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

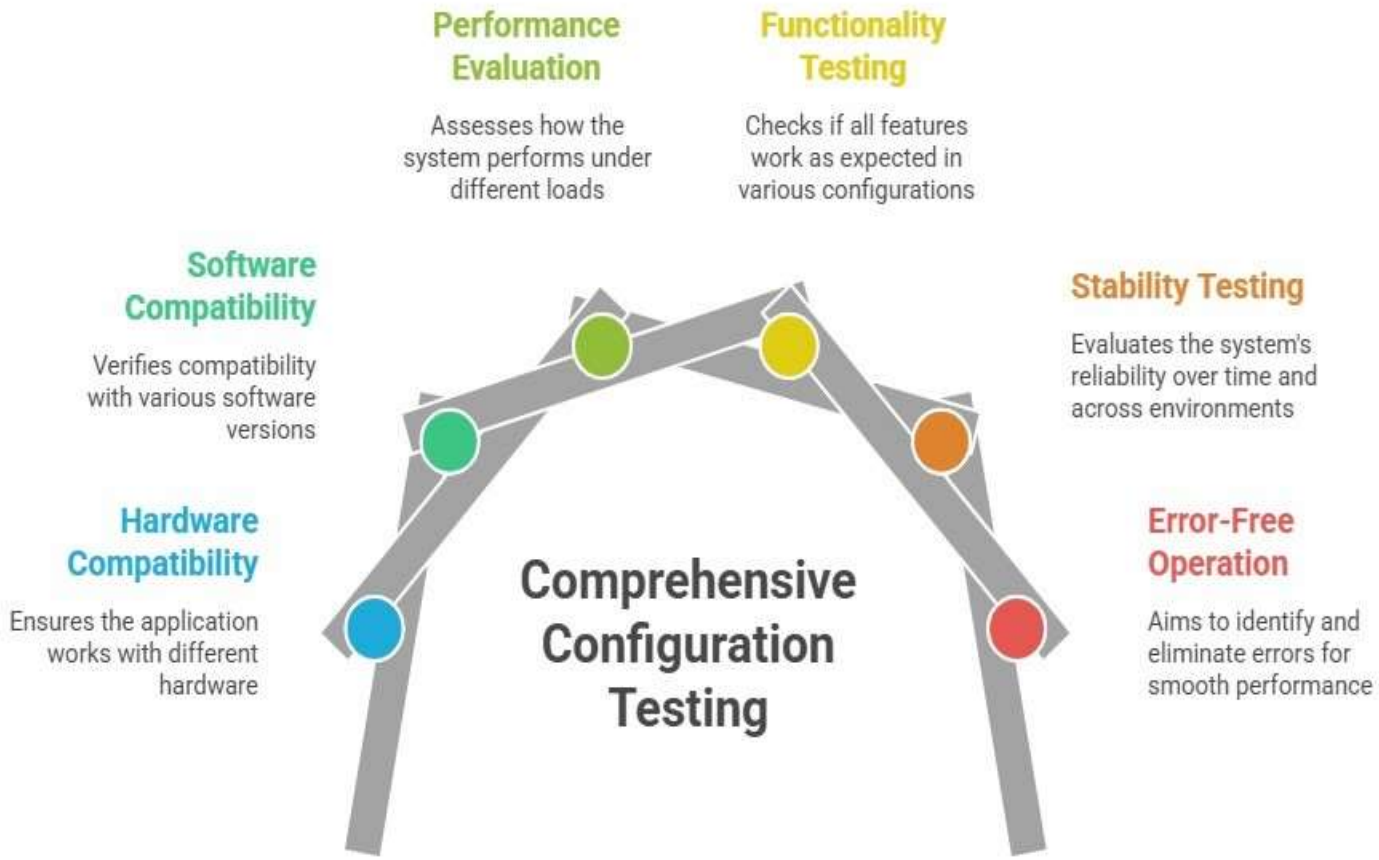
COURSE NAME: 23ITO201- Software Testing (OPEN ELECTIVE)

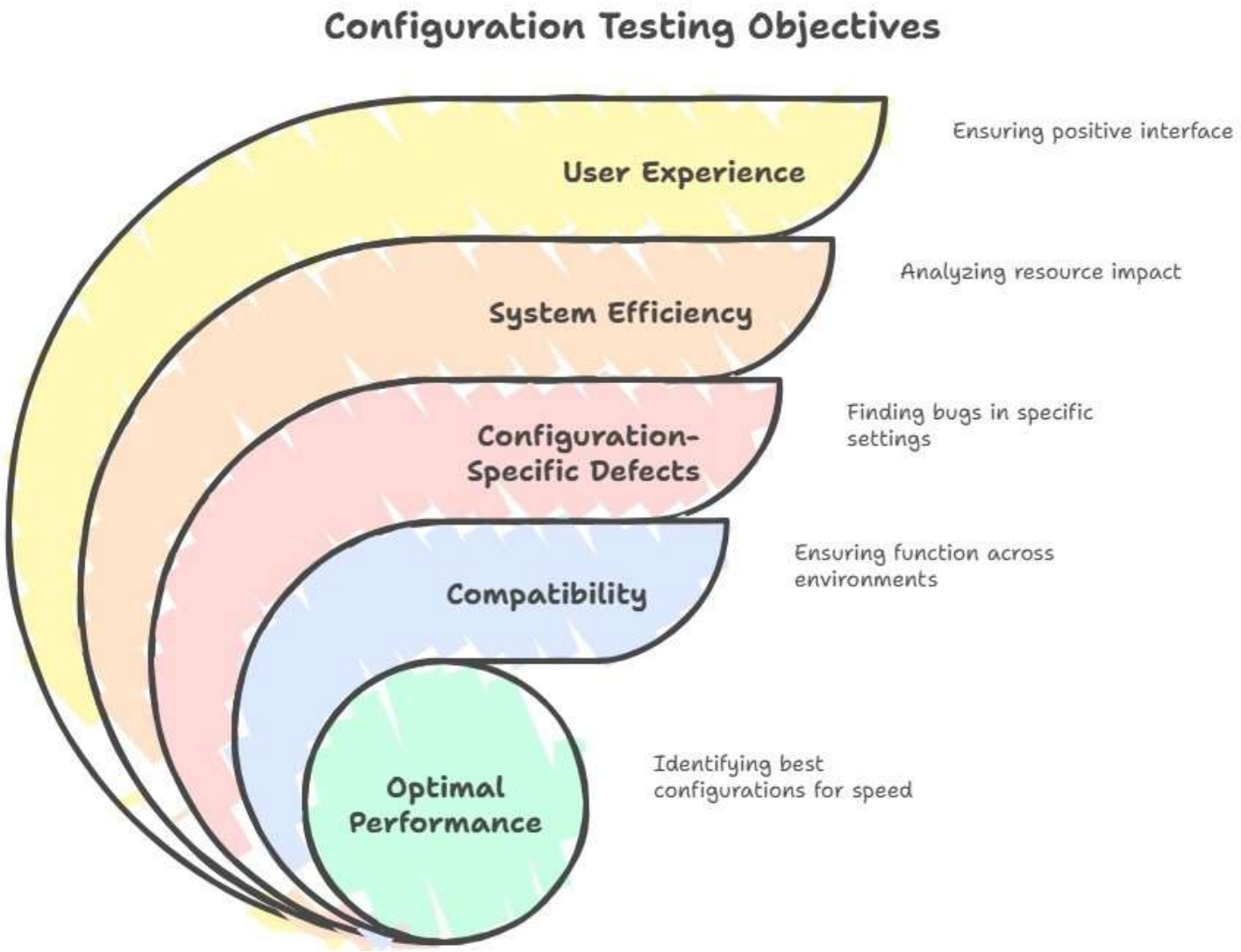
III YEAR / VI SEMESTER

Unit 3 - LEVELS OF TESTING

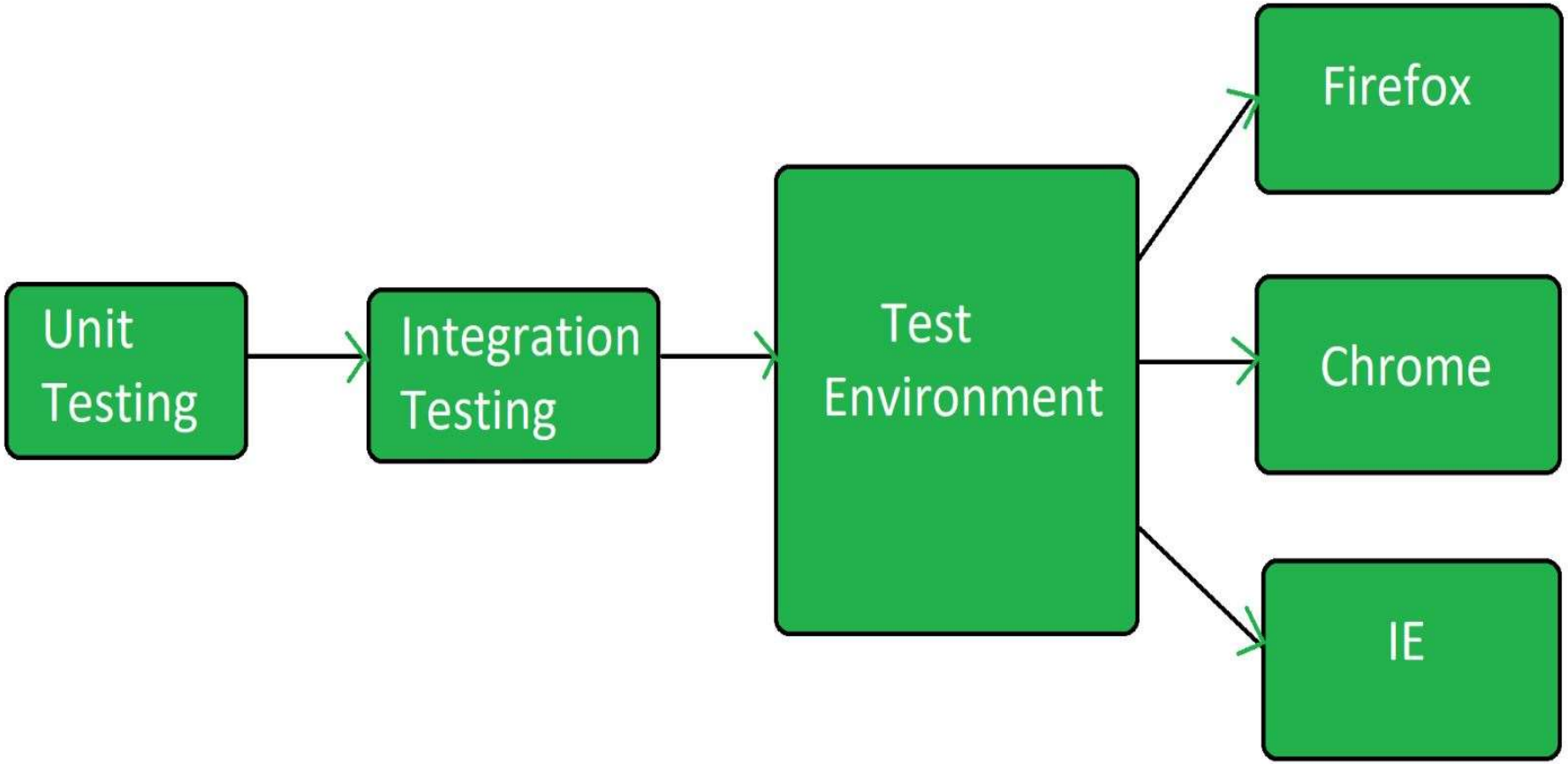
Topic : Configuration testing , Compatibility testing , Testing the documentation and Website testing

Empathy

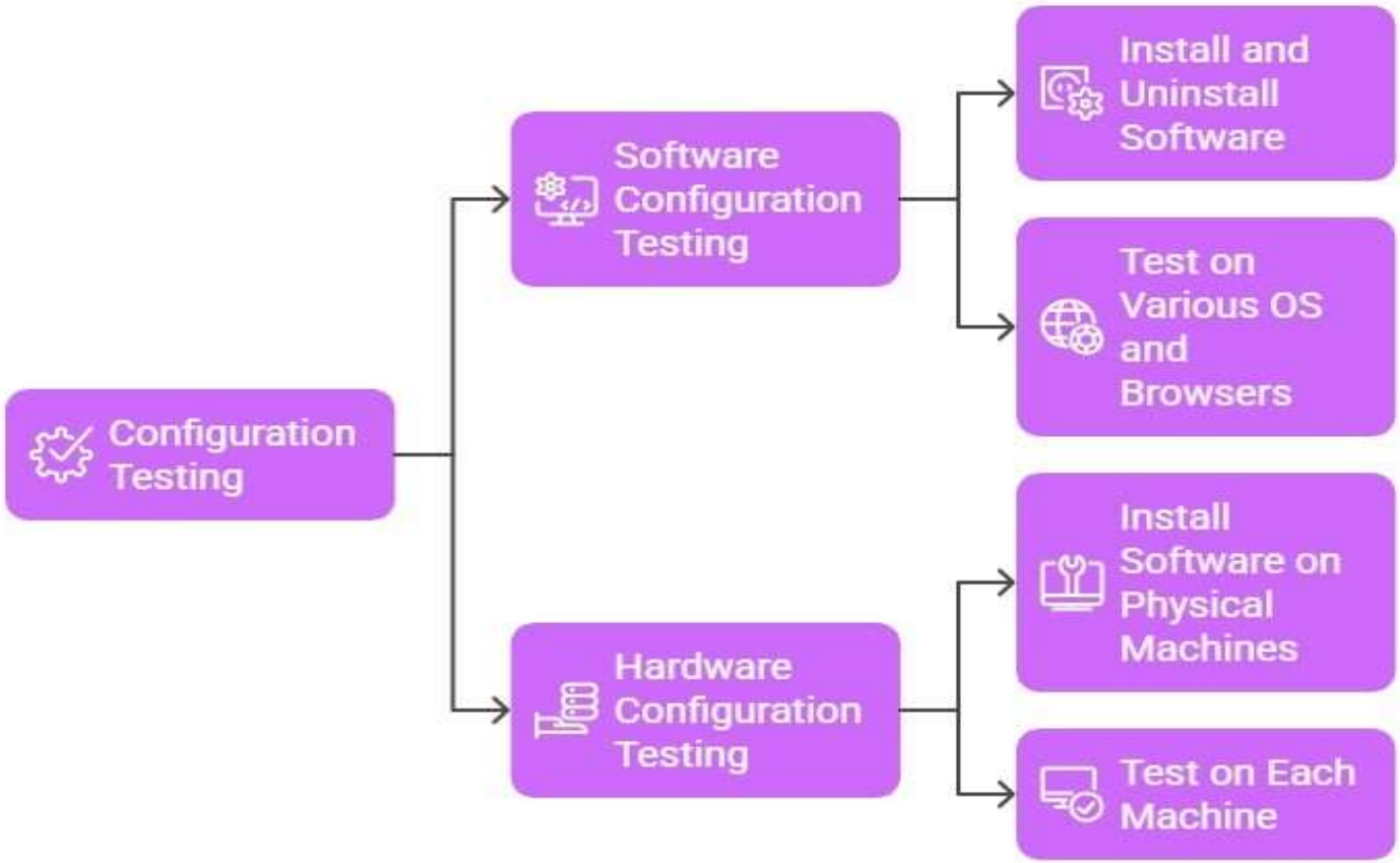

Performance Evaluation
Assesses how the system performs under different loads
Functionality Testing
Checks if all features work as expected in various configurations
Software Compatibility
Verifies compatibility with various software versions
Stability Testing
Evaluates the system's reliability over time and across environments
Hardware Compatibility
Ensures the application works with different hardware
Comprehensive Configuration Testing
Error-Free Operation
Aims to identify and eliminate errors for smooth performance


Configuration Testing Objectives
User Experience
Ensuring positive interface
System Efficiency
Analyzing resource impact
Configuration-Specific Defects
Finding bugs in specific settings
Compatibility
Ensuring function across environments
Optimal Performance
Identifying best configurations for speed

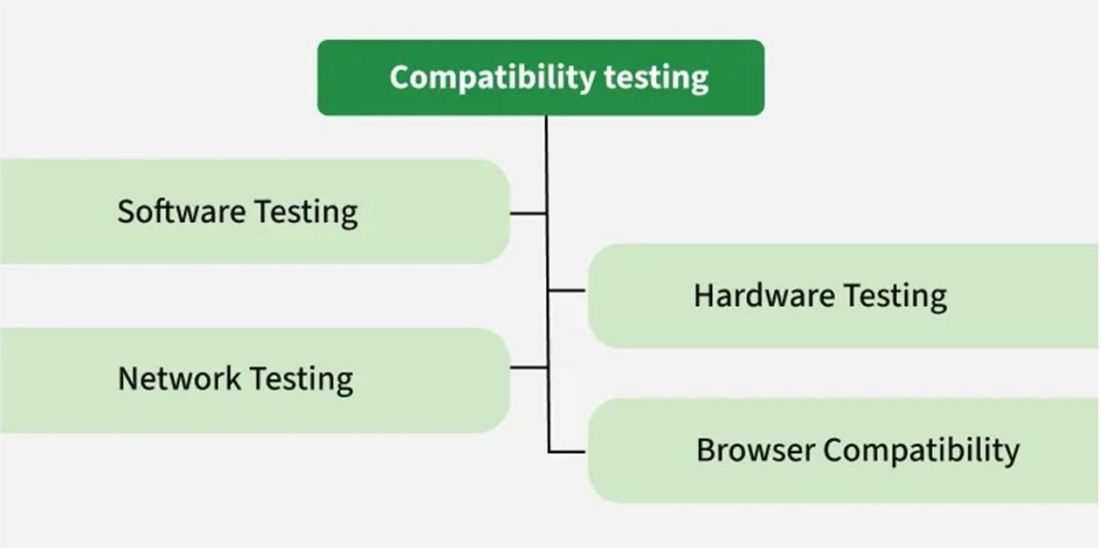
Configuration Testing Process

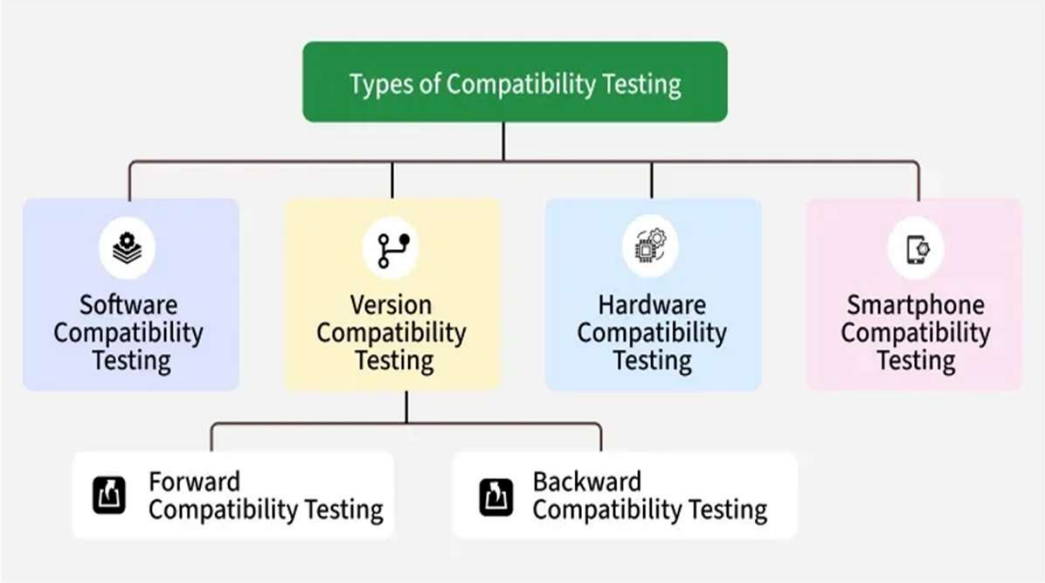


Types of Configuration Testing



Compatibility Testing re-sure that the **application functions** are correctly across different platforms, environments, and devices. It is crucial for identifying issues that could affect user experience and application performance before release





Compatibility Testing Defects

- Variety of user interface.
- Changes with respect to font size.
- Alignment issues.
- Issues related to existence of broken frames.
- Issues related to overlapping of content.

TESTING DOCUMENTATION

Documents Needed Before Testing

- SRS (Functional Requirements Reference)
- Test Policy (Defines early testing approach)
- Test Strategy (Team roles, responsibilities, process)
- Traceability Matrix (Maps & tracks requirements)

Documents Used During Testing

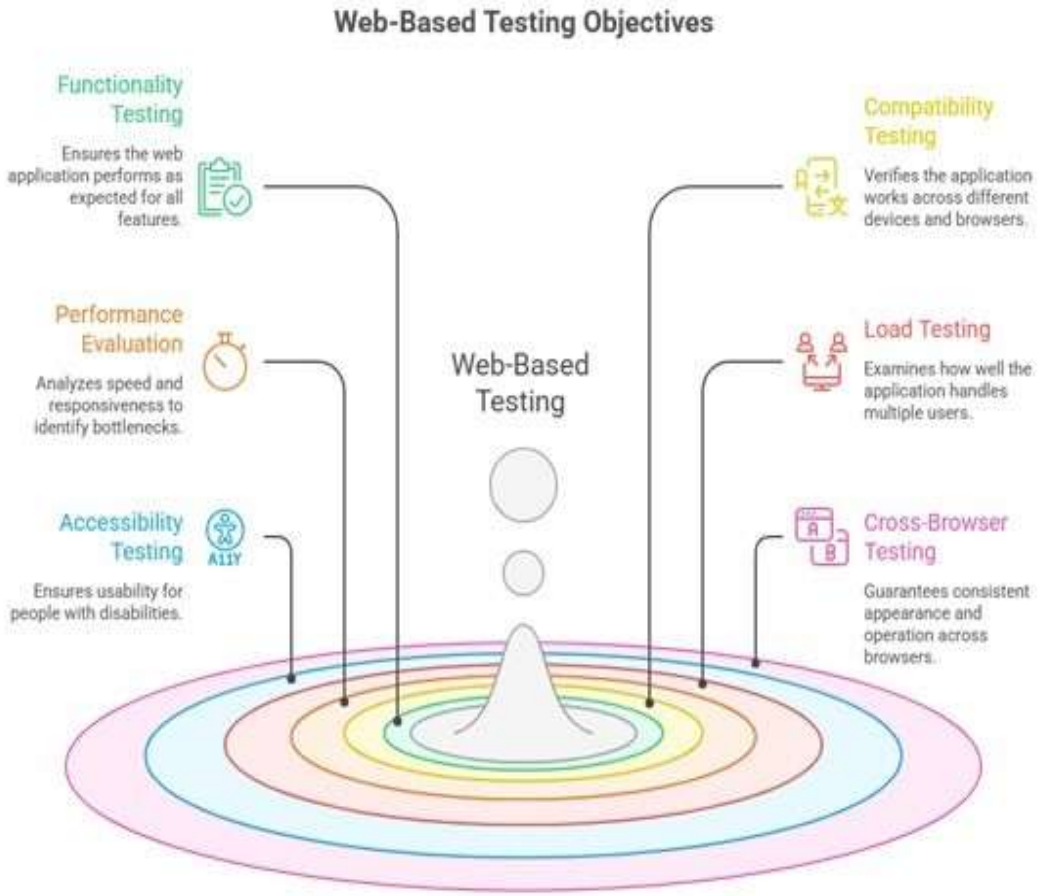
- Test Cases (Unit, Integration, System, Acceptance)
- Test Descriptions (Detailed execution steps)
- Test Case Reports (Results of test execution)
- Test Logs (Execution history & notes)

Documents After Testing

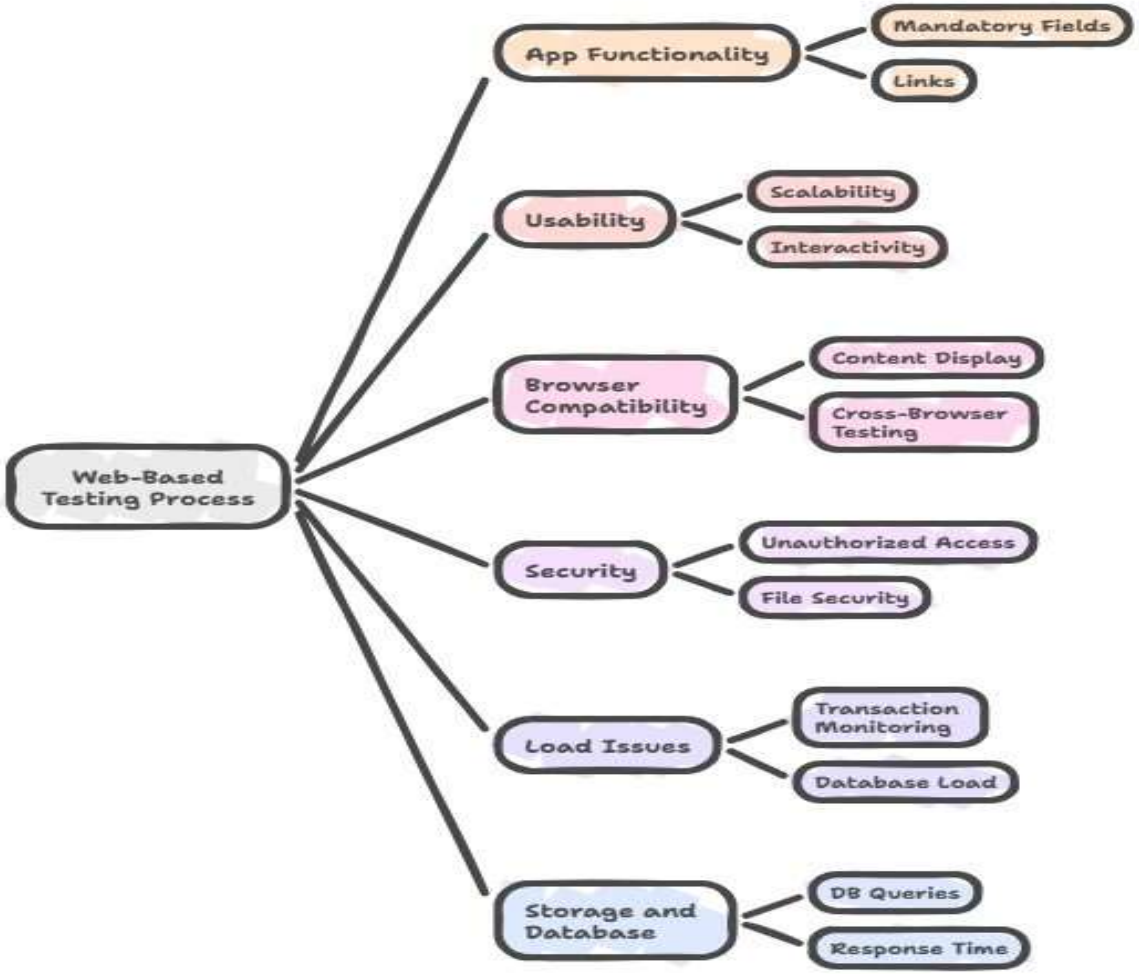
- Test Summary Report (Overall analysis)
- Version Release Notes (If ready for launch)
- Final Go/No-Go Decision

Website Testing

Web testing is a software testing technique to test web applications or websites for finding errors and bugs. A web application must be tested properly before it goes to the end-users. Also, testing a web application does not only mean finding common bugs or errors but also testing the quality-related risks associated with the application



Web-Based Testing Process



Activity

Configuration Testing
Activity Title: Testing Software in Different System Configurations
Scenario:
A software application must run on different system configurations such as various operating systems, memory sizes, and hardware setups.
Activity Task:
Students perform **Configuration Testing** to check whether the software works correctly under different configurations.
Steps:
1.Identify different **hardware and software configurations**.
2.Install the application on systems with **different OS or memory sizes**.
3.Run the same **test cases** on each configuration.
4.Observe any **performance or functional issues**.
5.Record results and report defects.

Learning Outcome:
Students understand how software behaves in **different system configurations**.

MCQ – Configuration Testing

1. What is the purpose of Configuration Testing?

A) To test network security

B) To check software behavior under different system configurations

C) To test database performance

D) To test only user interface

✅ **Answer:** B) To check software behavior under different system configurations

2. Configuration testing mainly focuses on:

A) Hardware and software combinations

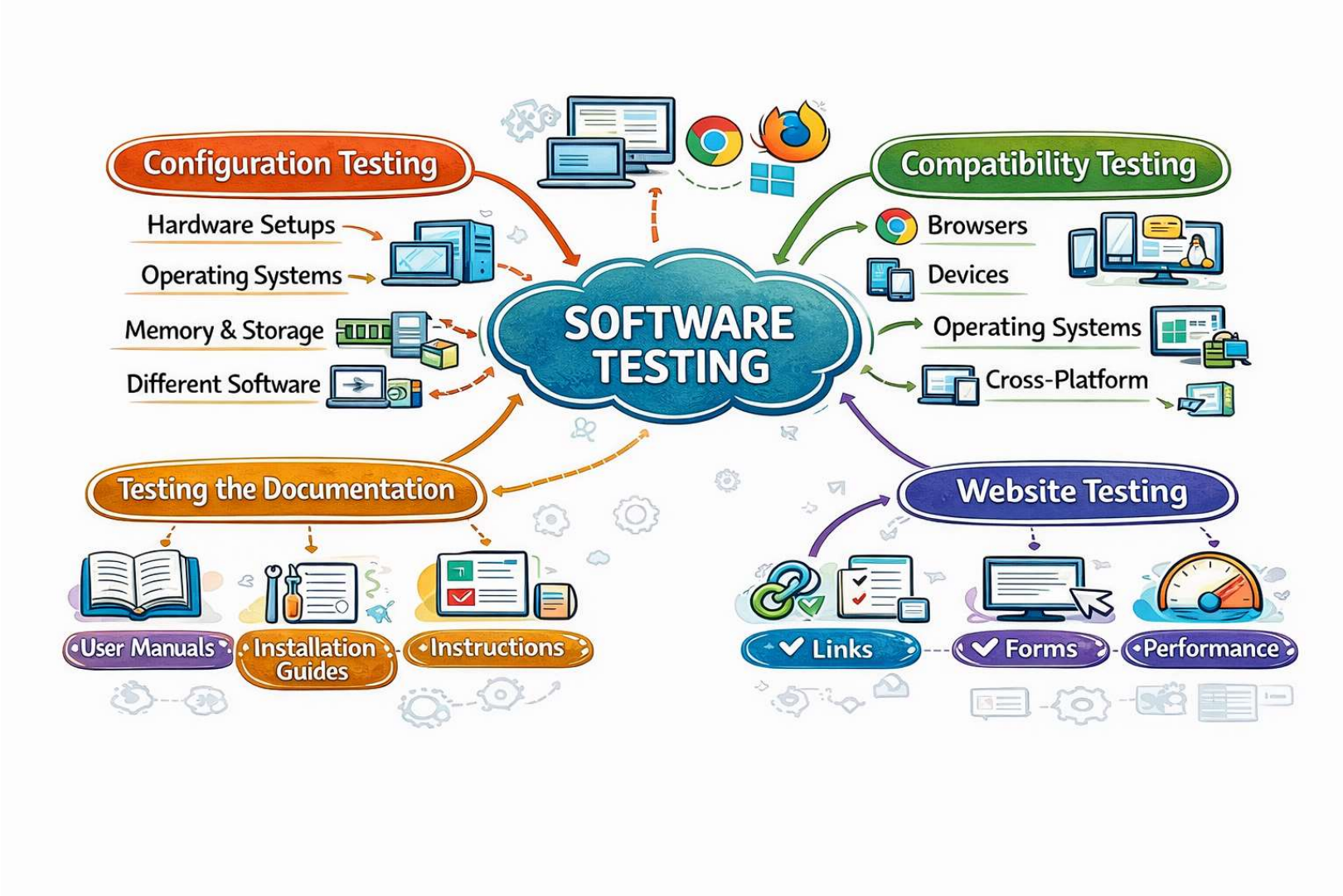
B) Coding standards

C) Internet speed

D) Data backup

✅ **Answer:** A) Hardware and software combinations

Mind Map


SOFTWARE TESTING
Configuration Testing
Hardware Setups
Operating Systems
Memory & Storage
Different Software
Compatibility Testing
Browsers
Devices
Operating Systems
Cross-Platform
Testing the Documentation
User Manuals
Installation Guides
Instructions
Website Testing
Links
Forms
Performance

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