



SOLUTION SPOTLIGHT

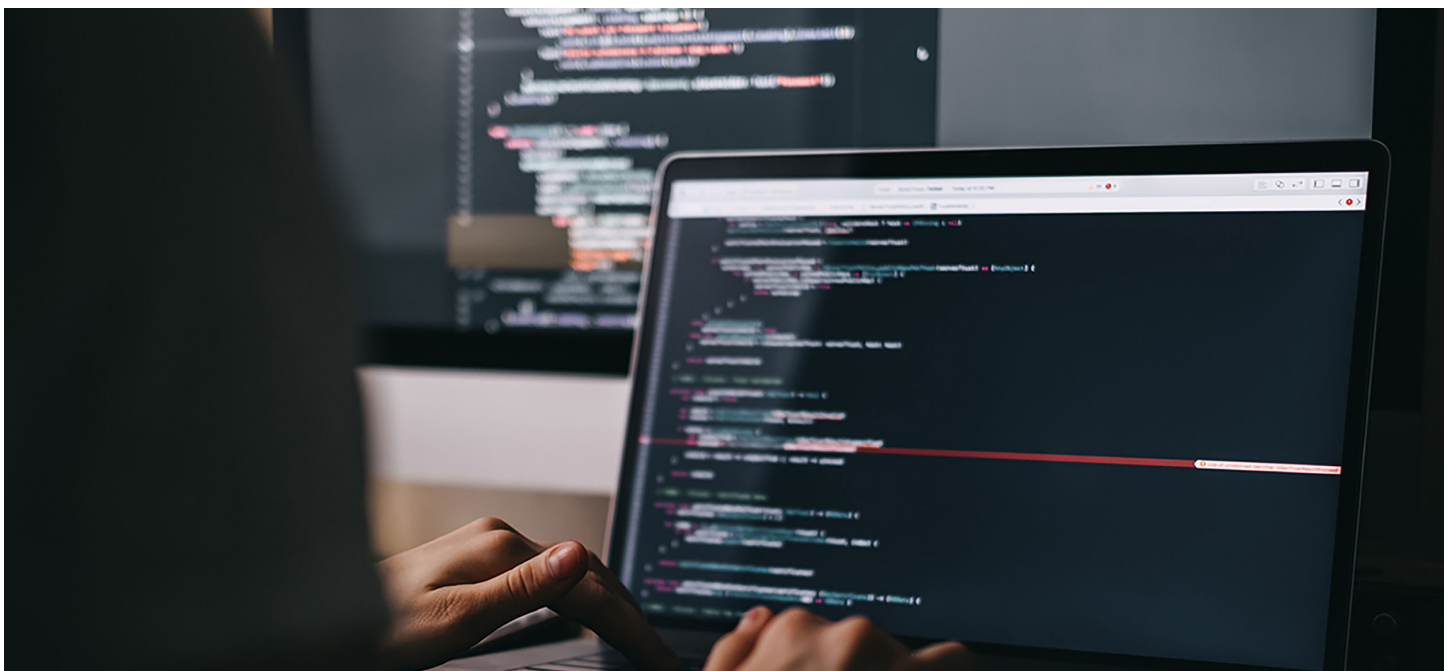
TEST DATA FOR LEGACY SYSTEMS

Background

A global payment processor faced the challenge of modernizing a legacy data platform that had been in use for over 20 years. The platform, a Daily Batch Data Collection and Settlement product, is responsible for reading files from various partners, processing them into a fixed file format, and storing them in a database. As part of the modernization effort, the platform is being upgraded to accept both fixed data formats and JSON, offering more flexibility and compatibility.

Problem Statement

The legacy data platform's reliance on fixed file formats made it challenging to generate synthetic test data for lower environments. The traditional approach involved manually scrubbing sensitive data from raw files, which was time-consuming, error-prone, and lacked scalability. Moreover, maintaining data consistency and integrity across various data segments within the platform posed a significant challenge.



GenRocket Solution

GenRocket emerged as a robust solution to address these challenges head-on. With its ability to generate synthetic test data efficiently while adhering to business logic and referential integrity requirements, GenRocket has proven invaluable in several key use cases:

1. Generating Test Data for Modernization

GenRocket's versatile platform generated test data in both fixed file and JSON formats, aligning perfectly with the modernization project's requirements. The tool automated the data generation process, reducing the time needed to create test data from several days to hours. This efficiency gain allowed the team to focus on other critical aspects of the project.

2. Testing and Troubleshooting with Historical Data

GenRocket's ability to generate historical test data has been a game-changer for the team. Users can easily go back in time and generate files for specific periods, such as last month, enabling them to replicate past scenarios and analyze system behavior. This functionality has proven invaluable for troubleshooting and testing, saving countless hours and resources.

3. Handling Large Data Volumes with Ease

With some files reaching sizes of two gigabytes and containing 100,000 to 200,000 records, the application dealt with substantial data volumes. GenRocket demonstrated its ability to efficiently generate these large datasets, facilitating comprehensive testing without compromising performance.

4. Ensuring Referential Integrity Across Complex Data Structures

Maintaining referential integrity between data segments across multiple domains and files was a complex challenge. GenRocket's ability to model these intricate relationships and generate data that adheres to the required constraints has been a significant achievement. The tool ensured that all generated data maintained accurate data relationships, a critical aspect of the platform's functionality.

Implementation Process

- 1. Project Specification:** The team outlined the project's specifications and requirements, providing a clear roadmap for the implementation.
- 2. Design and Modeling:** The data model was accurately designed and modeled by importing metadata from the target data environment into the GenRocket platform, allowing for precise control over data generation.
- 3. Fixed File Generation:** GenRocket was used to generate synthetic data in the fixed file format, aligning with the legacy platform's requirements and providing a seamless transition to the modernization project.
- 4. JSON File Conversion:** As part of the modernization effort, GenRocket was utilized to generate the same data in a consolidated JSON format, ensuring data compatibility and marking a significant milestone in the project.

Benefits and Achievements

- Successfully implemented GenRocket for generating test data in fixed and JSON formats, streamlining the modernization process.
- Reduced test data generation time from days to hours, resulting in significant efficiency gains.
- Enabled efficient troubleshooting and testing through historical data generation, saving time and resources.
- Demonstrated scalability by generating large data volumes (up to 300,000 transactions) in less than an hour.
- Maintained referential integrity for complex data relationships across multiple domains and files.
- Seamlessly modernized its legacy application with the help of GenRocket's flexible output formatting capabilities.

Conclusion

GenRocket has played a pivotal role in modernizing the legacy data platform for this global payment processor. By providing an efficient, flexible, and scalable test data generation solution, GenRocket has empowered the team to overcome complex challenges, meet project specifications, and ensure data consistency and integrity.

The successful implementation of GenRocket has not only streamlined the modernization process but also laid the foundation for future enhancements and expansions. As the organization continues to evolve its data platform, GenRocket's innovative capabilities will remain a key enabler of success.

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