1.Introduction to Testing Methodologies

(a)Unit Testing:

Unit testing focuses on testing individual components or functions in isolation. It's crucial for verifying that small parts of the code (like a single function or class) work as expected.

Tools: For Node.js, you can use testing libraries like Jest or Mocha.

Integration Testing:

Integration testing checks the interaction between different components or modules, ensuring they work together. This typically involves testing the combination of backend services like database queries, authentication, and routes.

Tools: You can use testing frameworks like Supertest along with Mocha/Chai to test API routes in Node.js.

Importance of Testing:

Testing ensures that your application is reliable and performs as expected, helping catch bugs early in development and preventing issues in production.