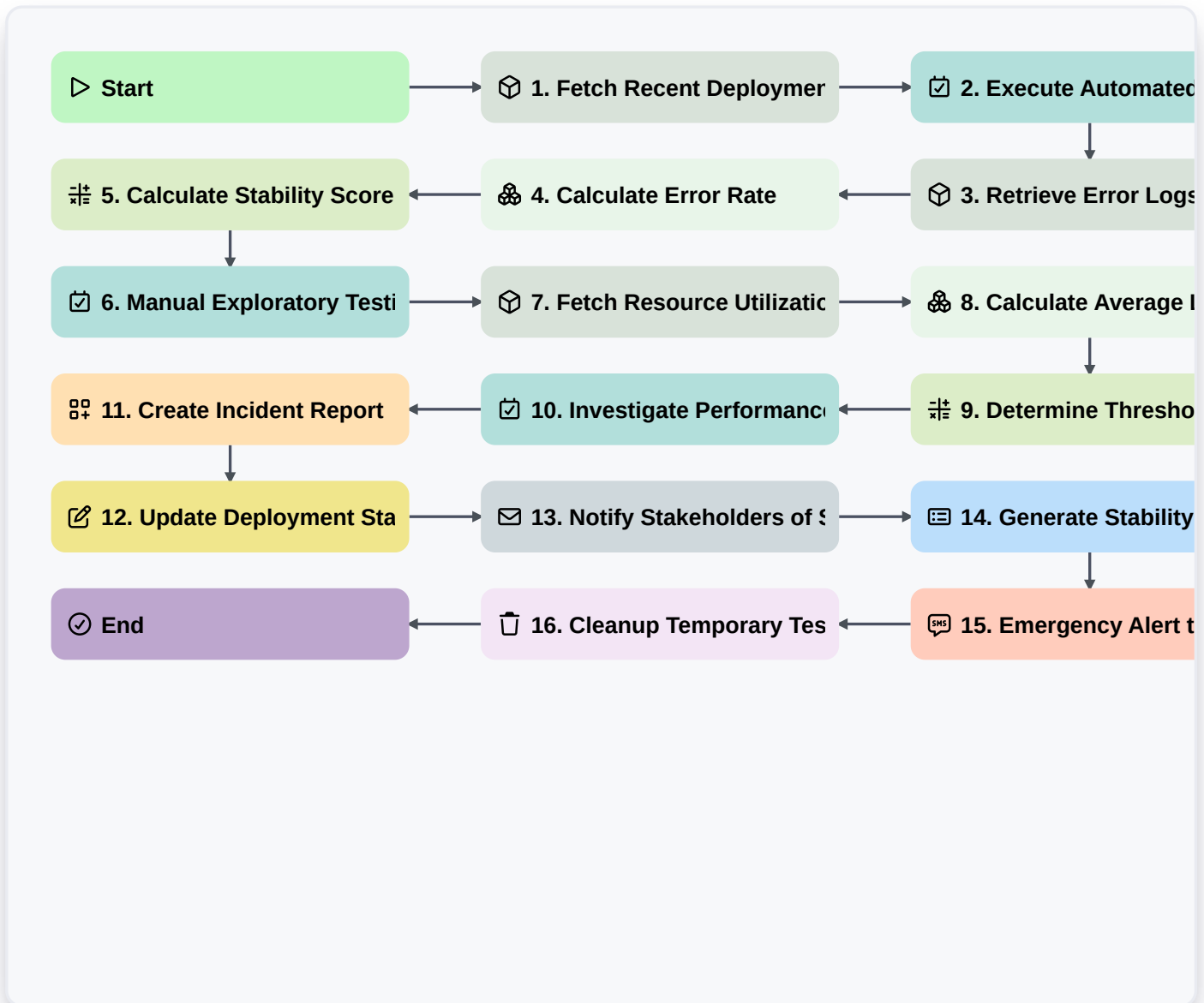


Product Stability Testing And Monitoring



▷ Start

Start of the Workflow/Process.

📦 1. Fetch Recent Deployment Records

Retrieve the latest deployment logs from the Deployment Data Model to identify the version being tested.

✅ 2. Execute Automated Regression Suite

Assign a task to the QA Engineer to run the predefined automated testing scripts.

📦 3. Retrieve Error Logs

Fetch error logs and crash reports from the System Logs Data Model for the current timeframe.

🔗 4. Calculate Error Rate

Aggregate error logs to calculate the percentage of failed requests against total requests.

🔗 5. Calculate Stability Score

Apply a formula using error rate, latency, and CPU usage to determine the overall Stability Score.

✅ 6. Manual Exploratory Testing

Create a task for the QA team to perform manual UI/UX stability checks on high-impact features.



7. Fetch Resource Utilization Metrics

Retrieve CPU, Memory, and Disk I/O data from the Infrastructure Monitoring Data Model.

8. Calculate Average Latency

Calculate the average response time from the captured performance metrics.

9. Determine Threshold Breach

Compare the calculated Stability Score and Latency against predefined SLA thresholds.

10. Investigate Performance Degradation

Create an investigation task for the DevOps Engineer if the stability score falls below the threshold.

11. Create Incident Report

Create a new entry in the Incident Data Model if a critical stability failure is detected.

12. Update Deployment Status

Update the status of the current deployment entry to 'Unstable' or 'Failed' based on test results.

13. Notify Stakeholders of Stability Alert

Send an email alert to the Product Manager and Engineering Lead containing the stability summary.

14. Generate Stability Summary Report

Create a comprehensive PDF/Dashboard report summarizing the results of the testing period.

15. Emergency Alert to On-Call Engineer

Send an SMS to the on-call engineer if a critical system crash is detected during testing.

16. Cleanup Temporary Test Data

Delete temporary test logs and transient data entries created during the testing cycle to save storage.

End

End of the Workflow/Process.