertisers for additional profit. However, they are aware that this could breach user trust if not handled ethically.

3. Consulting Legal and Ethical Guidelines

The company's legal team and ethics advisors are consulted to determine whether selling user data without explicit consent violates privacy laws or ethical principles.

4. Decision to Prioritize User Privacy

After evaluating the potential risks, the company decides to adopt a transparent data policy that gives users clear options to control what information is shared. They prioritize user consent over profit-making, ensuring privacy safeguards are in place.

Ethical Principles Involved:

- **User Privacy:** Ensuring that personal data is handled with respect and in compliance with privacy laws.
- **Transparency:** Providing users with clear information about how their data will be used.

- **Accountability:** Taking responsibility for how user data is handled and maintaining trust.
- **Fairness:** Ensuring users' rights are protected without exploiting their data for profit.

Reflection and Outcome

By prioritizing transparency and user consent, the company avoided potential backlash from users who would have felt violated if their data were sold without permission. This decision also positioned the company as a leader in ethical data practices, which boosted user trust and long-term success.

Lessons Learned:

- Protecting user privacy is crucial for building and maintaining trust.
- Ethical decisions around data usage have long-term impacts on a company's reputation.
- Transparency and honesty with users can prevent unethical exploitation of personal information.

Overall Insights:

1. Ethical decisions regarding user data require balancing profitability with respect for privacy and trust.
2. Companies should adopt clear, transparent data policies that prioritize user rights.
3. Ethical data handling not only benefits users but also enhances a company's reputation and sustainability.

Conclusion:

In the age of technology, ethical considerations around data privacy are paramount. By prioritizing transparency and user consent, companies can protect their users while also

Activity 5: Ethical Dilemmas in Technology

Date of Completion: 04/04/2025

Name of Student: Huzaifa Kamaal Khan

Purpose of the Activity:

The aim of this activity was to examine the ethical challenges that arise in the technology sector, especially in relation to its design, development, and application. It sought to

highlight the moral responsibilities engineers and developers have in creating technology that benefits society while mitigating risks. This activity involved two primary components:

1. **Ethics in Technology Design** – A discussion on how technology developers should approach the design process to ensure ethical outcomes.
2. **Case Study Analysis** – A case study of the Space Shuttle Challenger disaster, focusing on how a failure in ethical decision-making contributed to a catastrophic technological failure.

Part 1: Ethics in Technology Design – Discussion Report

Process Overview:

What Is Ethics in Technology Design?

Ethics in technology design involves the deliberate consideration of moral principles during the creation and development of technological systems. It includes evaluating the social, environmental, and human impacts of technology and ensuring that it serves the public good. Key aspects include:

- Ensuring technology benefits society while minimizing harm
- Designing inclusive products that are accessible to all users
- Safeguarding user data and privacy
- Preventing abuse of technology, such as surveillance or harmful AI applications
- Incorporating feedback loops and user rights into design processes

Discussion Highlights:

During the class discussion, several critical points emerged:

1. User Safety and Well-being

Designers have a responsibility to ensure that technology does not harm users either physically or psychologically. This means creating systems with user safety in mind, such as cybersecurity measures to protect personal data and avoid exploitation.

2. Responsibility in AI and Automation

AI has the potential to transform industries, but if not developed with ethics in mind, it can reinforce harmful stereotypes or even cause bias. For example, facial

recognition technology has been shown to misidentify people of certain demographics more than others, raising concerns about fairness in AI.

3. Ethics in Algorithm Transparency

As AI and algorithmic decision-making become more prevalent, transparency about how algorithms function and make decisions is crucial. People should have the right to understand how their data is used and why certain decisions are made about them.

Key Takeaway:

The design and development of technology cannot be morally neutral. Every decision made during the design process influences the impact of technology on society. Developers must recognize the weight of their work and understand that their creations will affect individuals and communities in ways they may not initially foresee. It is their duty to mitigate potential harms and maximize the benefits of their technologies.

Conclusion:

Ethics in technology design is not just about avoiding harm but about proactively creating technologies that uplift society, protect users, and foster fairness. Developers must consider not only the immediate benefits of their products but also the long-term consequences, ensuring that the technology serves humanity responsibly and sustainably. Ethical design is essential for building trust in technology and ensuring its positive role in the future.

Part 2: Case Study – Space Shuttle Challenger Disaster

Scenario:

On January 28, 1986, the Space Shuttle Challenger tragically exploded 73 seconds after liftoff, killing all seven crew members on board. The cause of the explosion was the failure of the solid rocket booster O-rings, which were compromised by the cold temperatures on the

morning of the launch. Despite engineers raising concerns about the O-rings' vulnerability in cold weather, NASA made the decision to proceed with the launch under the pressure of meeting deadlines and maintaining public expectations.



Ethical Dilemma:

NASA faced a difficult ethical decision on whether to:

- Proceed with the launch despite warnings about the O-rings and the risk posed by the low temperatures.
- Delay the launch to safeguard the astronauts' lives, even though this would mean missing the scheduled launch window and delaying the program.

Procedural Details:

1. Pre-Launch Warnings:

Engineers from Morton Thiokol, the contractor responsible for the solid rocket boosters, warned NASA management that the O-rings could fail at low temperatures, but these warnings were downplayed. NASA's management was under significant pressure to meet the scheduled launch date, and the decision was made to go ahead with the mission.

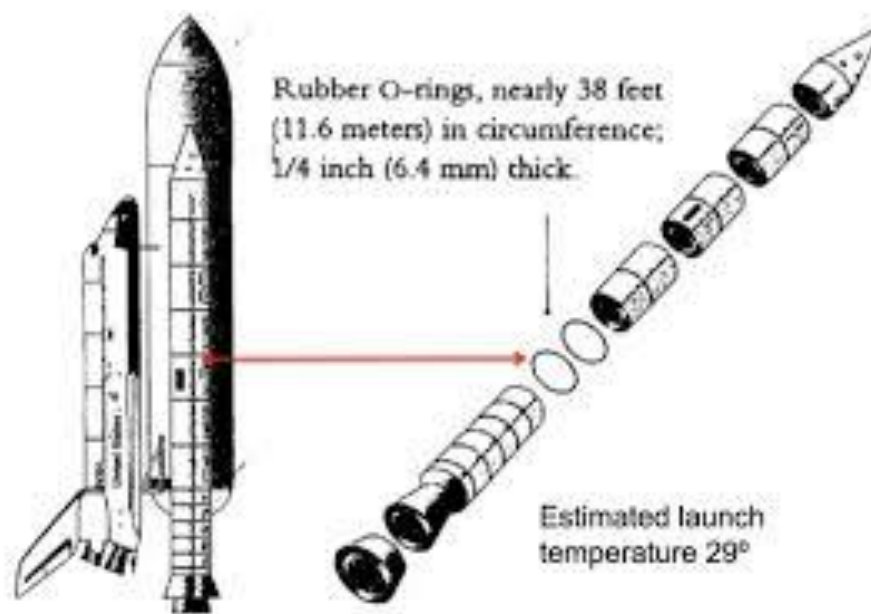
2. The Launch and Explosion:

The shuttle launched despite the engineers' concerns. Just over a minute into the

flight, the cold temperatures caused the O-rings to fail, which allowed hot gas from the rocket boosters to leak. This led to the destruction of the shuttle and the tragic loss of the crew members.

3. Post-Disaster Investigation:

The Rogers Commission, tasked with investigating the disaster, found that NASA's organizational culture prioritized schedules and political pressures over safety. It was concluded that poor communication, disregard for safety warnings, and a failure in leadership contributed to the decision to proceed with the launch.



Ethical Principles Involved:

- **Safety:** The astronauts' safety should have been the primary concern, but the decision to launch compromised their well-being.
- **Accountability:** NASA's management failed to acknowledge the risks and take responsibility for the consequences of ignoring safety concerns.
- **Integrity:** Ignoring expert warnings and pushing forward with the launch in the face of potential risks represented a breach of professional integrity.
- **Transparency:** A more transparent discussion about the potential dangers could have led to a different outcome. If all risks had been openly communicated, the decision to delay might have been made.

Reflection and Outcome:

The Challenger disaster serves as a harsh reminder of the ethical costs of prioritizing deadlines and external pressures over human lives. The tragedy highlighted the importance of listening to expert advice and making ethical decisions, regardless of the pressures that may exist. In response to the disaster, NASA reformed its safety culture and introduced more rigorous risk assessment protocols to prevent such an incident from happening again.

Lessons Learned:

- **Safety Should Always Be the Priority:** No deadline, however important, should ever outweigh the safety of individuals.
- **Trust and Act on Expert Advice:** Experts must be heard, and their concerns should be seriously considered, especially when they involve risks to human life.
- **Ethical Transparency Is Crucial:** Honest, open communication is essential, particularly when lives are at stake.

Overall Insights:

1. **The Need for Ethical Courage:** Making the right decision in high-pressure situations requires moral courage, even when it might go against the prevailing culture or expectations.
2. **The Impact of Organizational Culture:** The decision-making environment in an organization can significantly influence the ethical standards that are followed. A culture that emphasizes speed and performance can undermine safety and ethics.
3. **The Role of Leadership in Ethics:** Ethical leadership is essential for ensuring that difficult decisions are made with integrity and responsibility. Leaders must be willing to take ownership of their decisions and their consequences.

Personal Reflection:

The Challenger disaster is a powerful lesson in the consequences of neglecting ethical considerations in technology and engineering. It shows that ethical decision-making must not be swayed by external pressures, especially in fields where the stakes are as high as

human life. In industries like space exploration, where the risks are immense, safety and ethics must always come first.



Conclusion:

The Challenger disaster emphasizes that ethical decision-making is not optional—it is vital. No matter how important a mission or how tight the timeline, safety, transparency, and accountability must always take precedence. We can learn from this tragedy that the cost of overlooking ethics in decision-making can be devastating, but through commitment to integrity and responsibility, we can prevent future disasters.

Activity 6: Creating a Professional Code of Conduct

Date of Completion: 11/04/2025

Name of Student: Huzaifa Kamaal Khan

Purpose of the Activity:

The aim of this activity was to help students reflect on the importance of maintaining ethical standards and responsibility in their professional careers. It encourages future engineers to formulate a personalized code of conduct that emphasizes ethical behavior, promoting a positive work environment, and ensuring public trust. As a computer engineering student, I have identified five core ethical principles that should guide a professional engineer in their career to maintain integrity, professionalism, and respect for others.

Top 5 Codes of Conduct for a Computer Engineer:**1. Ensure Accuracy and Honesty in Professional Work****Description:**

Computer engineers must ensure that their work is always accurate and truthful. Misleading or falsifying information, whether it's during design, coding, or testing, compromises the integrity of the work and can lead to long-term negative consequences.

Why It Matters:

- Inaccurate work can result in faulty systems, financial losses, and even harm to end users.
- Honesty in work fosters trust with colleagues, clients, and employers, helping to build strong professional relationships.

Example:

If errors are detected in the final stages of a project, it is essential to report them immediately, even if it causes delays, as transparency ensures the overall quality and safety of the project.

2. Uphold User Privacy and Data Protection Standards**Description:**

A computer engineer must respect the privacy and confidentiality of user data. It's critical to adhere to data protection regulations such as GDPR and ensure that sensitive information is handled with care and caution.

Why It Matters:

- Violations of privacy can result in legal consequences, loss of reputation, and harm to individuals.

- Protecting user data helps maintain the trust between users and service providers, which is fundamental to the tech industry's integrity.

Example:

A database administrator should never access or share user data without proper consent, even if they have the technical capability to do so.

3. Prioritize Security and Excellence in Software Development

Description:

Every piece of software or system developed should prioritize security and quality over expedience. Compromising on security for faster development can lead to vulnerabilities that expose users and organizations to risks.

Why It Matters:

- Security flaws can result in data breaches, financial theft, and damage to an organization's reputation.
- Developing high-quality software ensures reliability and minimizes the risk of system failures that could negatively impact users.

Example:

When working on an e-commerce platform, engineers must ensure secure encryption for transactions and implement robust authentication mechanisms, even if it extends the development timeline.

4. Maintain Objectivity and Fairness in All Professional Decisions

Description:

Computer engineers should avoid situations where personal interests, favoritism, or external pressure can influence professional judgment. Maintaining fairness in decision-making is crucial for fostering trust and accountability within the team and the broader organization.

Why It Matters:

- Conflicts of interest can lead to biased decisions, damaging personal and organizational reputation.
- Unbiased decisions promote fairness, equality, and a transparent work environment, which is essential for building effective teams.

Example:

While choosing between competing software vendors, an engineer should base the decision solely on the quality of the product and its compatibility with the organization's needs, rather than personal relationships.

5. Engage in Lifelong Learning and Ethical Growth

Description:

Technology and its ethical implications are constantly evolving, and engineers must commit to continuous learning. This includes staying updated on technological advancements, understanding their ethical challenges, and incorporating these into one's work.

Why It Matters:

- Outdated knowledge can result in creating ineffective or unsafe systems.
- Staying informed about new ethical issues, such as bias in artificial intelligence or privacy concerns, helps engineers avoid mistakes that can harm users or society.

Example:

An AI engineer should regularly study the ethical guidelines for AI systems to avoid contributing to algorithmic discrimination or reinforcing biases in machine learning models.

Conclusion:

By creating this professional code of conduct, I have realized that success in the field of computer engineering goes beyond technical expertise. Ethical responsibility, a commitment to continual learning, and a strong sense of duty to users and society must always be prioritized. These five principles will guide me throughout my career, helping me to make decisions that not only lead to professional success but also contribute positively to the world of technology. Ultimately, engineers have the power to shape the future, and we must ensure that we use this power responsibly.