

SNS COLLEGE OF TECHNOLOGY

Kurumbapalayam (Po), Coimbatore – 641 035

An Autonomous Institution

Accredited by NAAC – UGC with ‘A++’ Grade

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

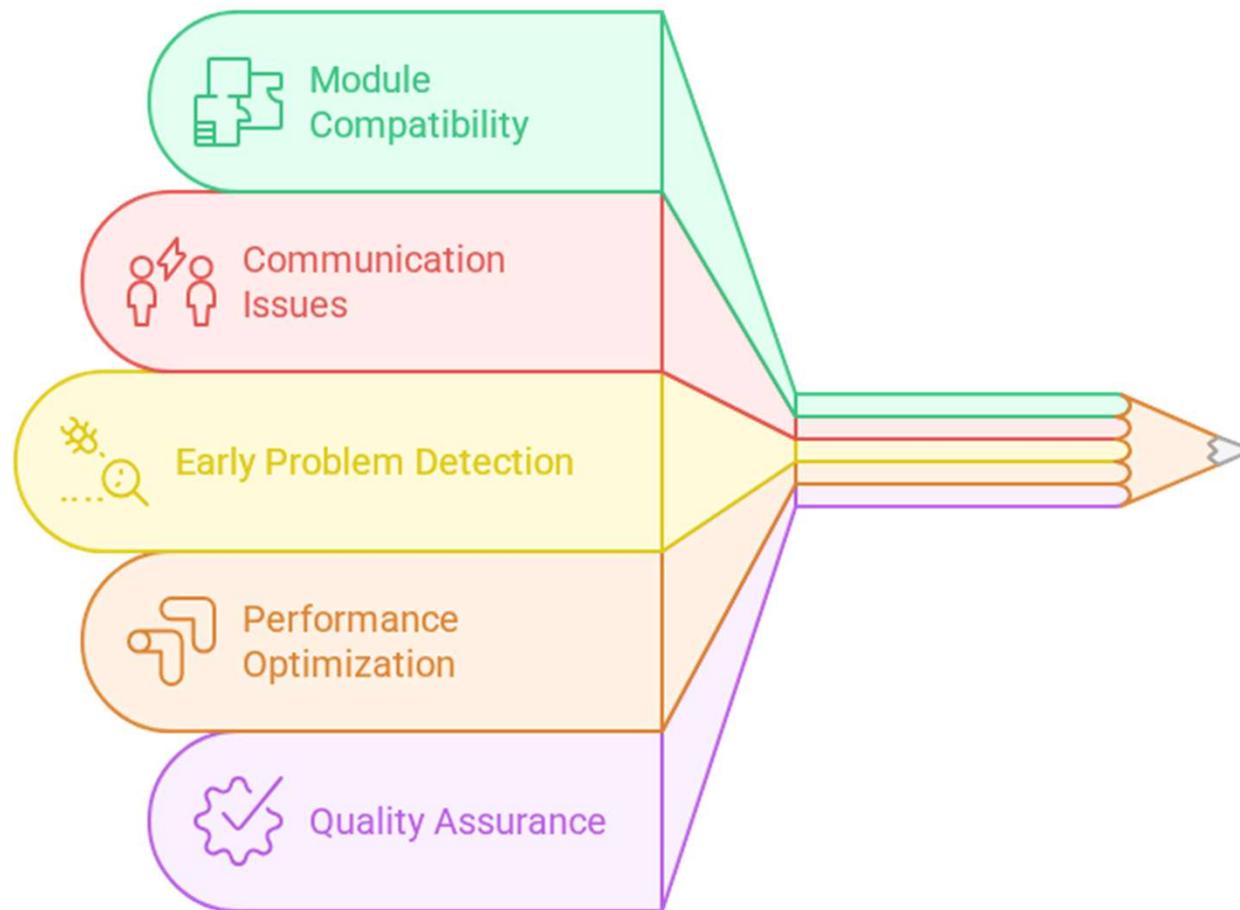
**COURSE NAME: 23ITO201- Software Testing
(OPEN ELECTIVE)**

III YEAR / VI SEMESTER

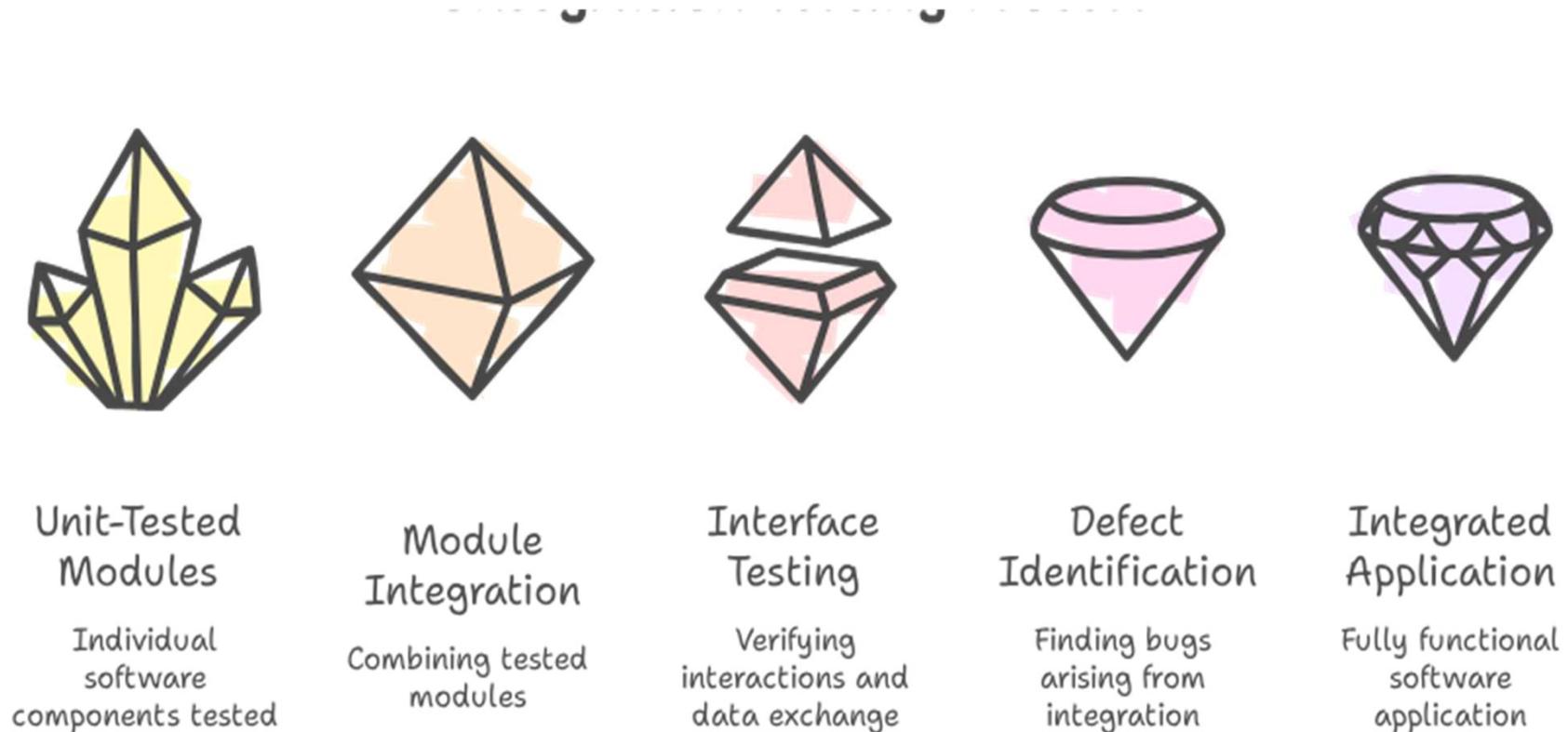
Unit 3 - LEVELS OF TESTING

Topic :Integrating testing

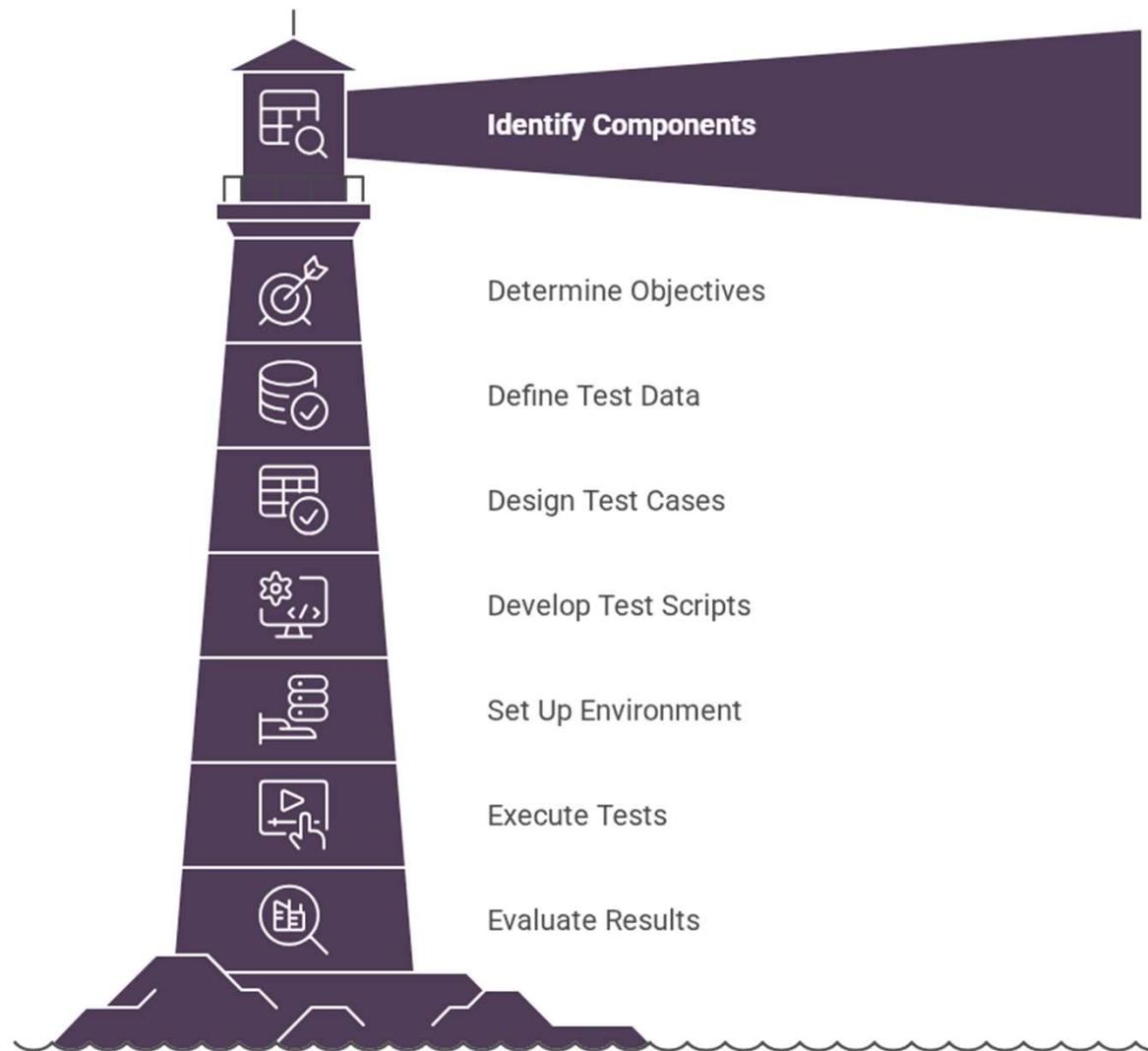
Empathy in Building a Robust Software System



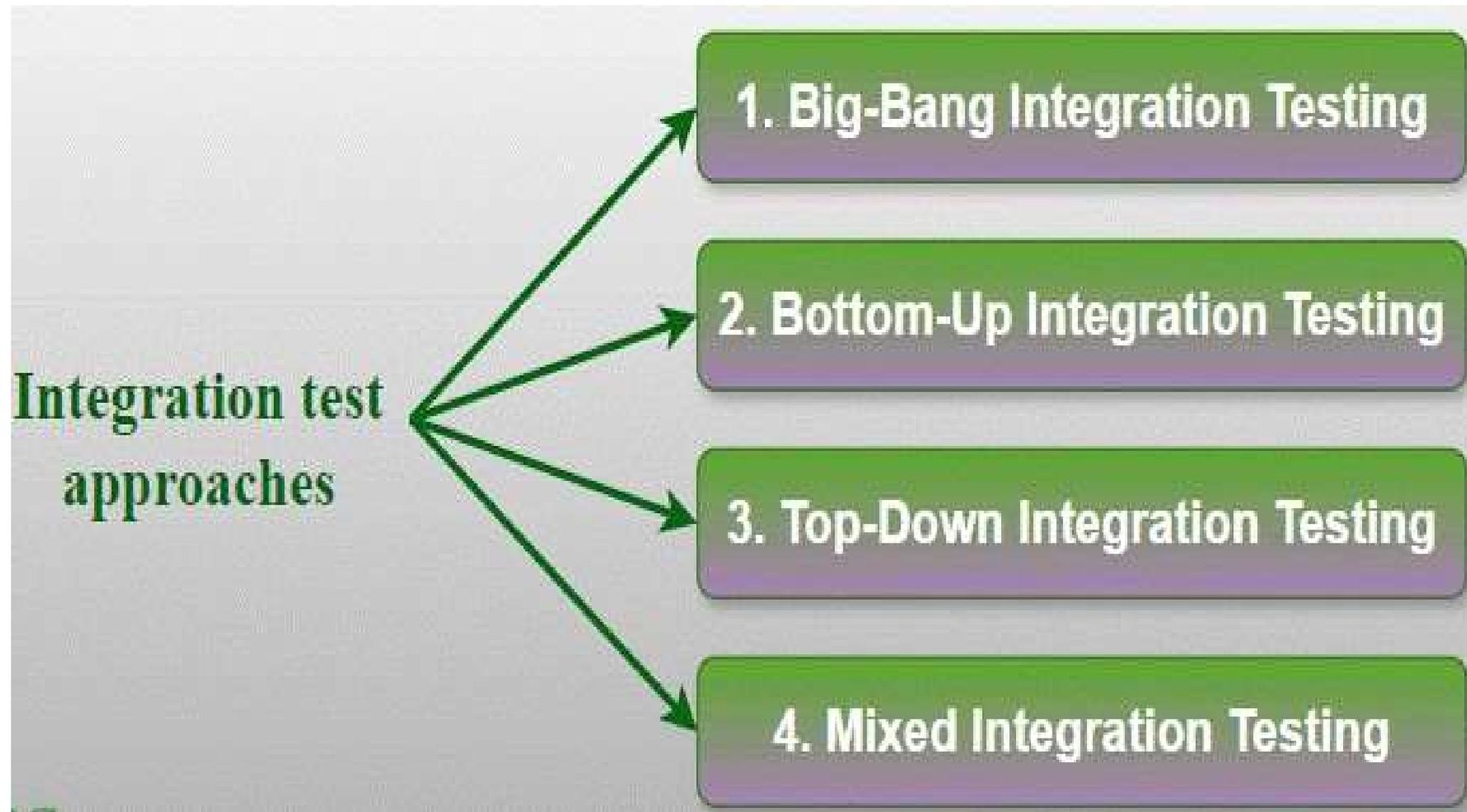
Integration Testing Process



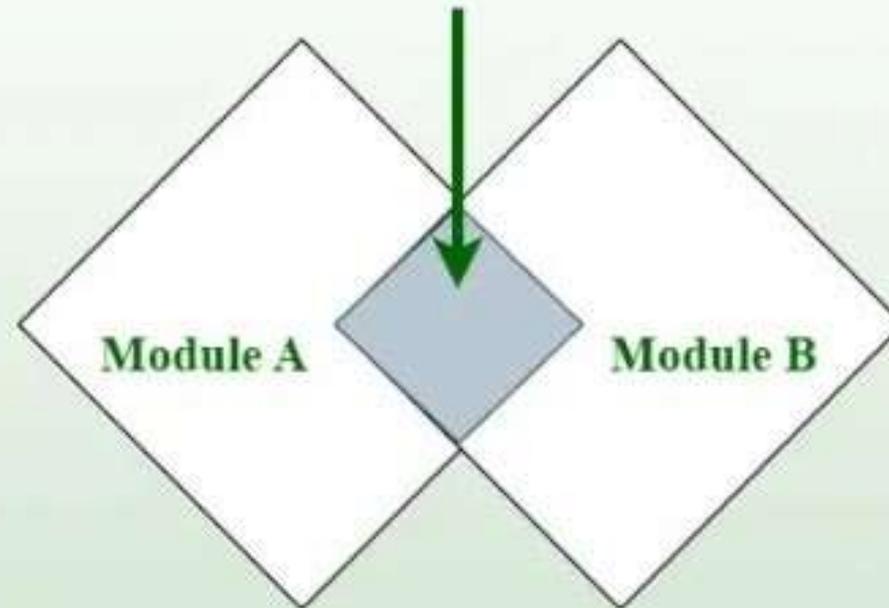
Designing Integration Tests



Types of Integration Tests

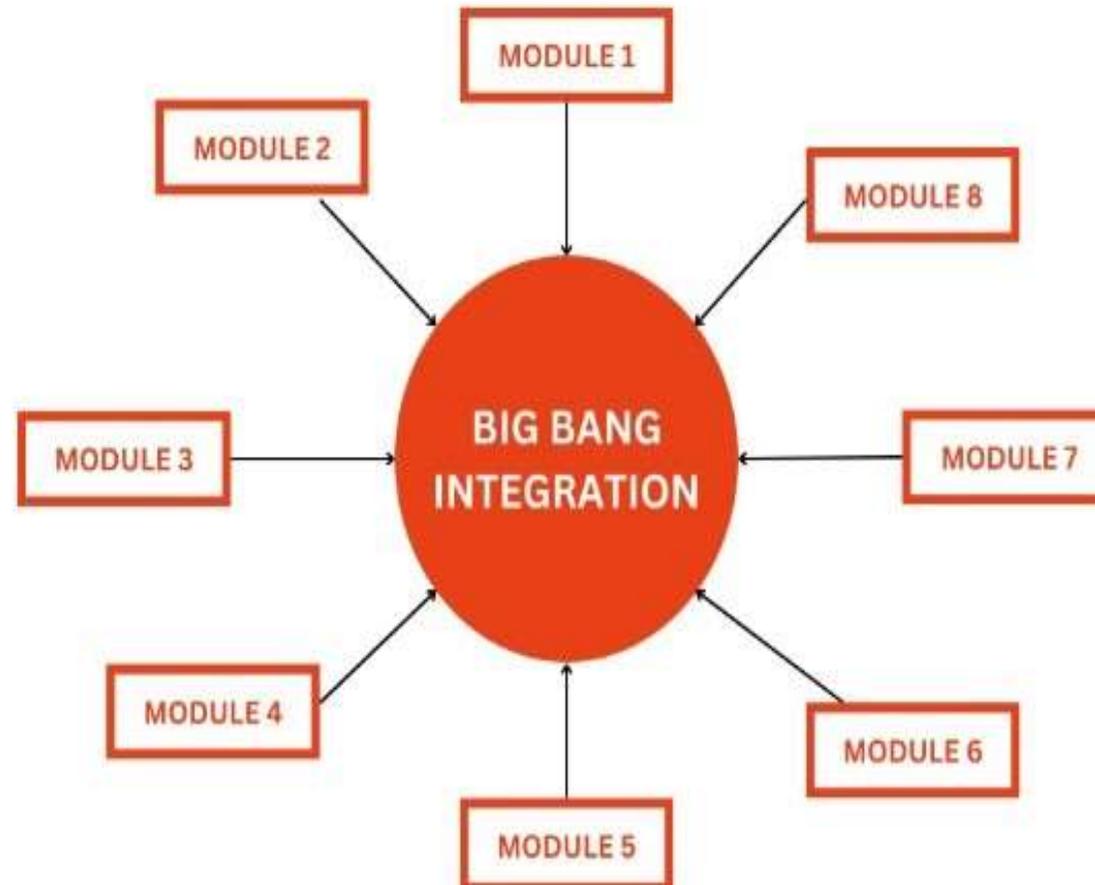


Integration Testing

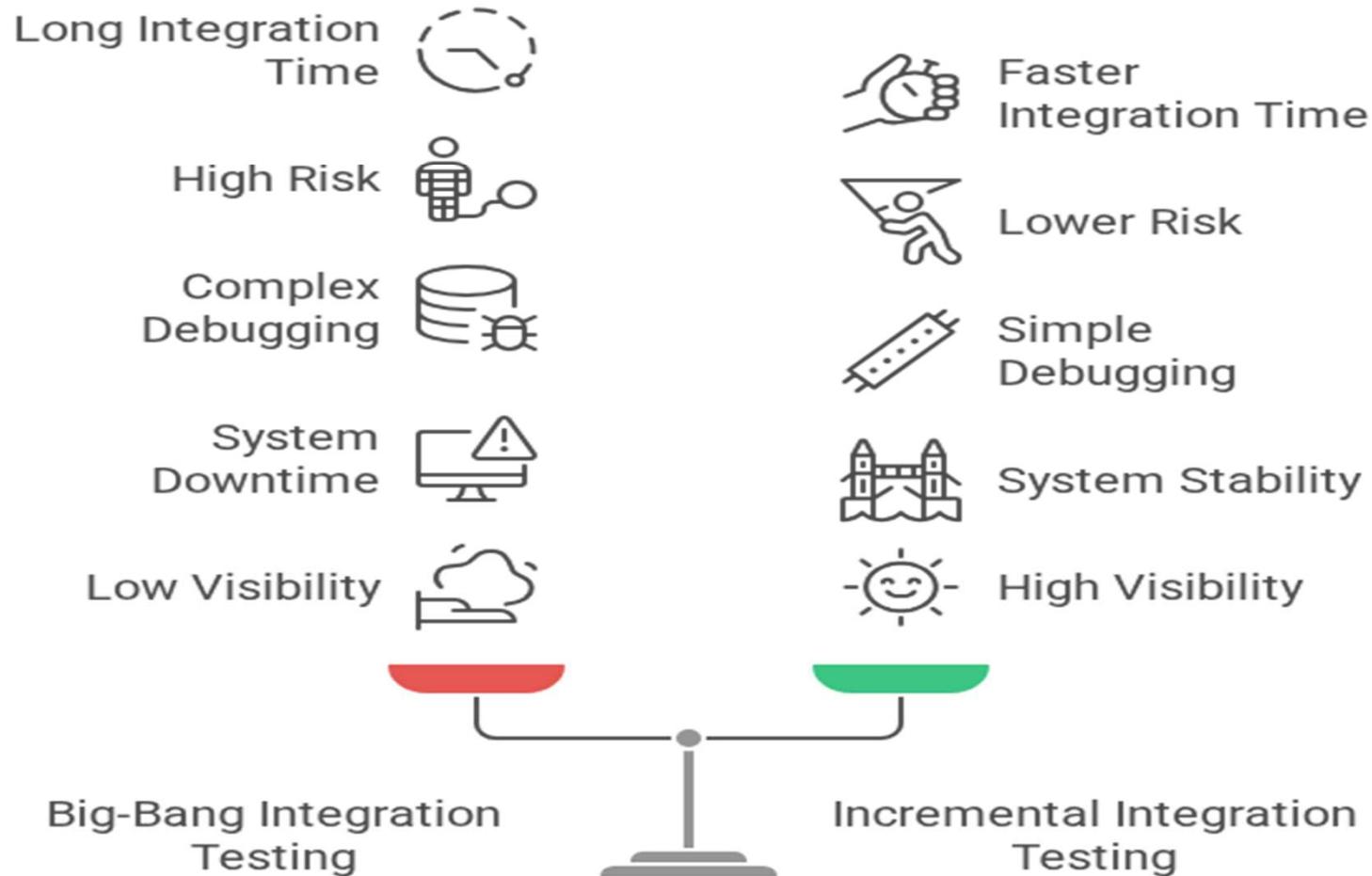


Big-Bang Integration Testing

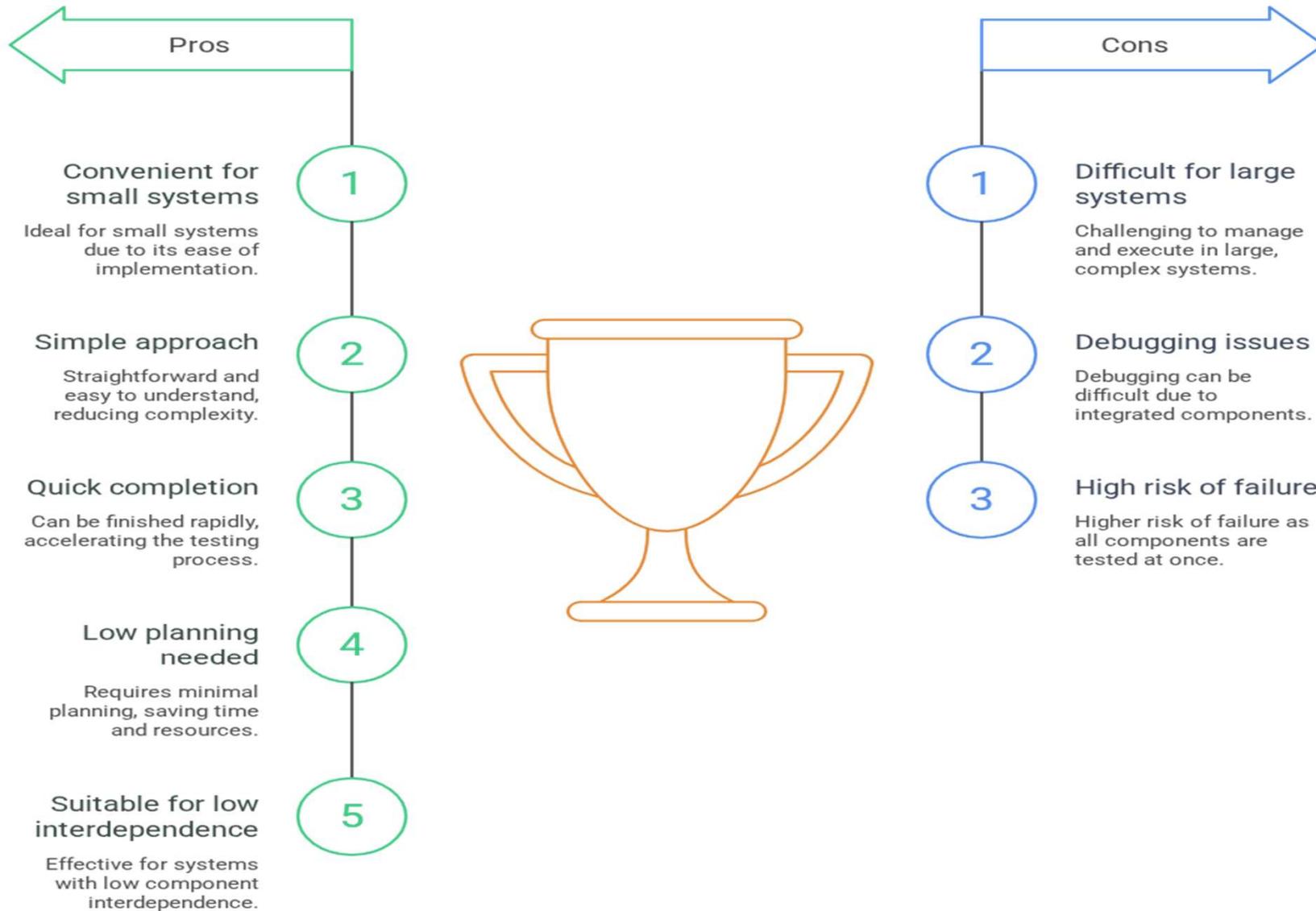
Big-bang integration testing is a software testing approach in which all components or modules of a software application are combined and tested at once.



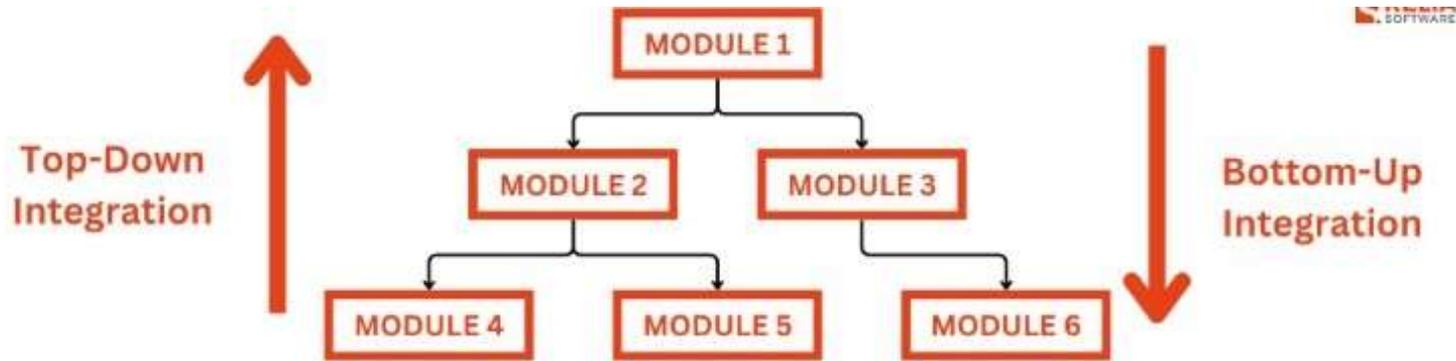
Compare Big-Bang and Incremental Integration Testing



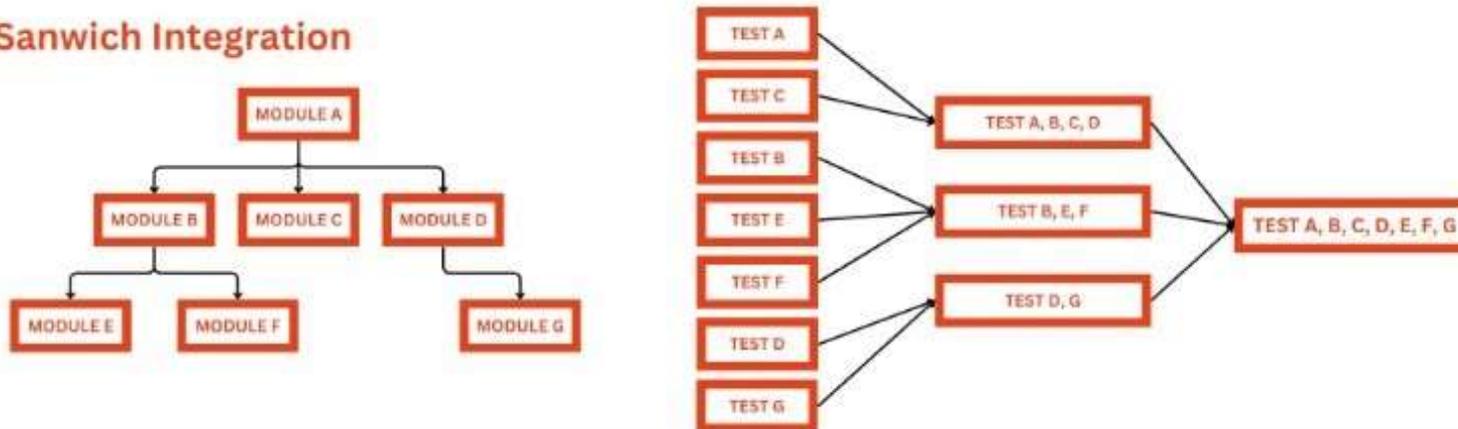
Big-Bang Integration Testing



Top-down, bottom-up, and sandwich Integration Testing



Sanwich Integration



Activity

Activity Title

Testing the Connection Between Modules

Scenario

A team is developing a simple **online shopping system**. The system has different modules such as:

- Login Module
- Product Selection Module
- Payment Module
- Order Confirmation Module

Each module works correctly when tested individually (**Unit Testing**). Now the team needs to test whether these modules work properly **when integrated together**.

Activity Task

Students will simulate **integration testing** by checking the interaction between modules.

Divide students into **four groups**, each representing one module:

Group 1: Login

Group 2: Product Selection

Group 3: Payment

Group 4: Order Confirmation

Each group prepares **simple inputs and outputs** for their module.

Now connect the modules in sequence:

Login → Product Selection → Payment → Order Confirmation

Test the system by passing data from one module to another.

Step	Module	Input	Expected Output
1	Login	Username & Password	User logged in
2	Product Selection	Choose product	Product added to cart
3	Payment	Payment details	Payment successful
4	Order Confirmation	Order ID	Order confirmed

MCQ

1. What is the main purpose of Integration Testing?

- A) To test individual modules
- B) To test the interaction between integrated modules
- C) To test the user interface
- D) To test system performance

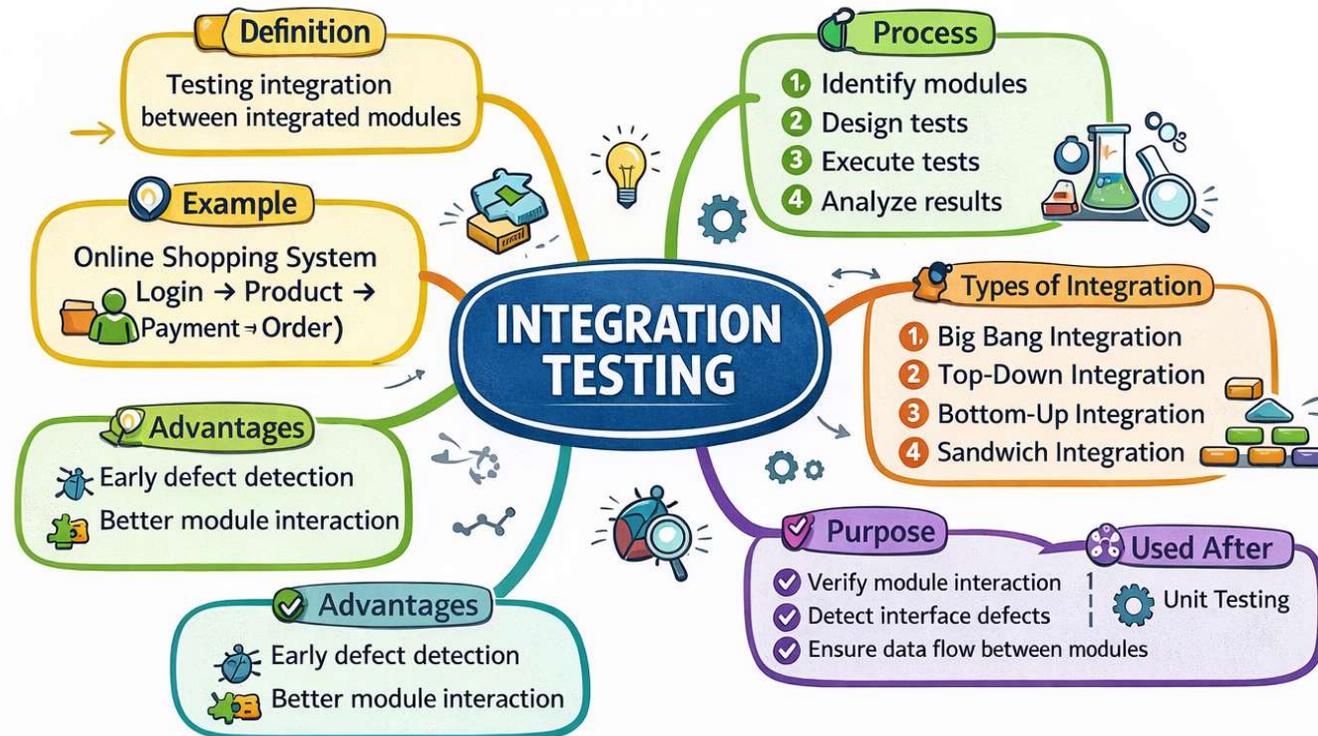
Answer: B) To test the interaction between integrated modules

2. Integration testing is performed after which testing phase?

- A) System Testing
- B) Unit Testing
- C) Acceptance Testing
- D) Performance Testing

Answer: B) Unit Testing

Mind Map



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

