



# AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH

**Course: Software Quality and Testing**

**Section: C**

**Faculty: Abhijit Bhowmik**

**Date:12-03-2021**

## **Group member's details:**

Serial	Name	ID
1.	Farajannat, Fahim	17-35634-3
2.	Hossan, Md.Sazzat	18-37445-1
3.	Shimu, Md. Abusufian	15-29876-2
4.	Hridoy, Abdur Rahman	17-33706-1

## **Title: Assignment on Test Strategy**

**1.**

Software quality refers to how well a piece of software functions and is designed. Really, the most important thing is that good software does exactly what the users want it to do.

## 2.

Software quality assurance is a method of ensuring software quality. The correctness component of quality and coping with defects are the subject of software quality assurance.

These events are categorized as follows:

### **Defect prevention:**

QA practices prevent these forms of faults from being inserted into software, since errors are the result of missing/incorrect human actions, which result in fault injection into software systems.

This can be accomplished in two ways:

- Error source elimination
- Error prevention

### **Defect Reduction:**

After such faults have been injected into software systems, QA activities detect and delete them.

Defect reduction can be accomplished in a variety of ways.

- Defect-reduction inspection process
- Informal evaluations
- Formal evaluations
- Defect-reduction testing process
- Other defect-reduction techniques and risk-identification methods

### **Defect containment:**

To ensure software reliability and protection, control defects through fault tolerance, failure avoidance, or failure impact minimization.

a flaw Containment can be accomplished in one of two ways:

- Fault tolerance in software
- Guarantee of safety and containment of failures

### 3.

It is impossible to guarantee the highest quality for all quality attributes. Because of this,

- Practices in Defect Reduction will only reduce the number of faults to a manageable amount, not absolutely eradicate them (because of the large size and high complexity of most software systems in use today as complete testing is not possible).
- It is impractical to consider defect prevention practices to be 100 percent successful in avoiding unintended fault injections in Defect Prevention.
- Fault avoidance or blocking by directly fixing or blocking certain incomplete or incorrect human acts in error blocking (e.g. user cannot give 0 value to the divisor attribute; data validation in excel).

### 4.

Software testing is an essential component of the software development process. Early testing saves money and time by reducing the need for rework and delivering error-free applications to the customer. Testing will begin during the requirements gathering phase of the software development life cycle and continue until the software is deployed. Although each organization has its own testing team structure, there are a few members who are present in all of them and who meet the team's requirements. This includes the following:

- QA Leader-The most significant member of the research team is the QA Leader. He has a firm grasp on the research procedure.
- Test Lead- A test lead is a person who is familiar with the various test-program issues and has a good understanding of the applications business area and its specifications.
- Individuals who perform tests Entry-level testers, senior testers, output testers, automation testers, and testers conducting complex experiments can all be included in the testers category.