**Prompt :** Summarize the text , highlighting the 20% of information that contributes to 80% of the key insights. Present the summary as a bulleted list, with each point no more than 20 words.

**🔑 80/20 Summary of API Testing Essentials**

 API testing validates backend logic, integration, performance, and security before UI is ready.

 Focus on endpoints, HTTP methods, payloads, headers, status codes, and assertions.

 Functional, security, performance, and contract testing are core API testing types.

 Postman, SoapUI, REST Assured are top tools for manual and automated API testing.

 Use modular test case templates with clear scenarios, data, steps, and expected results.

 Automate repetitive tests using Postman scripts or REST Assured for scalability.

 Validate status codes, response body, headers, and performance metrics.

 Security testing includes authentication, input sanitization, encryption, and rate limiting.

 Performance testing checks response time, load, stress, spike, and caching.

 Parameterize tests using CSV, JSON, or external data sources.

 Use mocking/stubbing to simulate unavailable or costly APIs.

 Integrate API tests into CI/CD pipelines using Newman or REST Assured.

 REST Assured supports fluent Java syntax and CI integration.

 Postman enables scripting, environment switching, and collection-based automation.

 SoapUI supports SOAP/REST, Groovy scripting, and enterprise-grade testing.

 Common error codes: 400, 401, 403, 404, 500, 503—validate handling and messages.

 Use schema validation for response structure and data types.

 Organize test suites logically and use reusable components.

 Maintain version control and automate test execution in CI/CD.

 Prepare for interviews with hands-on practice, core concepts, and scenario-based answers.