

Software Testing and Quality Assurance

Unit 5: Legal, Ethical, and Professional Aspects of Testing



Unit-5 Topics

- ☐ Legal, Ethical, and Professional Aspects of Testing
- ☐ The Ethical Software Tester
- ☐ Professional Responsibility of Software Tester
- ☐ ACM Code of Professional Conduct and Ethics



Legal, Ethical, and Professional Aspects of Testing

- ❑ **Ethics** is a practical branch of philosophy that deals **with moral questions** such as **what is right** or **wrong**, and how a person **should behave** in **a given situation in a complex world**.
- ❑ **Ethics** explore **what actions are right** or **wrong** within a specific **context** or within a certain **society** and seek to find satisfactory answers to **moral questions**.
- ❑ **Cultural relativism** argues that the **particular society determines** what is right or wrong based upon its cultural values.
- ❑ **Deontological** ethics argues that there are **moral laws** to guide people in deciding what is right or wrong.
- ❑ **Utilitarianism** which argues that an action is right if its overall affect is to produce **more happiness** than unhappiness in society.
- ❑ **Professional ethics** are **a code of conduct** that governs how members of a profession deal **with each other** and **with third parties**.
- ❑ **A professional code** of ethics expresses **ideals of human behaviour**, and it defines the **fundamental principles** of the organization and is an indication of its professionalism.
- ❑ **Business ethics** define the **core values of the business** and are **used to guide employee behaviour**.
- ❑ **Business ethics** (also called **corporate ethics**) are concerned with ethical principles and moral problems that arise in a business environment



Legal, Ethical, and Professional Aspects of Testing

- ❑ **Business ethics** refers to the core **principles** and **values** of the organization and apply throughout the organization.
- ❑ **Business ethics** guide individual employees in carrying out their roles and ethical issues include **the rights** and **duties** between **a company** and its **employees, customers, and suppliers**.
- ❑ **Human resource** function in a company plays an important role in promoting ethics and in putting internal HR policies in place relating to the ethical conduct of the employees.
- ❑ **Companies** are expected to behave ethically and not exploit its workers.

What is Computer Ethics?

- ❑ **Computer ethics** are a set of principles that guide the **behaviour of individuals** when using computer resources.
- ❑ Several ethical issues that may arise include **intellectual property rights, privacy concerns, and the impacts of computer technology on wider society**.



Legal, Ethical, and Professional Aspects of Testing

❑ The Computer Ethics Institute (CEI) **Ten commandments** on computer ethics

1. **Not** use a computer **to harm other people**
2. **Not** interfere with **other people's computer work**.
3. **Not snoop** around in other people's computer files
4. **Not** use a computer **to steal**
5. **Not** use a computer to **bear false witness**
6. **Not** copy or use proprietary software for which you **have not paid**
7. **Not** use other people's computer resources **without authorization** or **proper compensation**.
8. **Not** appropriate other people's intellectual output
9. Think about the **social consequences** of the program you are writing or the system you are designing
10. Always use a computer in ways that ensure **consideration** and **respect for your fellow humans**



The Ethical Software Tester

- ☐ Certified software testers **shall act consistently** in the **public interest**
- ☐ They shall act in the **best interests** of their **client** and **employer**
- ☐ Certified software testers shall ensure that their **deliverables** meet the **highest professional standards**
- ☐ They shall maintain **independence and integrity** in professional judgments
- ☐ Certified software **test managers** and **leaders** shall **promote an ethical approach** to the **management of software testing**
- ☐ They shall advance the **integrity and reputation** of the profession
- ☐ Certified software testers shall be **supportive of their colleagues** and **promote cooperation with software developers**
- ☐ They shall participate in **lifelong learning** regarding the practice of their profession and **promote an ethical approach** to the practice of their profession.



Professional Responsibility of Software Tester

Professional responsibilities of software engineers and testers

1. **Honesty** and **fairness** in dealings with Clients
2. **Responsibility** for actions
3. **Continuous learning** to ensure **appropriate knowledge** to serve the client effectively



ACM Code of Professional Conduct and Ethics

S.NO	Area	Description
1	Contribute to society and human well-being	Computer professionals must strive to develop computer systems that will be used in socially responsible ways and have minimal negative consequences
2	Avoid harm to others	Computer professionals must follow best practice to ensure that they develop high-quality systems that are safe for the public. The professional has a responsibility to report any signs of danger in the workplace that could result in serious damage or injury
3	Be honest and trustworthy	The computer professional will give an honest account of their qualifications and any conflicts of interest. The professional will make accurate statement on the system and the system design and will exercise care in representing ACM
4	Be fair and act not to discriminate	Computer professionals are required to ensure that there is no discrimination in the use of computer resources, and that equality, tolerance and respect for others are respected



ACM Code of Professional Conduct and Ethics

S.NO	Area	Description
5	Respect property rights	The professional must not violate copyright or patent law, and only authorized copies of software should be made
6	Respect intellectual property	Computer professionals are required to protect the integrity of intellectual property, and must not take credit for another person's ideas or work
7	Respect the privacy of others	The professional must ensure that any personal information gathered for a specific purpose is not used for another purpose without the consent of the individuals. User data observed during normal system operation must be treated with the strictest confidentiality
8	Respect confidentiality	The professional will respect all confidentiality obligations to employers, clients, and users



QUESTIONS PLEASE 😊

