

Software Testing Mentor

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ISTQB Foundation Level and Software Testing Training

Module 4

Test Design Techniques

Session 2 – Categories of Test design Techniques

Test design techniques categories

There are three categories of Test design techniques

- Specification-based (Black-box) testing technique
- Structure-based (White-box) testing technique
- Experience-based testing technique

Specification-based (Black-box) testing technique

Specification based testing technique is also known as black box testing technique

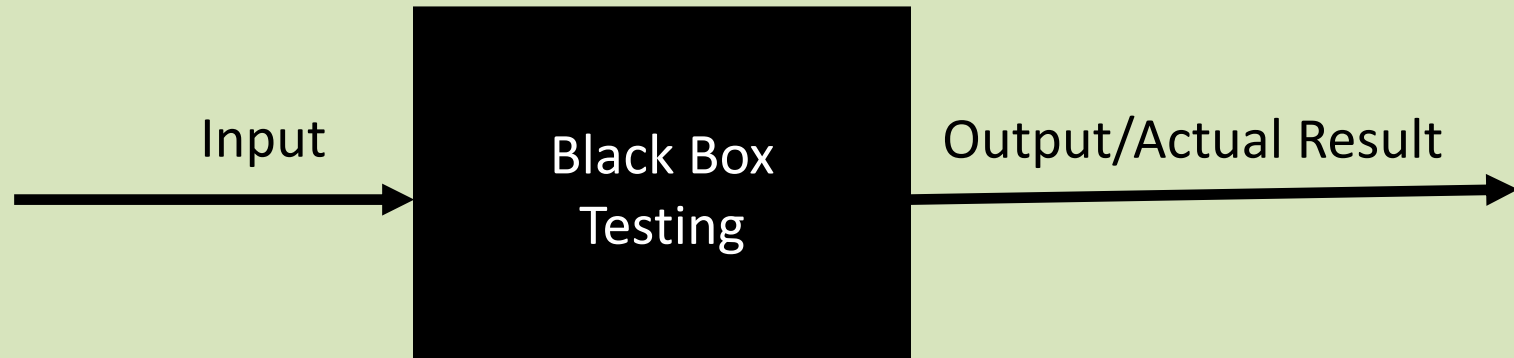
This is dynamic testing technique

This is input-output driven testing technique as you are not concerned about internal software structure.

In this technique tester is concerned about what the software does not how it does

You test both functional and non functional characteristics of software using this technique

Black Box Testing Technique



If Output = Expected result, then your test passes

Structure-based (White-box) Testing Technique

Structure based testing technique is also known as white box or glass box testing technique

It is also a dynamic testing technique

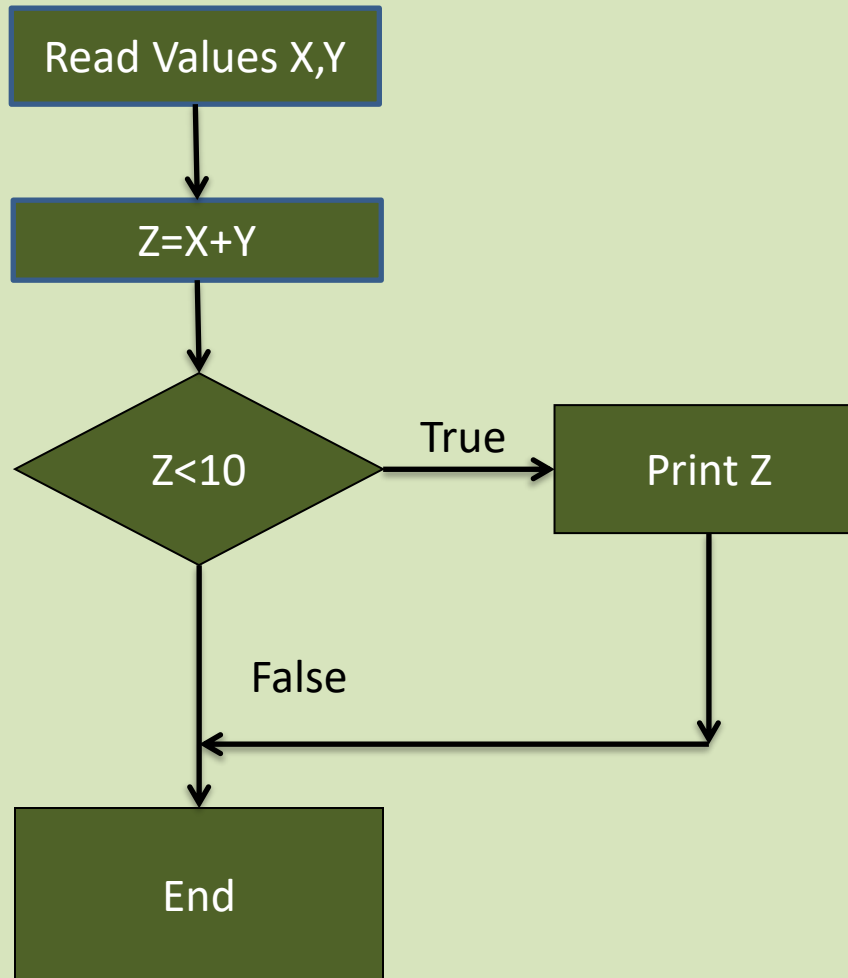
White Box testing uses internal software structure to design test cases.

It tests how the decisions and conditions are exercised, unit test cases are developed to exercise loops, decisions

It tests paths within a unit and also flow between units during integration of units.

Requires knowledge of internal code structure and good programming skills.

White-box Testing Technique



Experience-based testing technique

In experience based testing technique knowledge of testers, developers, users and other stakeholders is the used to design test conditions and test cases

Experiences of both technical people and business people is considered

Because of the prior experience people know where things can go wrong in the software.

Where to apply different categories of testing techniques?

Specification based or black box testing techniques are used at all levels of testing

- Component testing through acceptance testing
- Requirements docs ,design docs form the basis for tests

Structure based of white box testing can also be applied at all test levels

- Component testing through acceptance testing

Experience based testing technique is used to complement black-box and white box testing technique

- This is also used when there is inadequate documentation or no documentation for designing tests
- Useful for less risk applications or under extreme time pressure
- This also leads to exploratory testing

Conclusion

In this session we understood about three test design techniques

- Specification-based (Black-box) testing technique
- Structure-based (White-box) testing technique
- Experience-based testing technique

THANK YOU!!!