

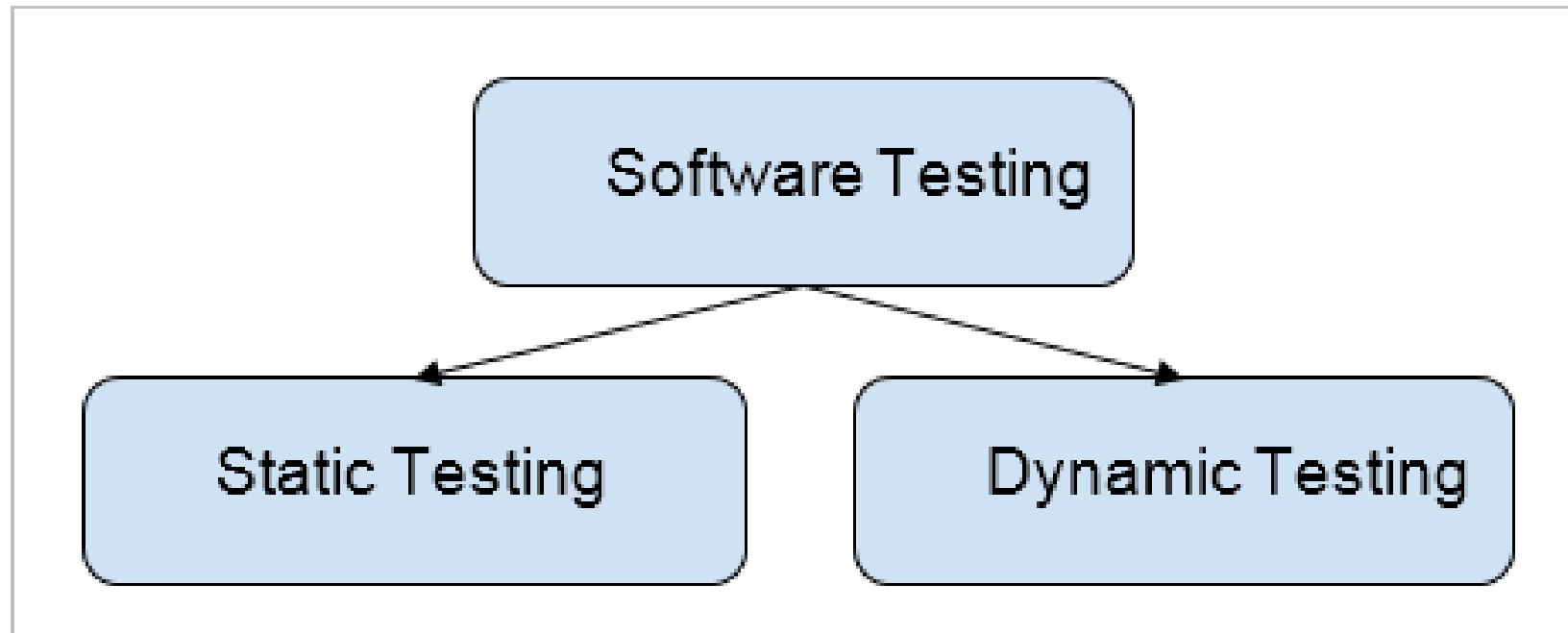
Static Testing

Informal Review ,Walkthrough , Inspection

What is Static Testing?

Static testing is a software testing methodology used to look for faults in software applications without running the program. Static testing is used to prevent problems at an early stage of development since it is easier to notice and correct faults at this point. It also aids in the detection of faults that Dynamic Testing may miss.

Dynamic Testing, on the other hand, examines an application while the code is executed.



Static Testing

Without executing the Code

Technique of Verification Testing

No Real Application

Static Techniques

Dynamic Testing

By executing the Code

Real Application
will be running and
available



Technique of Validation

Static Testing Techniques

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graph TD; A[Static Testing Techniques] --> B[Reviews]; A --> C[Static Analysis]; B --> D[Informal]; B --> E[Walkthrough]; B --> F[Peer Review]; B --> G[Inspection];
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Reviews

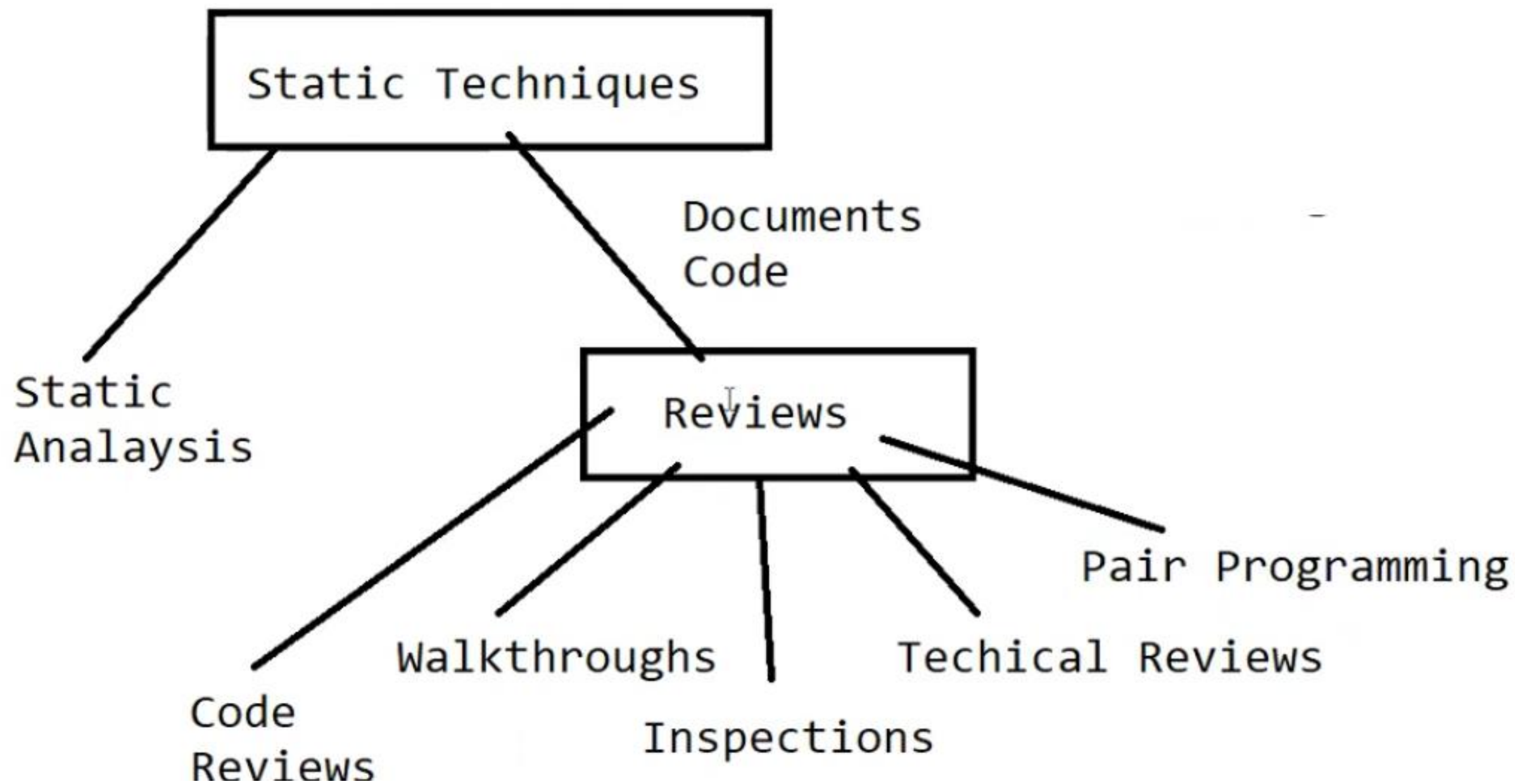
Static Analysis

Informal

Walkthrough

Peer Review

Inspection



Static
Analysis

Code Structure
Industry
Standards

Developers

Without running the
Code

Automated Tools

SonarQube

a) Informal Review: In this type of review, the author of the document presents it in front of the team. The team in this review consists of senior management, business clients, development team, etc. The main aim of informal reviews is to get casual feedback from the team members in the early stages of the product.

b) Walkthrough: Document walkthrough is generally performed by experts or senior members of the team. These walkthroughs are a check for the quality of the product and also to see if the team is working in the right direction.

c) Peer Review: It's an informal review with teammates to check the common mistakes like spelling mistakes, requirement workflow, etc to gather their understanding of the document and get reviews in order to enhance the quality of the documents.

d) Inspection: Inspection is the most formal review in the static testing technique. Inspection is given the power to accept or reject the document under review. This has a fully defined process with defined roles in the team involved in the inspection of a document.

Static Test Techniques

Static Analysis

Reviews

Code Reviews

Technical Reviews

Peer Programming

Inspections

Walkthroughs

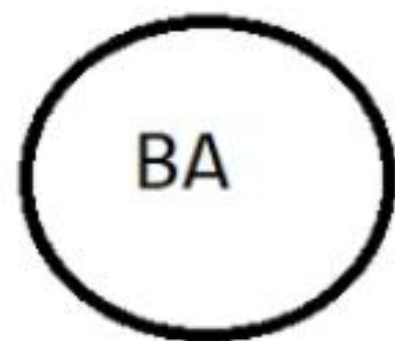
Informal Review Meetings

Conducted by the Author of the Document

To gather feedback from the Project Team

Review

Walkthroughs



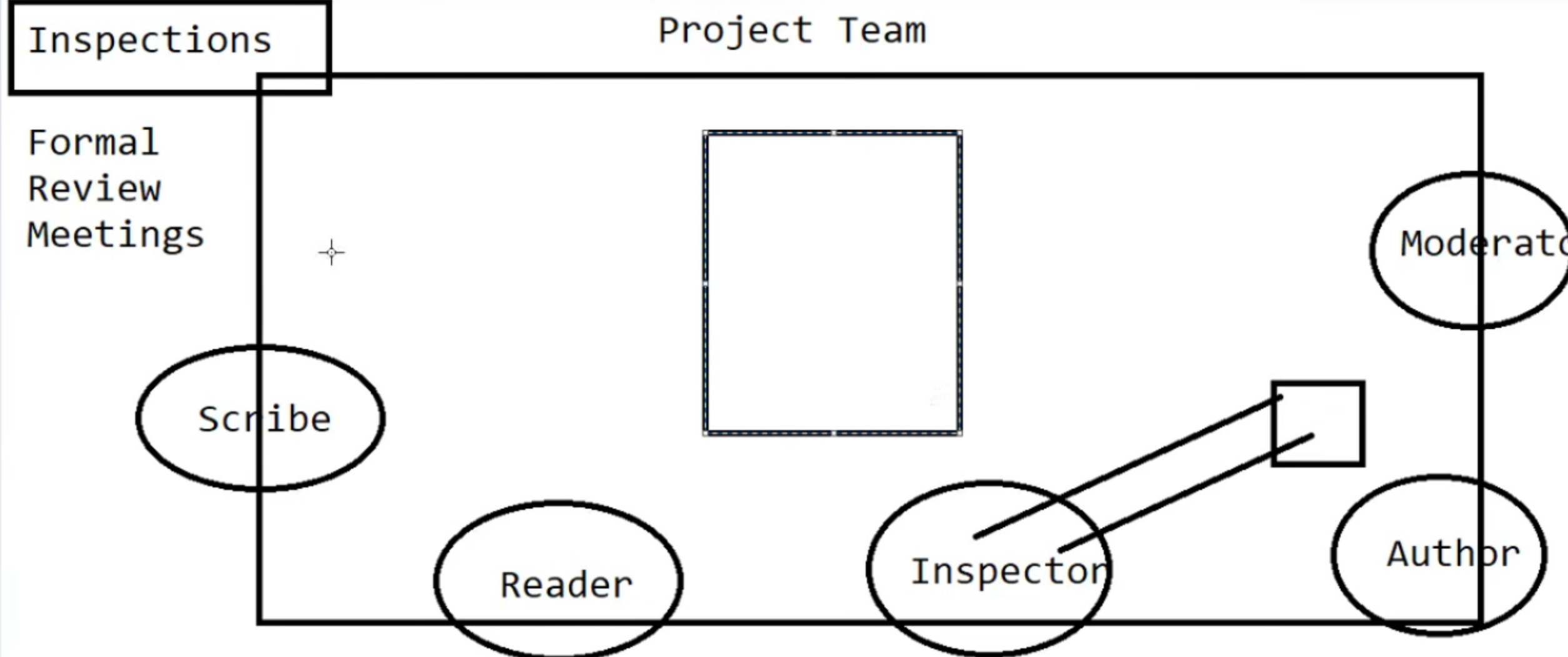
Author

BRS

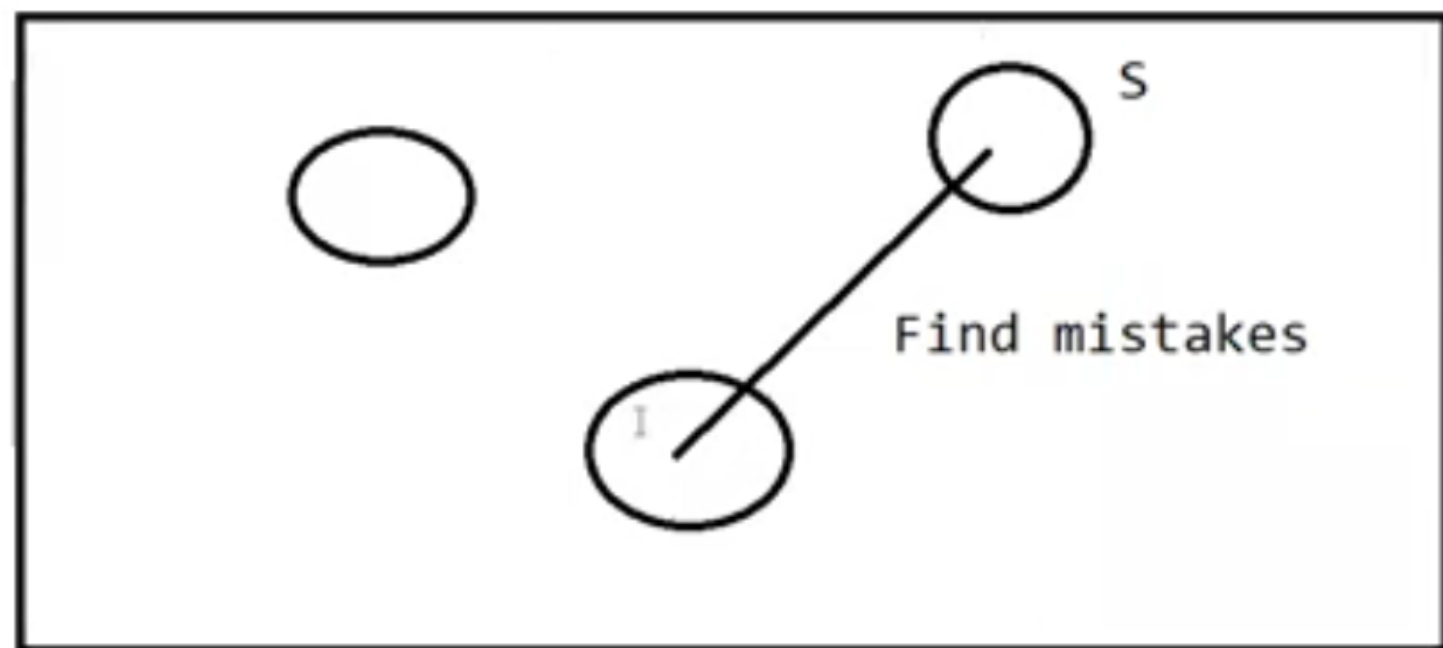
I

Informal Meeting

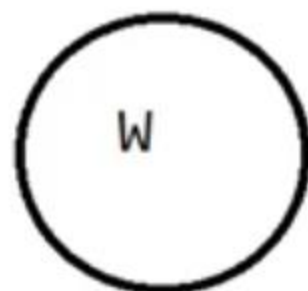
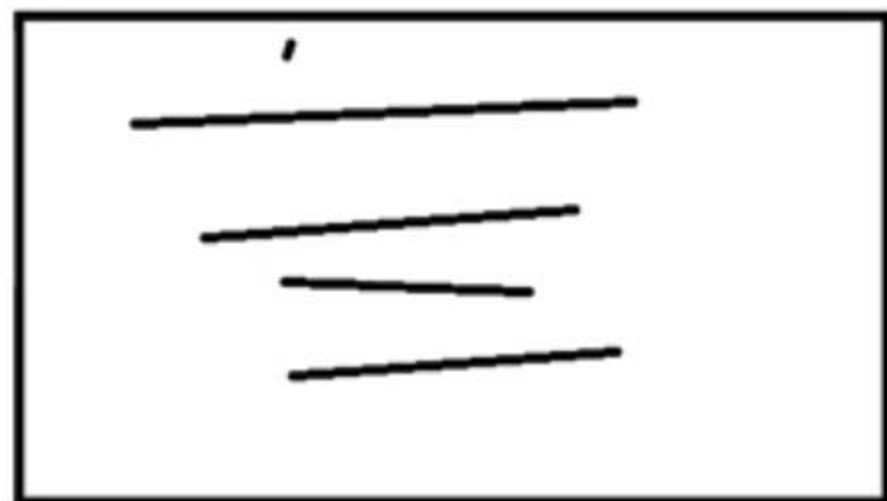




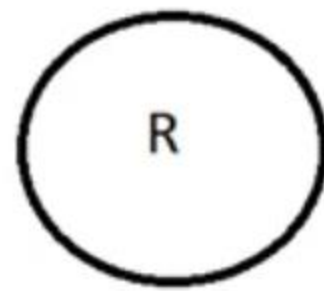
Code Reviews



Peer Review

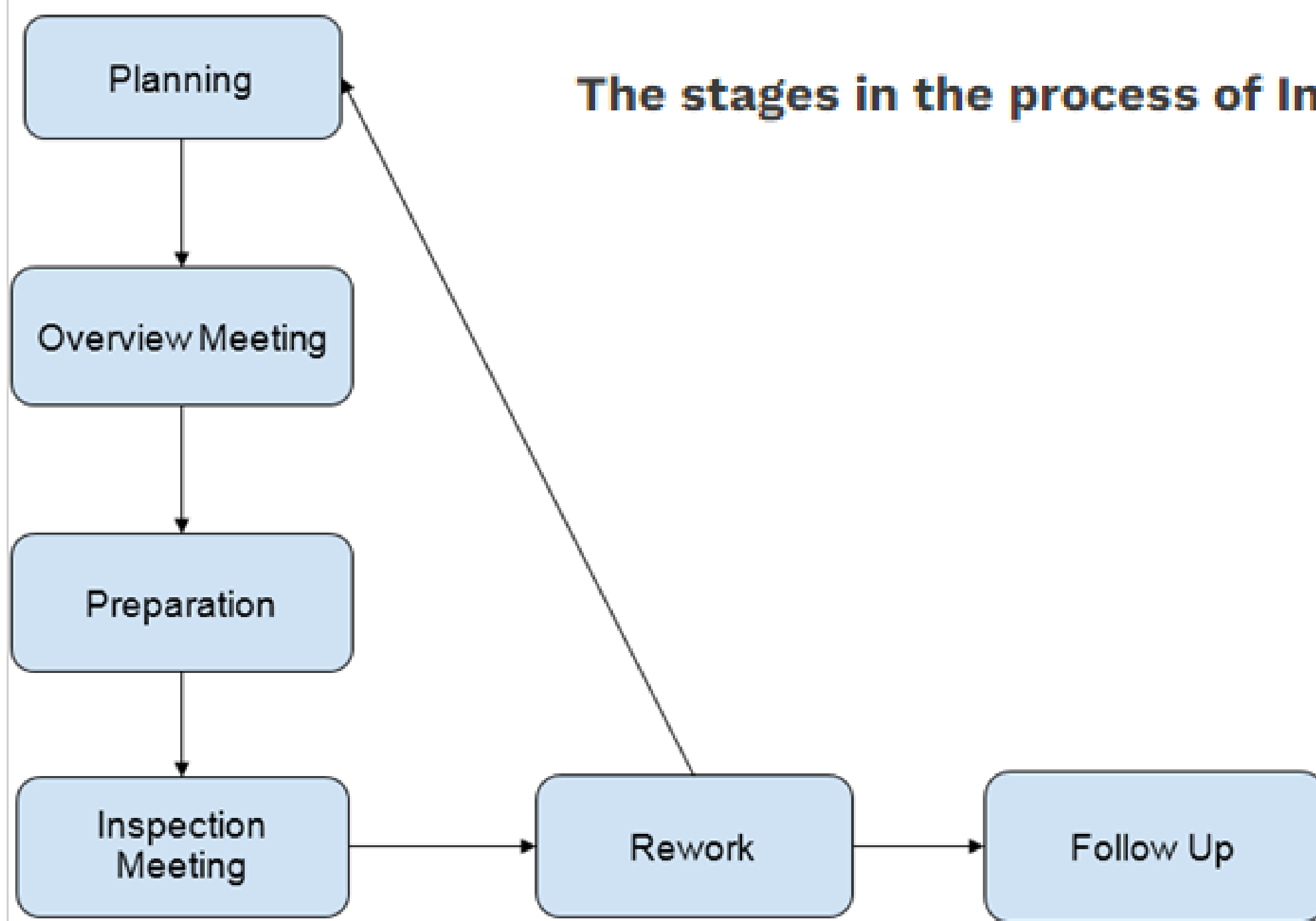


D



D

The stages in the process of Inspection



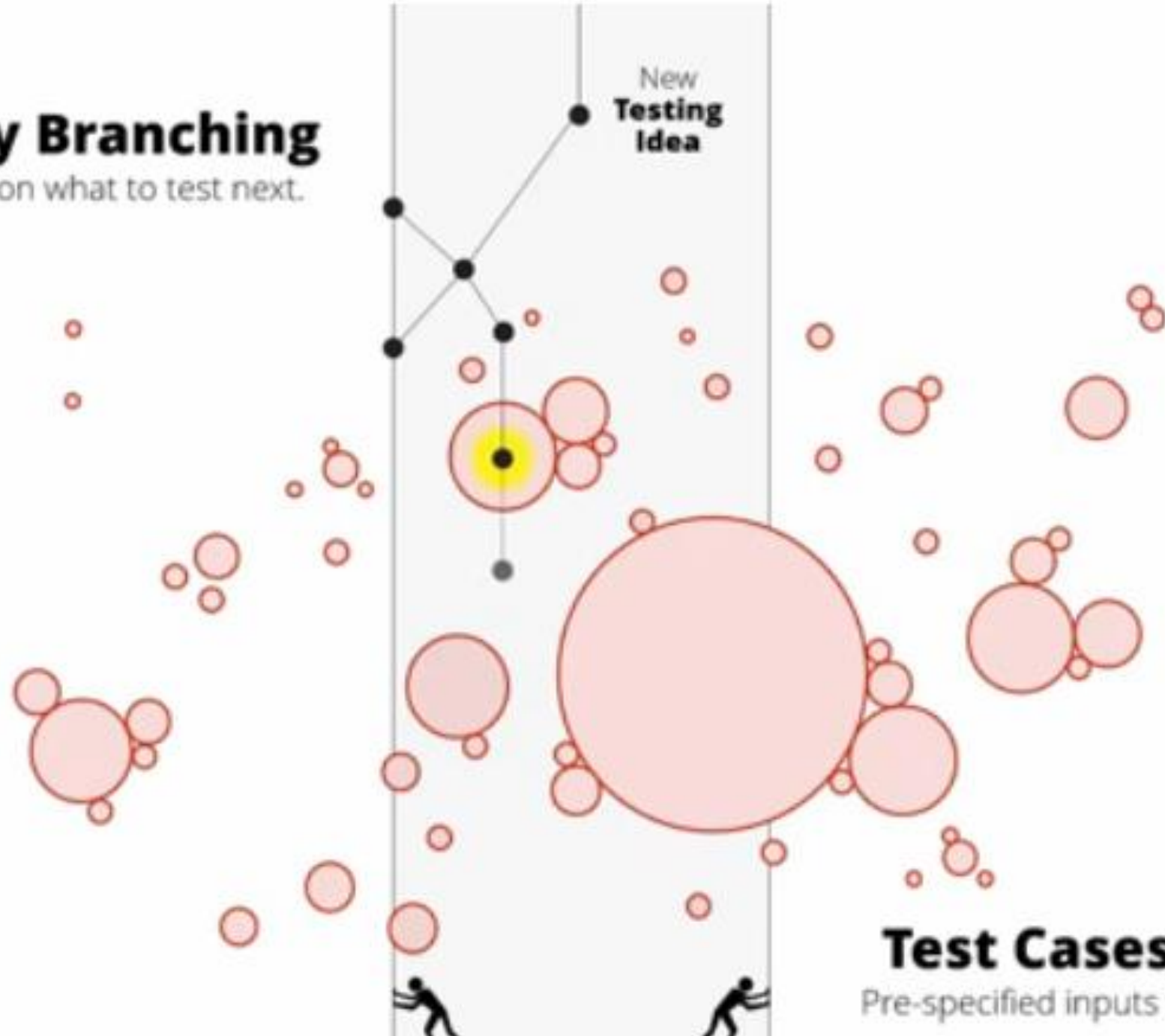
Test Design Techniques

Exploratory Testing

- ▶ Here it includes allocation of a part of the application which supposed to be explored.
- ▶ In exploratory testing, informal (not pre-defined) tests are designed, executed, logged, and evaluated dynamically during test execution.
- ▶ These doesn't require preparation of test cases instead a random or ADHOC approach is followed.
- ▶ *Test charter* containing test objectives are the basis to be followed for execution.
- ▶ The execution are *time boxed* with a range between 30 min to 120 min, depending on the size of the application.
- ▶ Executions are called as *test sessions or time boxed test sessions*.

Exploratory Branching

The art of deciding on what to test next.



Test Cases vs. **Scenarios**

Pre-specified inputs vs. hypothetical situation

