

Development of Hadoop Test Automation Framework for a Fortune 500 US Retailer



The Customer

Having presence in 45 states and operations around 900 stores, our customer is regarded as one of the premier retailers in US. With almost 166,900 employees, its annual revenue stands at around \$28 billion.

The Challenges

Our customer experienced a multi-fold growth and increase in revenue in online sales with their recent focus on Omnichannel initiatives. They were determined in seeking to improve their customer experience using various Omnichannel growth strategies across different platforms.

However, they had a business case wherein, data was frequently being migrated from an SQL to a NoSQL database. During this process, there were facing numerous hurdles:

- It was getting cumbersome for the manual testers to validate the migration in a timely manner
- Managing frequent releases was monotonous
- Validating the larger Developer Base which is of almost 800+ developers
Performing larger requirements in a short span of time
- Increased testing life-cycle

The Solution

- Aspire built an automation framework using Ruby-Cucumber to validate the migration exercise
- Based on the discussion with end users, certain criteria's were defined and were built into the test automation framework
- The Hadoop Automation eased the process of handling data for the client

Aspire did a validation support which includes Count Validation and Data Validation

Count Validation

Ensuring data load happens properly without loss of any data by comparing the record count between the Hive and SQL tables.

Data Validation

Loaded data is proper without any truncation in data by verifying data between Hive and SQL tables.

Technology Snapshot

- Ruby-Cucumber
- Hive
- Oracle
- YML
- Jenkins

Benefits

With the help of Hadoop Test Automation, we were able to achieve the following:

- Reduced Testing effort by 75%
- Automated about 200 Test Cases
- Enhanced the Test Coverage
- Achieved a direct positive impact in terms of FTE hours saved on a regular basis
- The automation increased the accuracy of the validations, especially in unearthing 'false positives'
- Aspire laid a solid foundation for further validation rules to be built into the framework



ABOUT
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