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CSD370

Module 9.2 Assignment

Test Data Generation

Secure Software Textbook

Description: Reuse of Production Data. To achieve realistic results, production data that has been anonymized can be reused as test data. This ensures that the data best represents the real-world use case and misuse case data.

When Used: In complex environments, using anonymized test data can yield the best results.

Tools: There aren't specific tools for production data; however, it requires a skilled team to process and anonymize production data for testing.

Source: Textbook

Geek for Geeks

Description: One of the methods for test generation discussed by Geeks for Geeks is manual test data generation. This is when test data is generated by hand.

When Used: This approach is beneficial when a tester needs precise control over edge-case values.

Tools: N/A

Source: <https://www.geeksforgeeks.org/approaches-for-test-data-generation-in-software-testing/>

Guru99

Description: One of the methods discussed by Guru99 is random and rule-based data generation. This is where tool create synthetic data based on predefined rules to mimic real world data.

When Used: This method works best when large amounts of realistic data is required for testing. For example, performance and scalability testing.

Tools: BlazeMeter, EMS Data Generator

Source: <https://www.guru99.com/test-data-generation-tools.html>

Lambda Test

Description: One of the methods for test generation discussed by Lambda Test is backend injection. This is when SQL queries are used to inject data directly into the database for testing. This is part of synthetic data generation often used with automated tools, like what is offered by Lambda test.

When Used: This approach is ideal when you require test data that closely mimics production conditions covering both use cases and misuse cases.

Tools: Lambda Test

Source: <https://www.lambdatest.com/learning-hub/test-data#g>