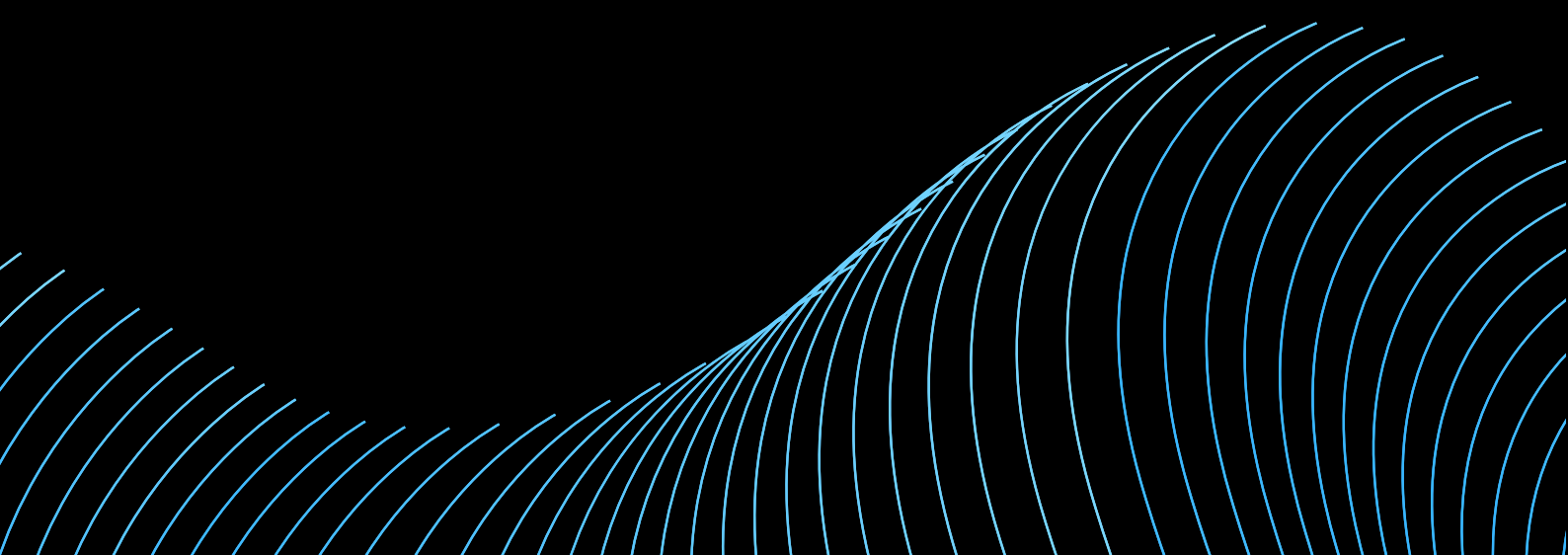


Checklist for Implementing Contract testing

A tailored approach to test your
microservices.





Fundamentals and Preparation



Introduction to Contract Testing:

- Define contract testing and its significance in microservices architecture.
- Example: Ensuring the reliability of interactions between a user service and a database service.



Identify Components for Contract Testing:

- Determine which microservices and interactions need contract testing.
- Example: Highlighting the communication between an order processing service and a payment gateway.



Develop a Contract Testing Strategy:

- Outline objectives, methodologies, and tools to be used for testing.
- Example: Choosing between consumer-driven and provider-driven approaches.



Set Standards for Contracts:

- Define the format and standards for contracts (e.g., JSON, XML).
- Example: Mandating a specific JSON structure for user data exchange.



Plan Your Testing Environment:

- Decide on the setup for conducting contract tests, whether in isolation or integrated environments.
- Example: Setting up isolated test environments that mimic real service interactions.



Execution and Maintenance



Write and Validate Contracts:

- Create clear and detailed contracts for each service interaction.
- Example: Defining contract terms for a shipping service API.



Implement Contract Tests:

- Guide on writing and automating contract tests.
- Example: Creating tests to validate the response of a product catalog service.



Integrate with CI/CD Pipelines:

- Automate the contract testing within the continuous integration and deployment process.
- Example: Running contract tests automatically on every code commit.



Monitor Contract Adherence:

- Regularly verify that all services adhere to the defined contracts.
- Example: Periodic checks to ensure that a customer service API maintains contract compliance.



Document Contracts and Tests:

- Maintain up-to-date documentation of contracts and test cases.
- Example: Keeping a log of changes in the authentication service contract.



Review and Update Regularly:

- Continuously assess and refine contracts and testing strategies.
- Example: Adjusting tests when new features are added to an inventory management service.



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