Prompt - You are mentor, preparing a briefing for mentees, summarize the text focusing on key areas for QA member who want to learn API testing intermediate level for interview preparation. Present the Summary in 4 concise paragraphs.

**🎓 Mentor Briefing: API Testing – Intermediate Interview Prep for QA Professionals**

API testing is a critical skill for QA professionals, especially in modern architectures where APIs drive core functionality. At the intermediate level, testers must understand how to validate endpoints, HTTP methods (GET, POST, PUT, DELETE), headers, payloads, and status codes. Functional testing should cover positive, negative, and edge-case scenarios, ensuring the API behaves as expected across varied inputs. Security testing is equally vital—QA engineers must be able to test authentication (OAuth, JWT), authorization, input sanitization, and token expiry handling.

Performance and reliability are key interview topics. Candidates should know how to measure response time, simulate load and stress conditions, and validate caching behavior. Tools like JMeter and Postman Runner are commonly used for these tasks. Additionally, understanding error handling—especially interpreting and testing for 400, 401, 403, 404, 500, and 503 responses—is essential. Schema validation and response structure checks help ensure data integrity and consistency across environments.

Hands-on experience with tools is a major differentiator. Postman is widely used for manual and semi-automated testing, offering scripting, environment management, and integration with Newman for CI/CD. REST Assured is preferred for Java-based automation, enabling fluent syntax and robust validations. SoapUI supports both REST and SOAP APIs and is ideal for enterprise-grade testing with Groovy scripting and data-driven workflows. Interviewers often ask scenario-based questions that require practical tool knowledge and test design skills.

To prepare effectively, QA professionals should build reusable test templates, automate common flows, and practice real-world scenarios like login flows, CRUD operations, and role-based access control. Integrating API tests into CI/CD pipelines using tools like Jenkins or GitHub Actions demonstrates maturity in automation strategy. Finally, candidates should be ready to explain their approach clearly—highlighting test objectives, design, validations, and how they handle failures or edge cases. This blend of technical depth and communication is what sets standout candidates apart.