**Software testing (Chapter 2)**

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1. Statement Coverage

Statement is nothing but the line of code or instruction for the computer to understand and act accordingly. A statement becomes an executable statement when it gets compiled and converted into the object code and performs the action when the program is in running mode.

The Statement Coverage covers it the true condition

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2 .Branch Coverage

Branch coverage is atesting method, which aims to ensure that each one of the possible branchfrom each decision point is executed at least once and thereby ensuring that all reachable code is executed. That is, every branch taken each way, true and false.

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3.Path Coverage

Path coverage refers to designing test cases such that all linearly independent paths in the program are executed at least once. A linearly independent pathcan be defined in terms of what's called a control flow graph of an application.

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4. Black box testing

Black-box testing is a method of software testing that examines the functionality of an application without peering into its internal structures or workings. This method of test can be applied virtually to every level of software testing

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5.Equivalence partitioning

software testing technique that divides the input data of a software unit into partitions of equivalent data from which test cases can be derived. In principle, test cases are designed to cover each partition at least once.

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6.Boundary Value Analysis

Boundary value analysis is a software testingtechnique in which tests are designed to include representatives of boundary values in a range. The idea comes from the boundary.

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7. Gray box testing

Gray-box testing is a combination of white-box testing and black-box testing. The aim of this testing is to search for the defects if any due to improper structure or improper usage of applications.

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8 Unit testing

UNIT TESTING is a level of software testing where individual units/ components of a software are tested

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9. Driver and stub

Driver : Test Drivers are the modules that act as temporary replacement for a calling module and give the same output as that of the actual product.

Stub:  Stubs are the modules that act as temporary replacement for a called module and give the same output as that of the actual product.

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10 . All approach

Top down approach

Bottom up approach

Big bang approach

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11. Big bang approach

Big Bang Integration Testing is an approach in which all software components (modules) are combined at once and make a complicated system. This unity of different modules is then tested as an entity. According to this checking method, the integration process will not be executed until all components are completed.

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