

# Test Management

Managing and controlling Test Activities

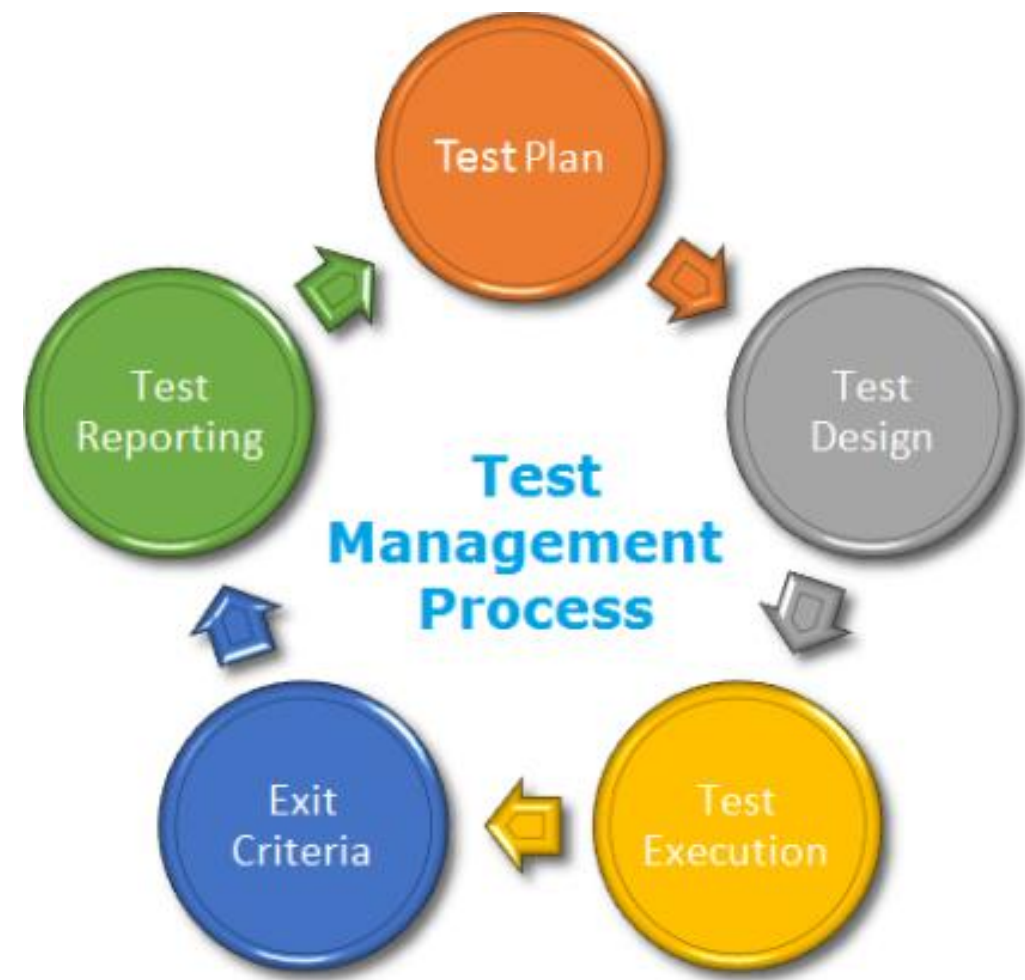
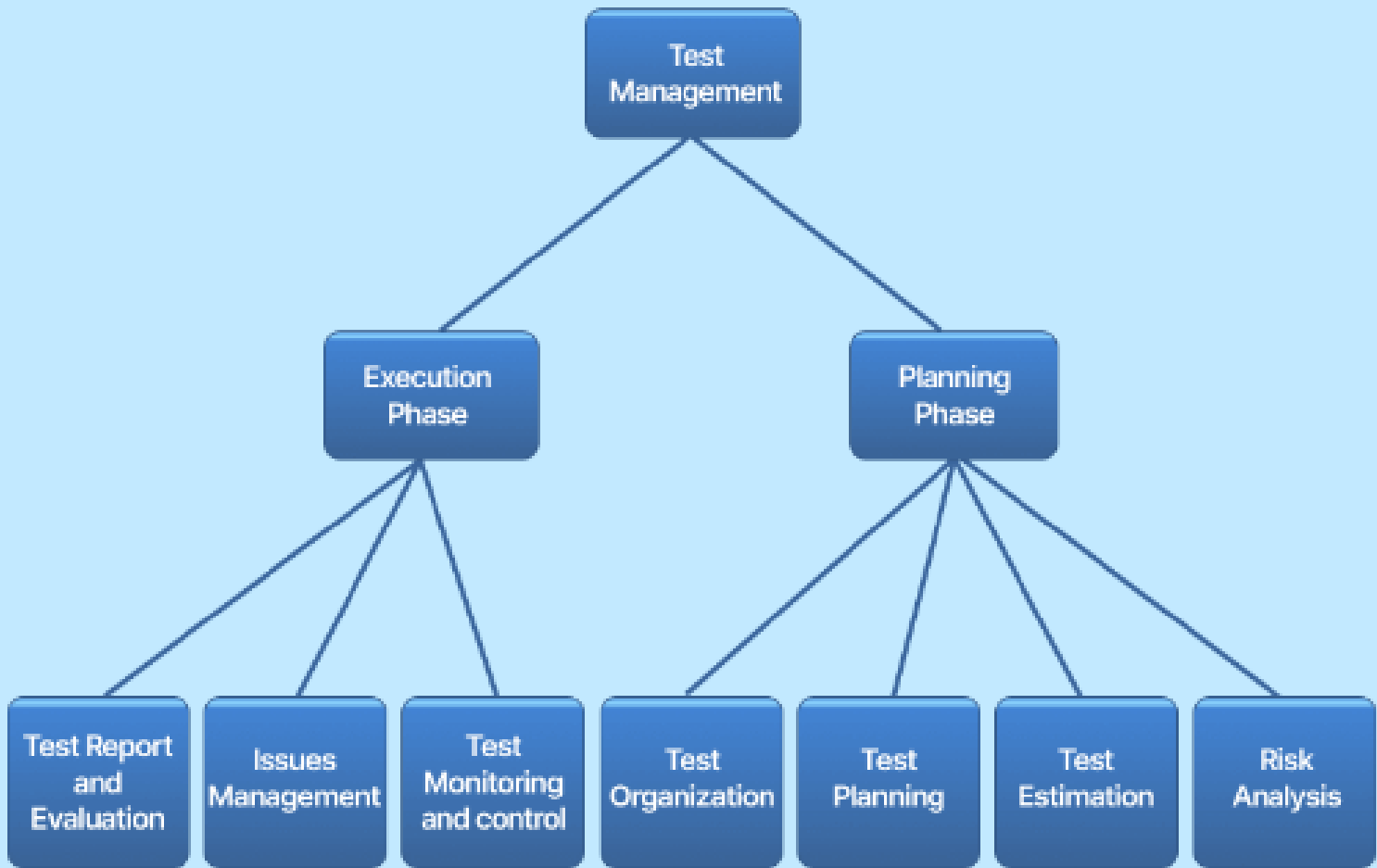
Test Management is the method of organizing, planning, and controlling the testing of a web product or system. It involves activities such as creating a test plan, identifying test cases, executing tests, and reporting results

Test Management is the practice of

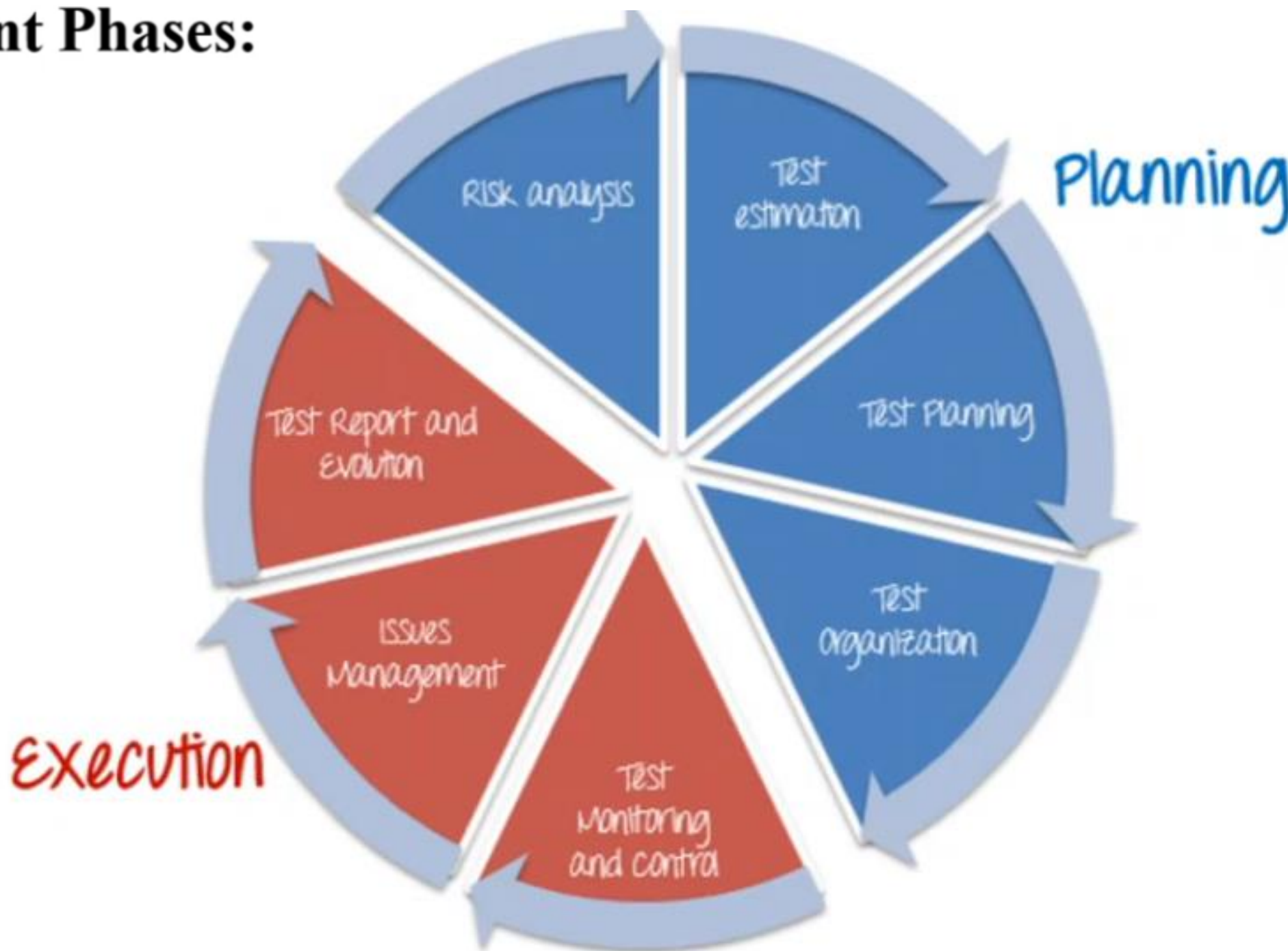
- **Organizing** and **controlling** the **Testing** process.
- **Ensuring visibility, traceability,** and **control** of testing process to deliver high-quality software.

**(i) automatically collecting and organizing test process related data**

**(ii) for use in cross-checking data from multiple sources**



# Test Management Phases:



# What is Test Management?

- ➡ Building & Leading Testing Team
- ➡ Defining Scope of Testing
- ➡ Planning, Deploying & Managing effort
- ➡ Applying Test Process & Metrics
- ➡ Handling Resource & Risks
- ➡ Test Reporting & Signoff

# Test Management Control

Test Management (Controls all the activities of the testing Cycle)

Test  
Planning

Test Strategy

Test  
Schedule

Test Case

Test  
Execution

Test  
Environment

Defect Cycle

Test Reports

# Why to Manage S/w Testing?

- ➡ Complex/Unclear Requirements
- ➡ Not enough time to test
- ➡ Not enough resources to test
- ➡ Budget constraints
- ➡ Multiple stakeholders
- ➡ Distributed team dependencies

# **How to Manage S/w Testing?**

**Create a To-Do List**

**Estimate Time & Cost  
Plan**

**Assign Resources**

**Access Risk(s)**

**Start Execution**

**Monitor & Adjust**

**Perform Retrospective**

**Evaluate**



# Test Management

## Phases

- Risk Analysis
- Test Estimation
- Test Planning
- Test Organization ○ Organizing Perfect Team for Testing
- Test Monitoring and Control ○ Tracking Project Progress and Controlling
- Issues Management ○ Handling the problems
- Test Report ○ Assessing Quality, Coverage etc.

## Components

- Test Documentation ○
  - Test Policy
  - Test Strategy (Approach)
  - Test Plan ○
    - Scope
    - Environments
    - Schedule
    - Resources, Roles and Responsibilities
    - Deliverables
    - Entry and Exit Criteria
    - Risk Analysis and Solution
- Test Estimation ○
- Test Metrics ○
- Test Progress Measurement ○
- Monitoring Metrics in Testing Life Cycle ○

## Tools

# Test Management

## Components

Test Estimation

Factors Affecting

Required Level of Quality

Application Size

Historical Data

Test Environments

Tools

Process Complexity

Strategy

Training

Knowledge Transfer

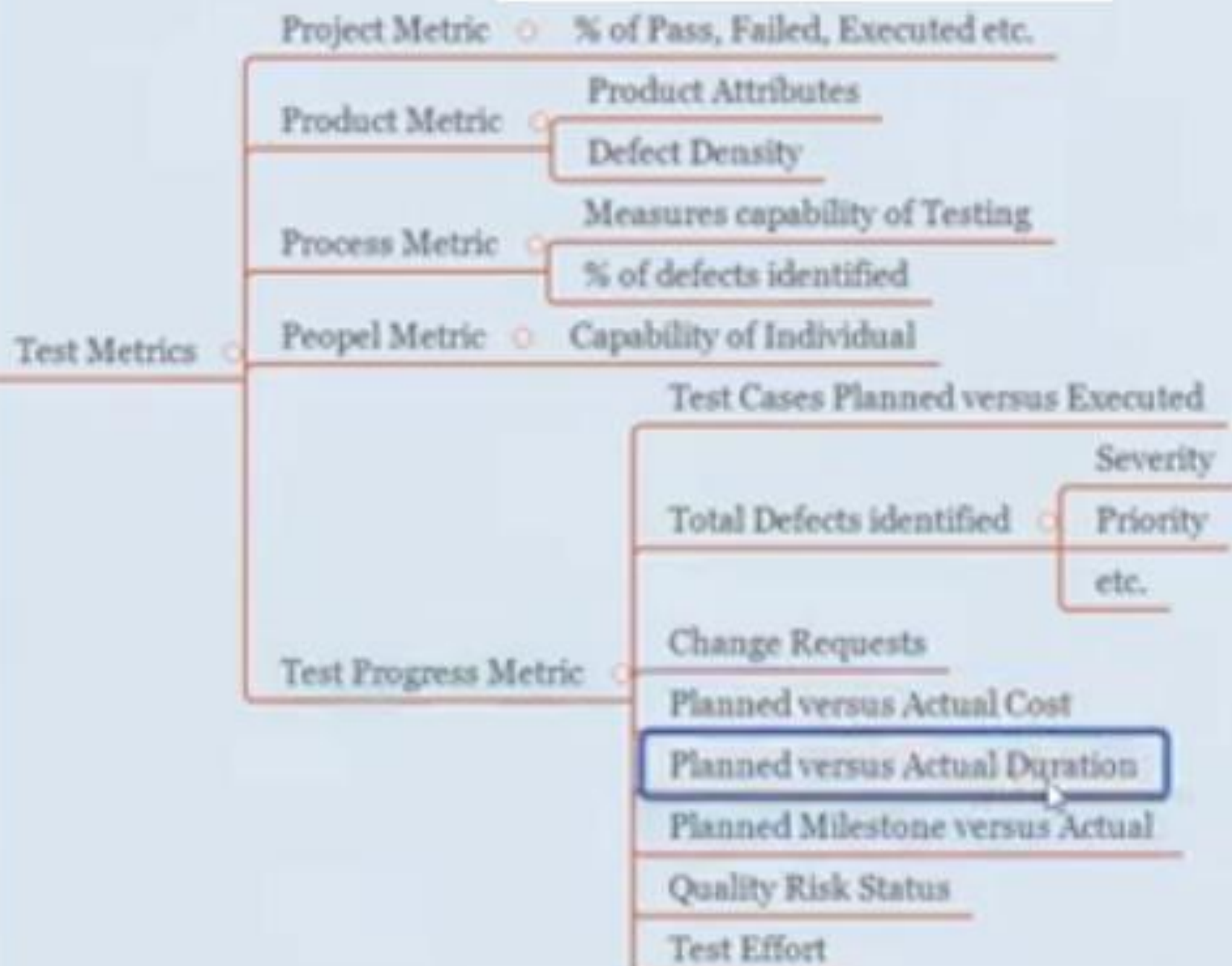
Technology

Test Specifications

Test Data

Resources

## Components



# Test Management

## Components

### Test Progress Measurement

Product Risk ⊕

Defects ⊕

Tests ⊕

Coverage ⊕

Requirements Coverage

Design Coverage

Risk Coverage

Environments Coverage

Code Coverage

Monitoring Metrics in Testing Life Cycle ⊕

## Tools

# Test Management

## Components

### Monitoring Metrics in Testing Life Cycle

#### Monitoring Test Plan

- Number of Risks
- Number of Requirements
- Defect Discovery
- Planned versus Actual Efforts

#### Monitoring Test Design

- Defects identified during Test Design

#### Monitor Test Analysis

- Number of Conditions
- Number of Defects in Analysis

#### Monitor Test Implementation

- % of environment configuraiton
- % of test case automated

#### Monitor Execution

- % Test Cases Pass, Fail
- % of Test Cases checked
- % Test Cases Automated

#### Monitor Closure

- Defect Resolved
- Defect Not Resolved
- % Work Product Tested

## Tools

# Test Management

## Tools

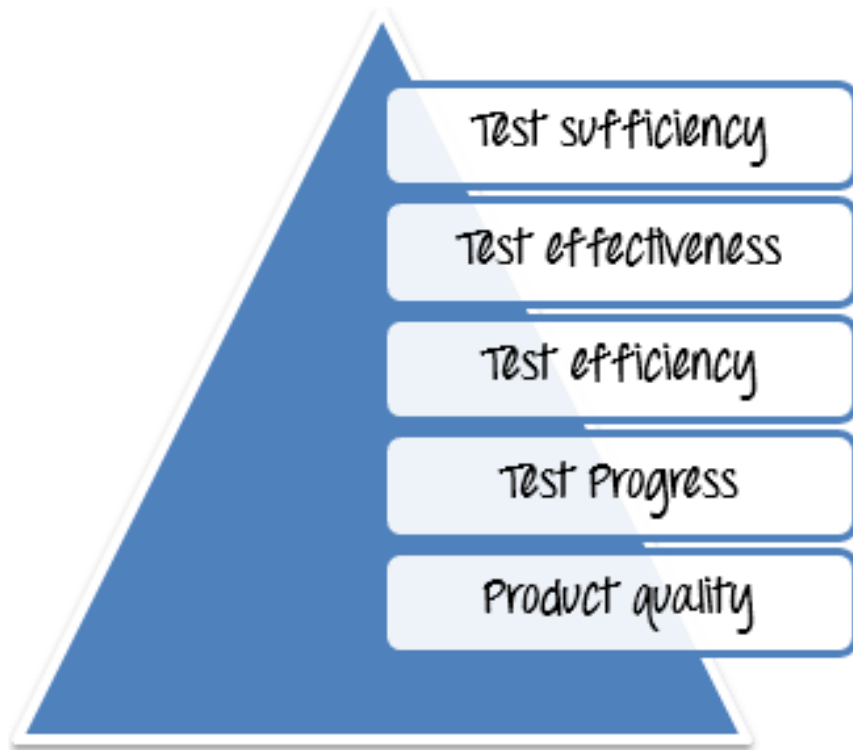
- Jira
  - Zephyr
  - XRay
- TestRail
- TestLink
- Redmine
- Bugzilla
- PractiTest
- qTest
- VersionOne
- AnyAUT
- TestFlow
- TestLodge
- Testuff
- ALM (QC)
- QAComplete
- And many more



- \* Create test specification Documents
- \* Define "Test Case" work items
- \* Link Test Cases for traceability
- \* Browse & read Test Runs
- \* Run manual tests & log results in EXISTING Test Run
- \* Run automated tests in Builds

## Role & Responsibilities of Test Manager / Test Lead

- **Building** up and **leading** the Testing Team to the success of project
- **Defining** the scope of testing within the context of each release / delivery
- **Deploying** and **managing** resources for testing
- **Applying** the appropriate test measurements and metrics in the product and the Testing Team
- **Planning, deploying** and **managing** the testing effort for any given engagement.



### What

- **What** is the role of Test Manager in the project?

### Why

- **Why** does the project need a Test Manager?

### How

- **How** can I build and lead a Testing Team effectively?





















