

## Fundamentals of testing

### Reason for testing:

1. Human just make mistakes
2. Errors occur in all different phases of the development of software
3. Pressured situation can cause mistakes and etc

### Consequences of software failures:

1. Defect products
2. Severe failure can lead to devastated results such as company close, or technical accidents and so on
3. Loss of money and human resource etc

### Failure examples: to be completed later

### Testing principles:

1. To find defects as much as possible
2. Can prove the existence of bugs, but not prove the absence of errors
3. Exhaustive testing is impossible
4. Early testing is important, as it less costly, and as a matter of fact many errors occur within specifications
5. Defect clustering
6. The pesticide paradox
7. Context dependent
8. Absence of errors fallacy

### Testing, how?

#### The test development process

An iteration of activities include: test planning and control -> Test analysis and design -> Test implementation and execution -> Evaluating exit criteria -> Test closure activities