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Ch1 Introduction to Test Case Design

★ Test case is a set of conditions to determine the functionality of the software works correctly or not.

★ A testing tool is a software product that enables software testers to define software testing tasks.

★ **Test Case Design Techniques**

- **Specification Based (Black-Box)**
  - Boundary value
  - Equivalence partioning
  - Decision table testing
  - State transition Diagram
  - Use case testing
- **Structure Based (White-Box)**
  - Statement coverage
  - Decision coverage
  - Branch coverage
  - Loop coverage
  - Path coverage
- **Experience-Based**
  - Error guessing
  - Exploratory testing

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★ Error is defined as deviation of output from software from the outputs expected by the user.

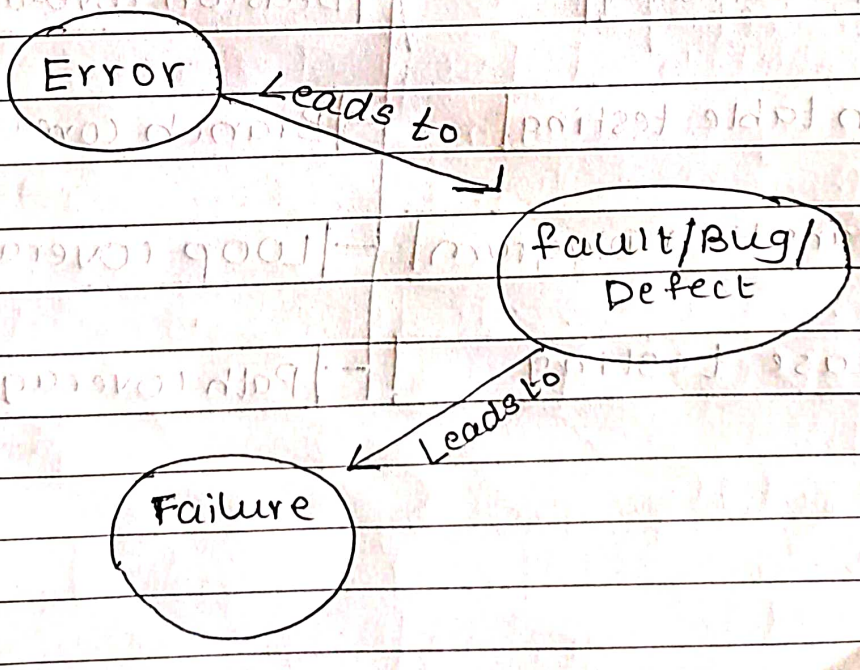
① Syntax error → eg missing brackets, semicolon

② logic error → eg infinite loop

★ Bug is defined as a logical mistake which is caused by a software developer while writing the software code.

① Functional bug → eg Login button doesn't allow user to login

② logical bug → eg. assigning value to wrong variable.



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★ Bug can arise :-
(I) Wrong coding
(II) missing coding
(III) Extra coding.

★ Bug tracking Tools

(I) → Jira
(II) → Bugzilla
(III) → Redmine
(IV) → Mantis
(V) → Backlog
(VI) → BugNet
(VII) → Trac

★ The entry criteria for a test are the requirements that need to be fulfilled before the test can run.
Eg:- If main page has texbox to fill out, then part of entry criteria is filling out that textbox before clicking Submit button.

★ The exit criteria for a test are a set of conditions based on which we can determine that the test execution is finished.
Eg:- After clicking submit button, if the web page navigates to the results page, then this is exit criteria.

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★ Feature / characteristics.

(i) Test should neither be too simple nor too complex.

(ii) High probability of finding an error.

(iii) Should be 'best of breed'.

(iv) NO Redundancy.