SNS COLLEGE OF TECHNOLOGY

Kurumbapalayam (Po), Coimbatore – 641 035

An Autonomous Institution

Accredited by NAAC – UGC with 'A++' Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

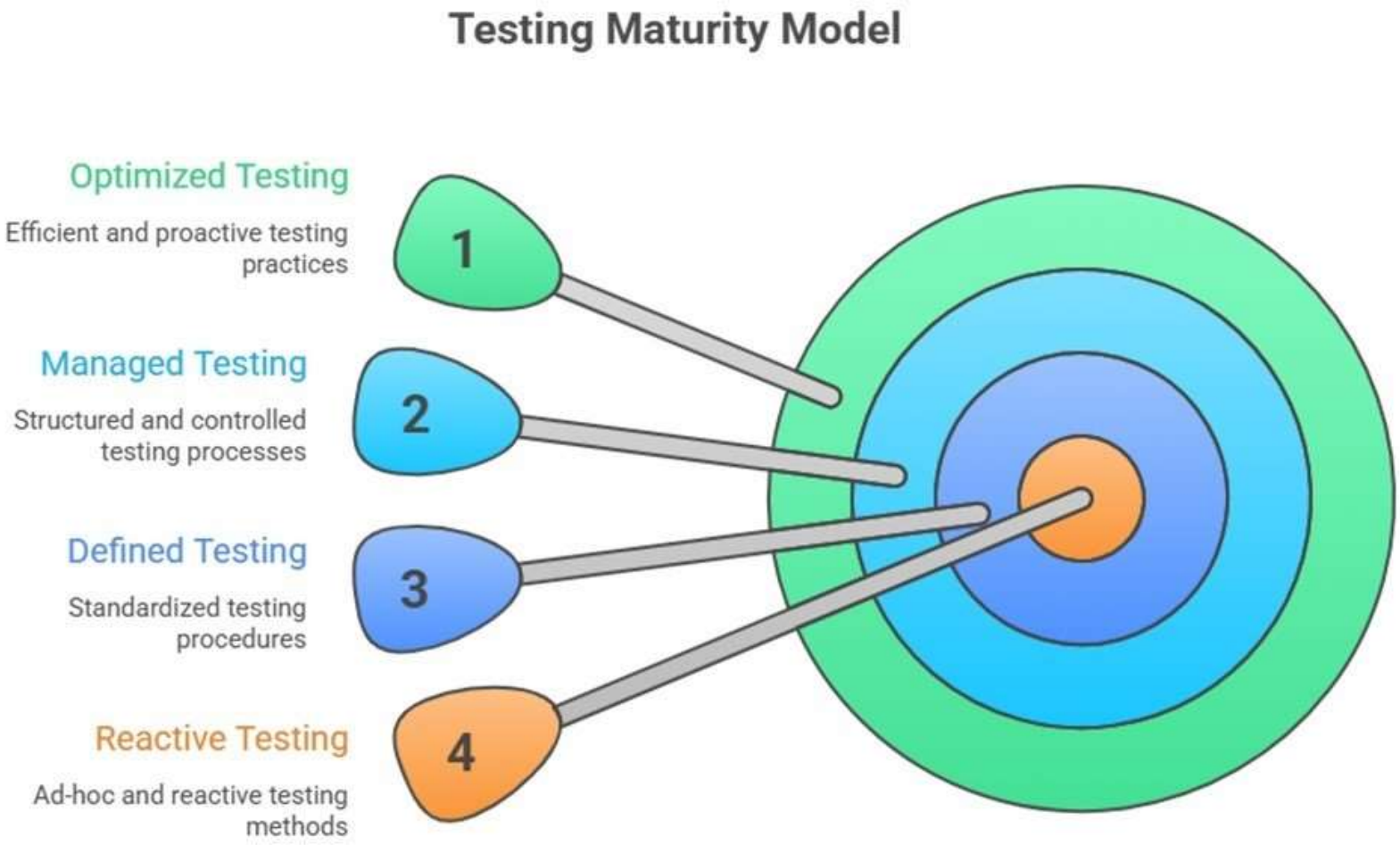
COURSE NAME: 23ITO201 SOFTWARE TESTING (OPEN ELECTIVE)

III YEAR / VI SEMESTER

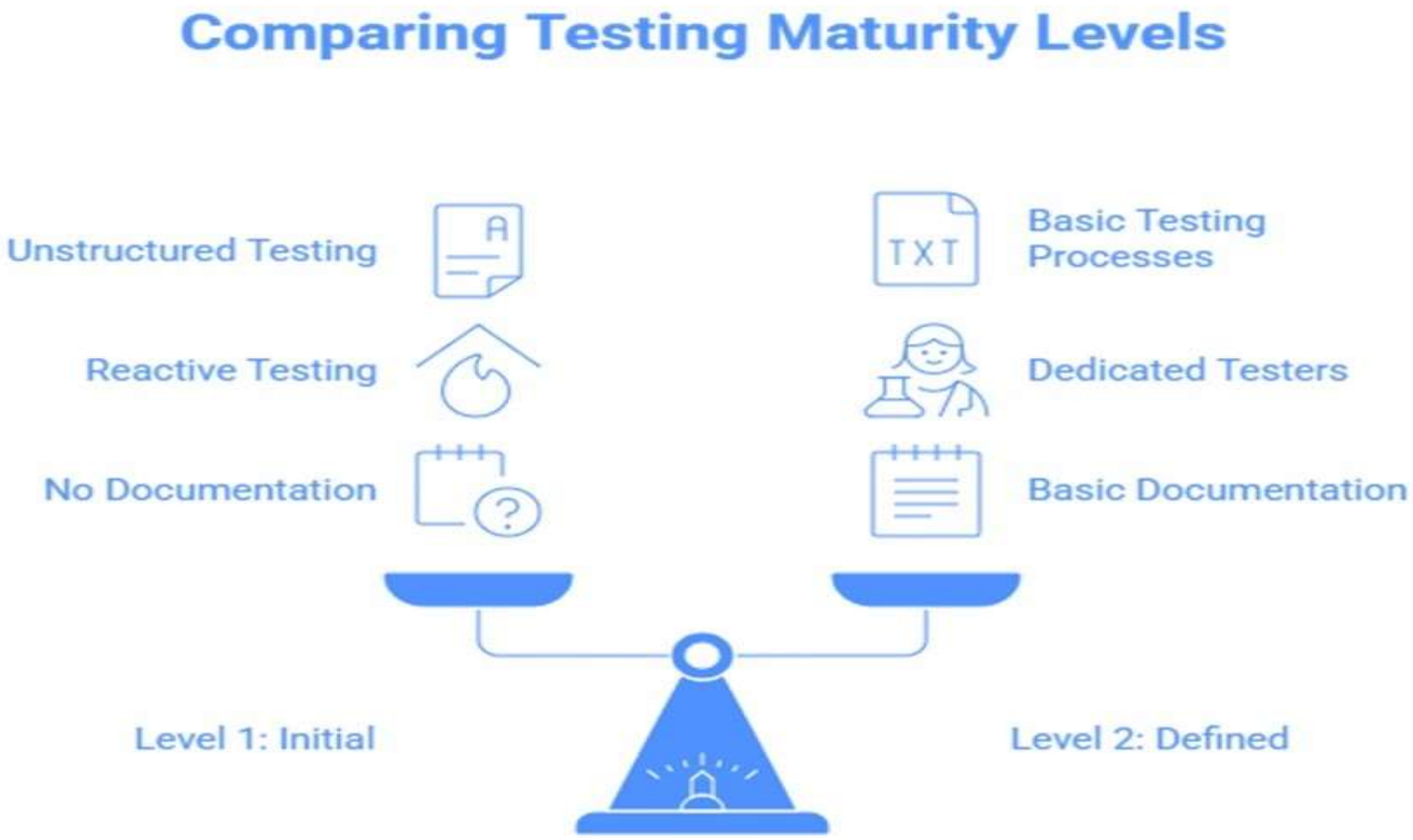
Unit 1 - INTRODUCTION

Topic 3 : Testing Maturity Model

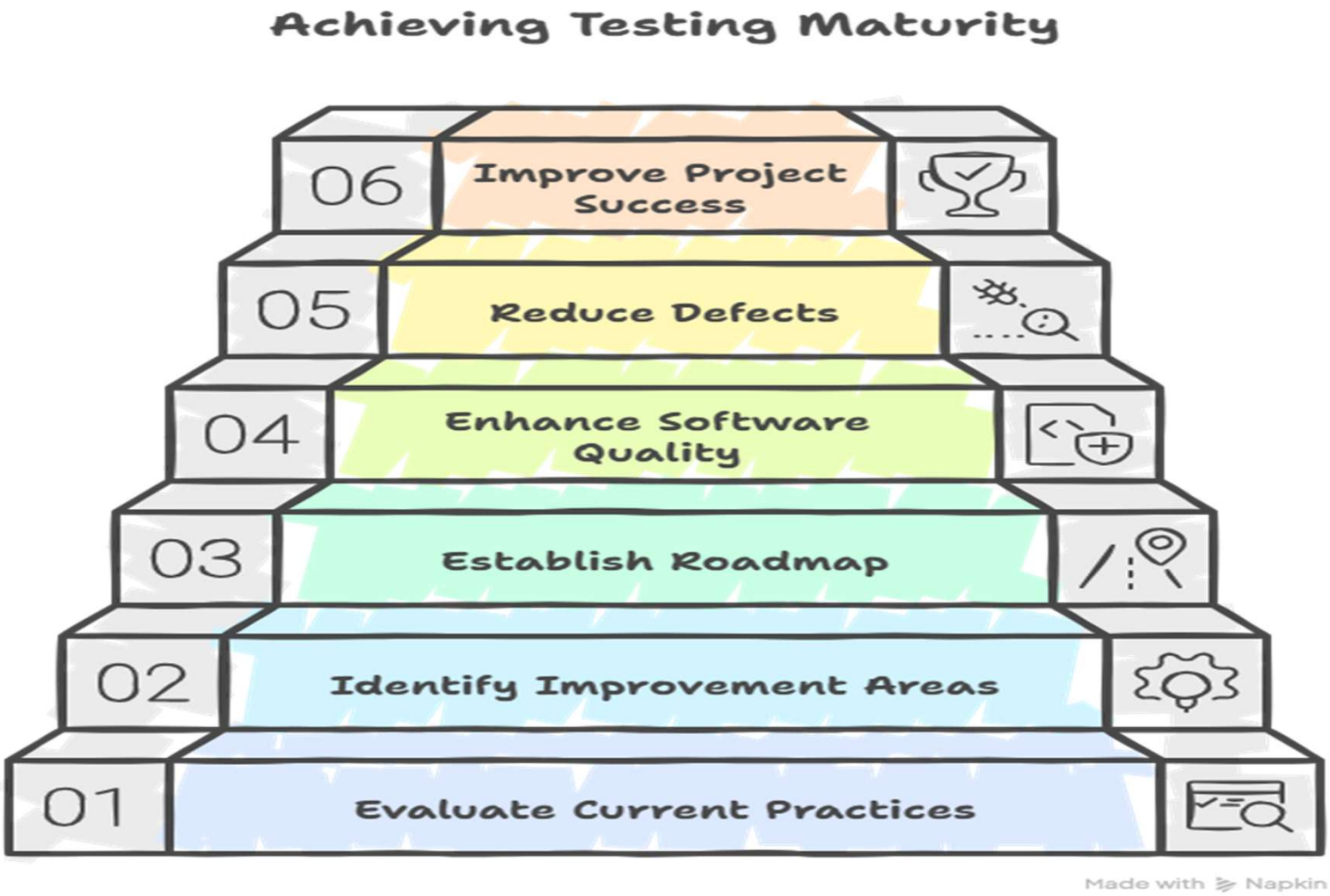
Recall in Testing Maturity Model



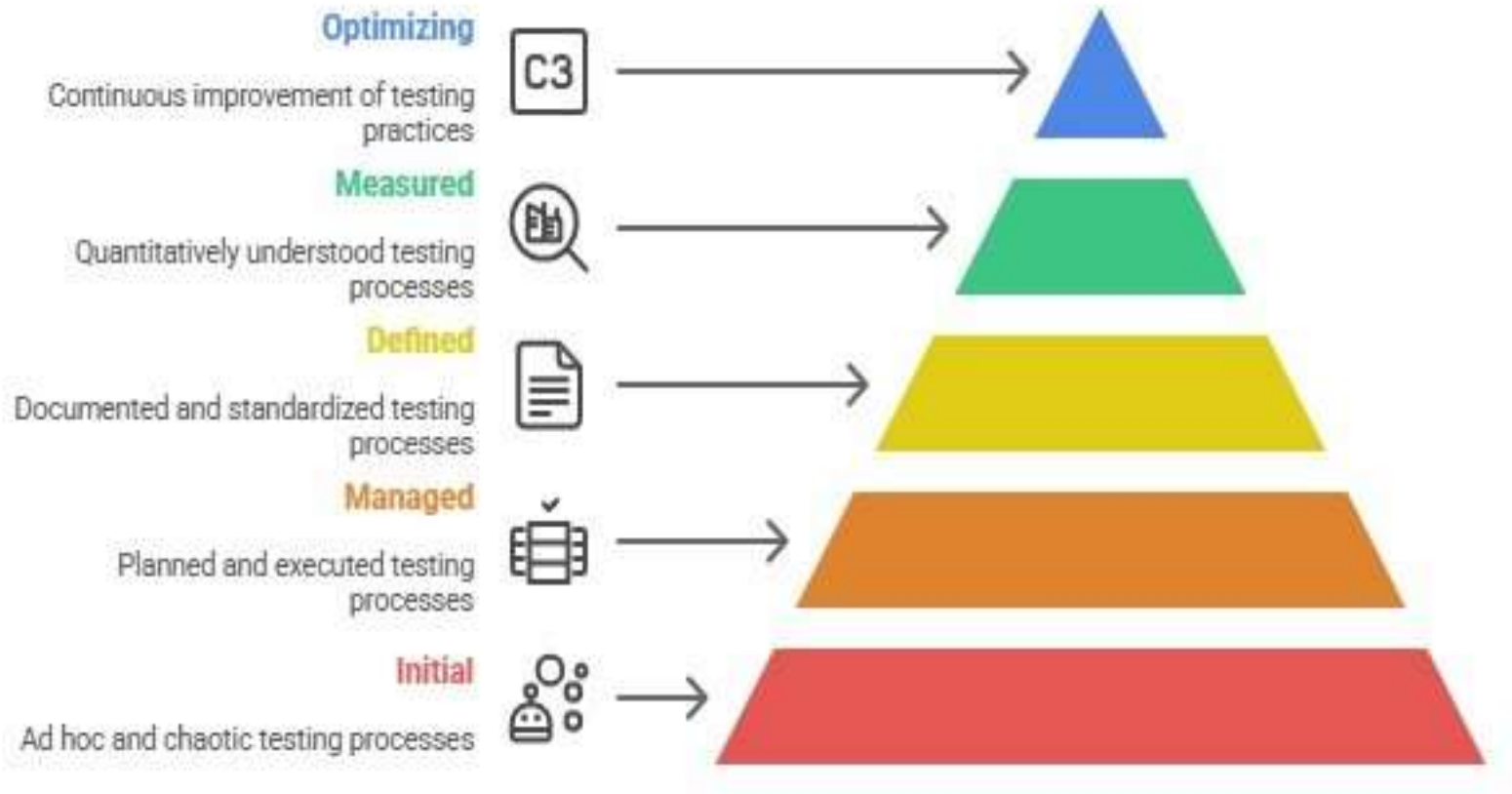
Empathy in Comparing Testing Maturity Levels

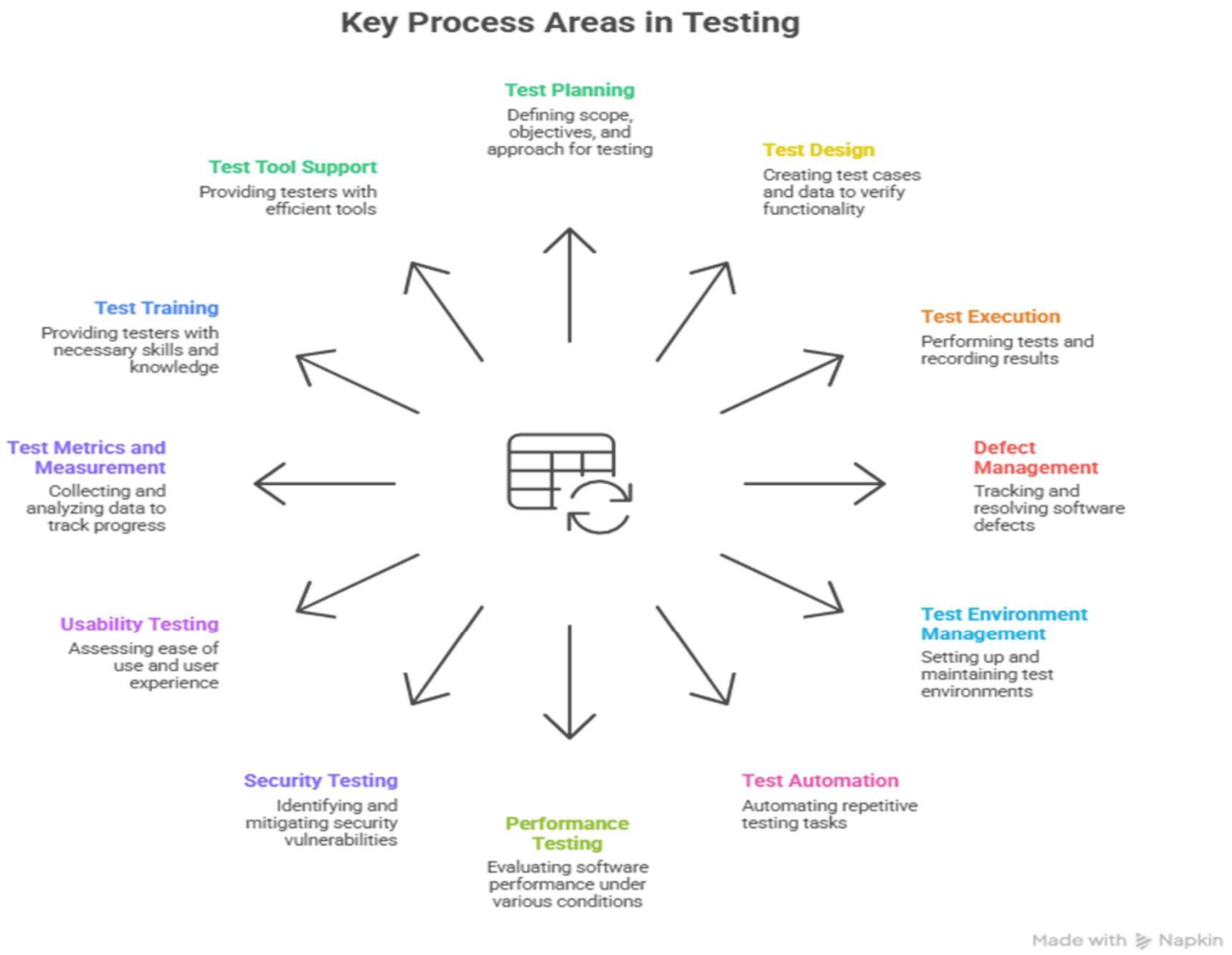


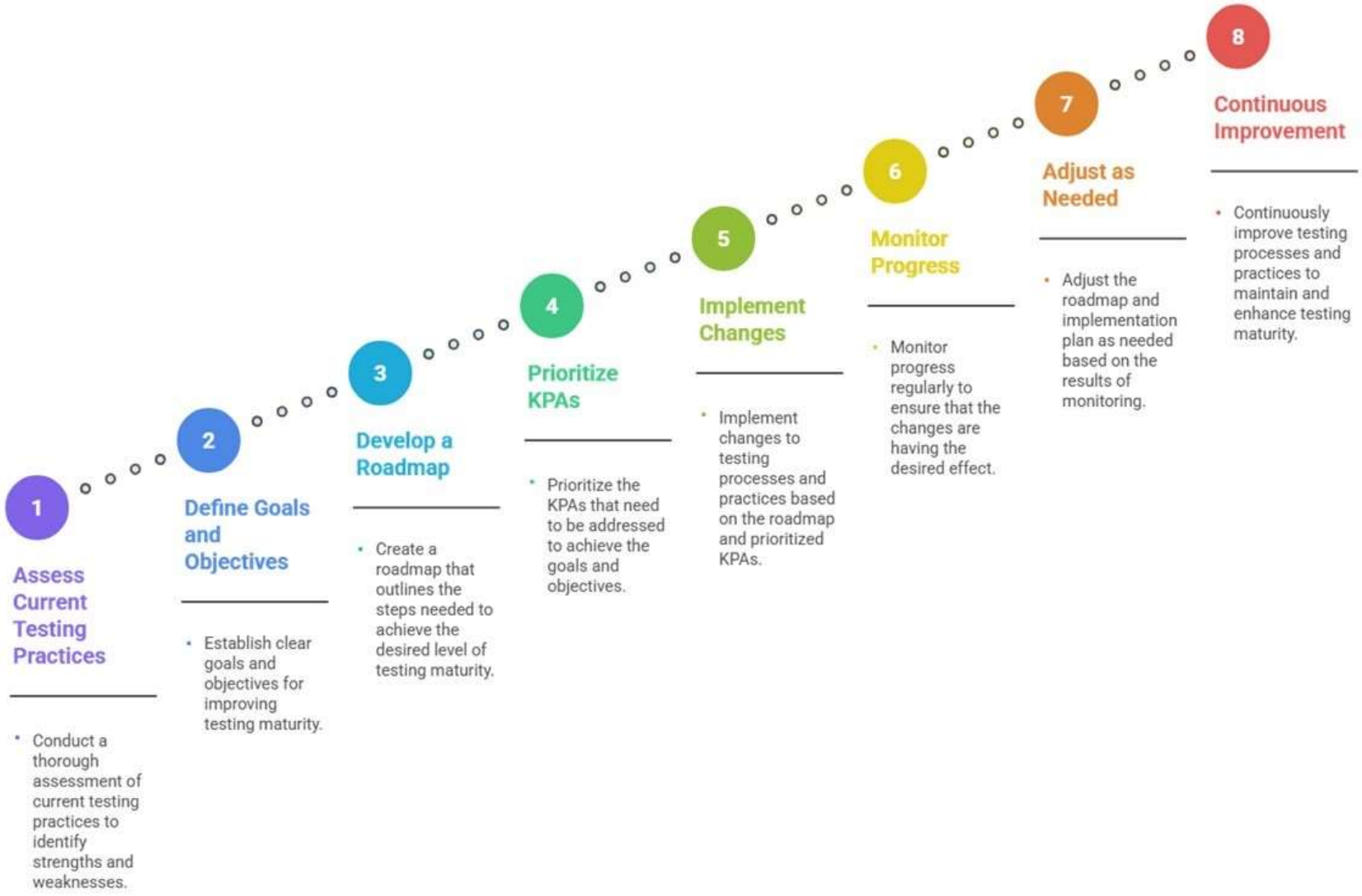
Achieving Testing Maturity



Testing Maturity Pyramid

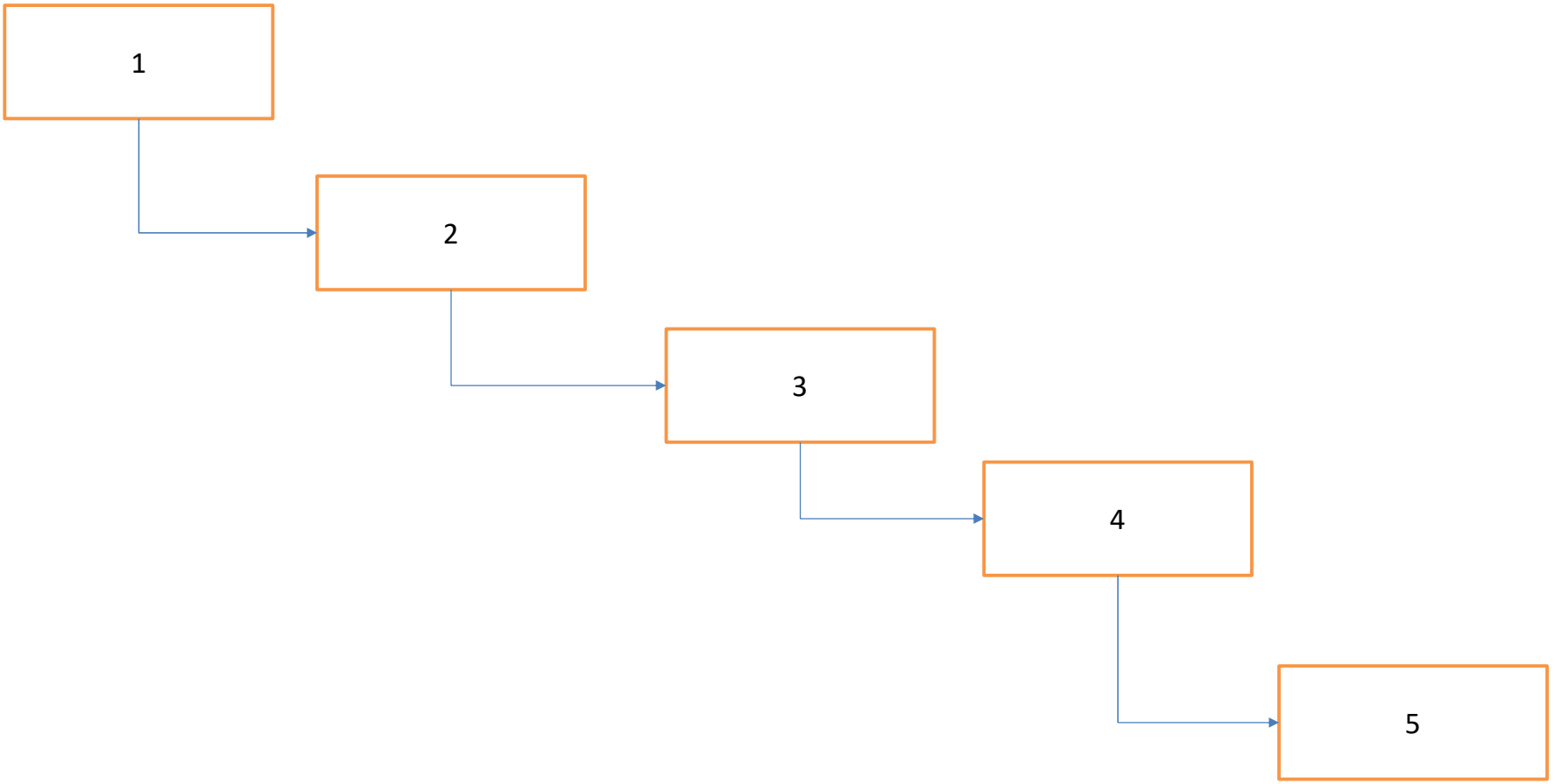



Key Process Areas in Testing
Test Planning
Defining scope, objectives, and approach for testing
Test Design
Creating test cases and data to verify functionality
Test Execution
Performing tests and recording results
Defect Management
Tracking and resolving software defects
Test Environment Management
Setting up and maintaining test environments
Test Automation
Automating repetitive testing tasks
Performance Testing
Evaluating software performance under various conditions
Security Testing
Identifying and mitigating security vulnerabilities
Usability Testing
Assessing ease of use and user experience
Test Metrics and Measurement
Collecting and analyzing data to track progress
Test Training
Providing testers with necessary skills and knowledge
Test Tool Support
Providing testers with efficient tools
Made with Napkin


Implementing a Testing Maturity Model
1
Assess Current Testing Practices
Conduct a thorough assessment of current testing practices to identify strengths and weaknesses.
2
Define Goals and Objectives
Establish clear goals and objectives for improving testing maturity.
3
Develop a Roadmap
Create a roadmap that outlines the steps needed to achieve the desired level of testing maturity.
4
Prioritize KPAs
Prioritize the KPAs that need to be addressed to achieve the goals and objectives.
5
Implement Changes
Implement changes to testing processes and practices based on the roadmap and prioritized KPAs.
6
Monitor Progress
Monitor progress regularly to ensure that the changes are having the desired effect.
7
Adjust as Needed
Adjust the roadmap and implementation plan as needed based on the results of monitoring.
8
Continuous Improvement
Continuously improve testing processes and practices to maintain and enhance testing maturity.

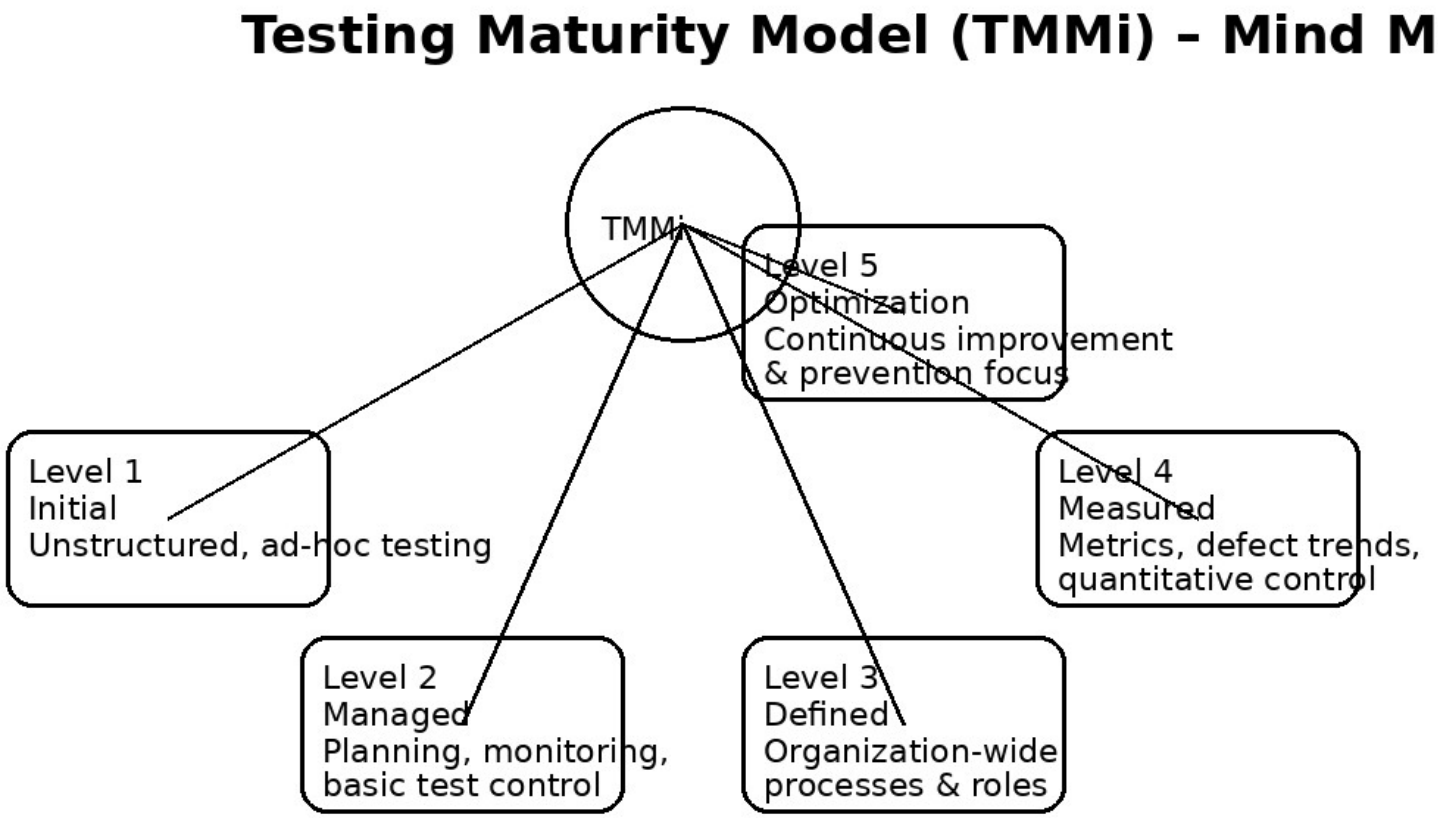
Activities

Activity 1: Testing Maturity Model



Unveiling the Multifaceted Benefits of TMM

Mind Map


Testing Maturity Model (TMMi) – Mind Map
TMMi
Level 5
Optimization
Continuous improvement
& prevention focus
Level 1
Initial
Unstructured, ad-hoc testing
Level 4
Measured
Metrics, defect trends,
quantitative control
Level 2
Managed
Planning, monitoring,
basic test control
Level 3
Defined
Organization-wide
processes & roles

ASSESSMENT

MCQs on Testing Maturity Model (TMM / TMMi)

1

Which level in the Testing Maturity Model represents ad-hoc, unstructured testing?

A. Level 1 — Initial

B. Level 0 — Initial/Undefined

C. Level 2 — Managed

D. Level 3 — Defined

Answer: B

In TMMi, which level focuses on basic test planning and control?

A. Level 1

B. Level 2

C. Level 3

D. Level 4

Answer: B

TEXT BOOKS	
1.	Srinivasan Desikan and Gopalaswamy Ramesh, ―Software Testing – Principles and Practices, Pearson Education, 2006.
REFERENCES	
1.	Ilene Burnstein, ―Practical Software Testing, Springer International Edition, 2003
2.	Edward Kit, Software Testing in the Real World – Improving the Process‖, Pearson Education, 1995
3.	Boris Beizer, Software Testing Techniques – 2nd Edition, Van Nostrand Reinhold, New York, 1990.
4.	Aditya P. Mathur, ―Foundations of Software Testing _ Fundamental Algorithms and Techniques, Dorling Kindersley (India) Pvt. Ltd., Pearson Education, 2008.

THANK YOU