

Chp 7 - Software Development

Definition of Quality

Quality refers to attributes to estimate the intrinsic characteristics of a product.

Qualities are:

- Measurable Characteristics
- Intrinsic Properties

Source: **ISO 9000:2015**

Types of Quality

Quality is of two types.

1. Quality of design: The degree to which the requirements for design are fulfilled.
2. Quality of conformance: The degree to which a product or service conforms to its requirements.

Source: **ISO 9000:2015**

Quality Assurance

Quality assurance is the auditing, reporting of functional management.

- The goal of Quality Assurance is to assure the company about software quality.

Quality Control

It consists of a series of activities throughout the software development process to ensure that the software meets the requirements of the customer.

Cost Of Quality

Cost of quality is the summarized cost of the whole process. It includes all costs - from requirements gathering to final product, throughout the whole software development process. It includes:

- Bundle by bundle cost incurred
- Predict cost by considering future bugs

Types of Cost of Quality

Quality costs may be divided into costs associated with prevention, appraisal and failure.

Prevention: This cost includes:

1. Formal Technical Review
2. Training
3. Test Equipments
4. Quality Planning

Appraisal Cost: This cost includes:

1. Gain insight into product condition
2. The "first time through" each process
3. In-process and inter-process inspection
4. Equipment calibration and maintenance
5. Testing

Failure Cost: Failure costs are costs that would disappear if no defects appear before shipping a product to customers. Failure costs may be divided into internal and external failure.

Internal & External Failure Cost

Internal Failure Costs are incurred when we detect a defect in our product prior to shipment.

Internal failure costs include:

- Reward
- Repair
- Failure Mode Analysis

External failure costs are associated with defects found after the product has been shipped to the customer. External failure costs are:

- Complaint Solution
- Product return and replacement
- Helpline support
- Warranty Work

Chp 10 - Ethics Of IT Organizations

What are the Key Ethical Issues for Organizations?

This chapter touches on the following ethical topics that are pertinent to organizations in the IT industry, as well as to organizations that make use of IT:

1. The use of **nontraditional** workers, including temporary workers, contractors, consulting firms, H-1B visa workers, and outsourced offshore workers, gives an organization more flexibility in meeting its staffing needs, often at a lower cost Ethics of IT Organizations than if the organization used traditional workers. The use of nontraditional workers also raises ethical issues for organizations. When should such nontraditional workers be employed, and how does such employment affect an organization's ability to grow and develop its own employees? How does the use of nontraditional workers impact the wages of the organization's own employees?
2. **Whistle-blowing**, as discussed in Chapter 2, is an effort to attract public attention to a negligent, illegal, unethical, abusive, or dangerous act by a company or some other organization. It is an important ethical issue for individuals and organizations. How can you safely and effectively report mis- conduct, and how should managers handle a whistle-blowing incident?
3. **Green computing** is a term applied to a variety of efforts directed toward the efficient design, manufacture, operation, and disposal of IT-related products, including personal computers, laptops, servers, printers, and printer supplies. Computer manufacturers and end users are faced with many questions about when and how to transition to green computing, and at what cost.
4. The electronics and information and communications technology (ICT) industry recognizes the need for a **code to address ethical issues** in the areas of worker safety and fairness, environmental responsibility, and business efficiency. What has been done so far, and what still needs to be done

Definitions

Contingent Work: The Bureau of Labor Statistics defines contingent work as a job situation in which an individual does not have an explicit or implicit contract for long-term employment. The contingent workforce includes independent contractors, temporary workers hired through employment agencies, on-call or day laborers, and on-site workers whose services are provided through contract firms.

Ethics 7,10 notes

<https://docs.google.com/document/d/1jEG8FM-6DJZRXLSV9zv3f2uYonmkY2MU5gFmEzkpvr/edit>