WHITE-PAPER

Power BI Dashboard testing automation for a drilldown feature with parameterization

THE PROBLEM

How can users automate testing of PowerBI Dashboard drilldown?

This solution answers this, and shows how multiple iterations are possible with different sets of external data.

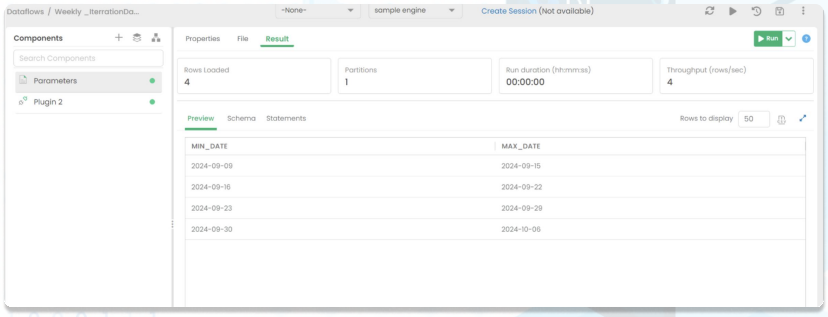
APPROACH

Sample data parameters can be saved in a flat file:

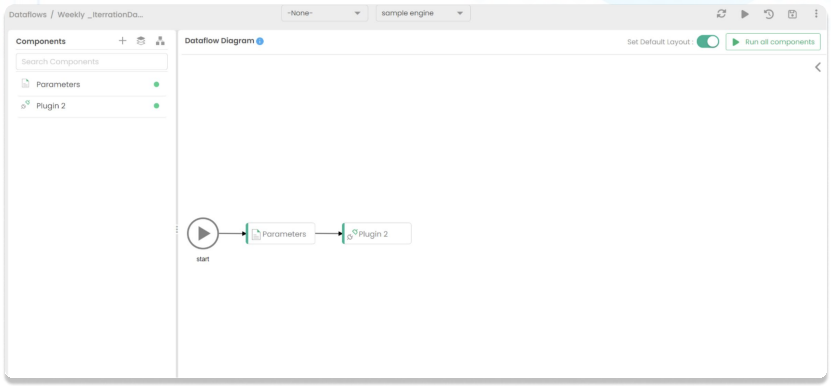
MIN_DATE,MAX_DATE
2024-09-09, 2024-09-15
2024-09-16, 2024-09-22
2024-09-23, 2024-09-29
2024-09-30, 2024-10-06

Year,Month
2024, 8
2024, 9
2024, 10
2024, 11

Use DataGaps v2024.4.0.1 , import the sample data. Sample data parameters reflects in DataGaps.



Create a DataFlow connecting to PowerBi dataset. This is how actual Dataflow looks using Parameters:



About Bloom Value

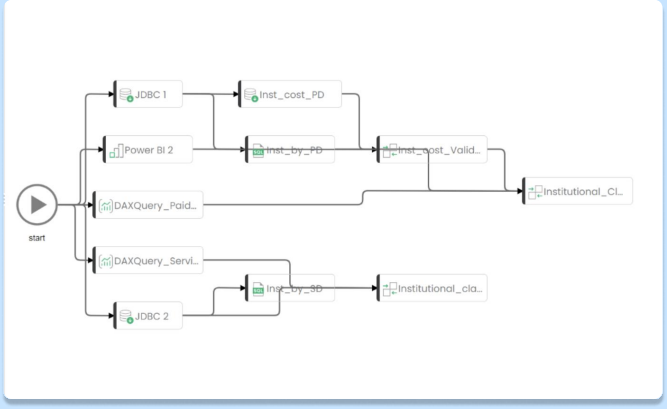
Bloom Value is an AI/ML healthcare technology company that is focused on helping organizations' improve their financial and operational performance. With our FAST platform, Bloom value delivers advanced, cutting-edge augmented intelligence where AI insights are paired with healthcare expertise. This results in better, faster decision making, profitability and cost reduction across the organization. Bloom Value's solutions service all types of healthcare organizations: RBOs (IPAs, MSOs, ACOs), Health Systems and other Value Based entities looking to improve margins and efficiency.

Our QA Approach

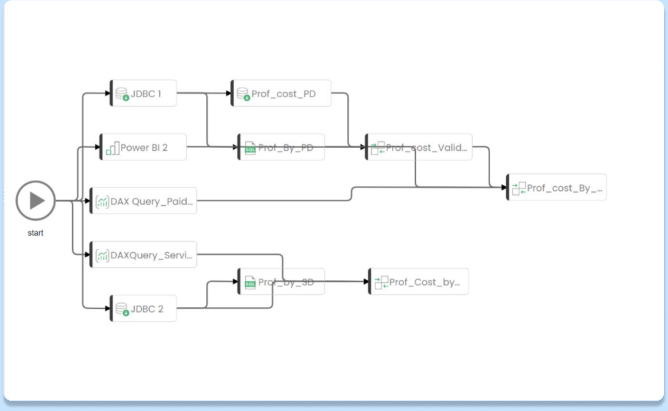
Our QA approach focuses on the automation of data verification and collection to minimize tedious effort and the possibilities of mistakes.

- Reduce manual effort: Automation of Data Testing activities like data retrieval & comparing data.
- Data Quality: Check Points in different stages of testing.
- Improve accuracy: Decrease errors by automating data validation and maintaining consistency.
- Enhance efficiency: Speed up the testing process and analysis of test results.
- Ensure compliance: Maintain compliance with regulatory agencies through automated data validation and data verification.

Dataflow (weekly):



Dataflow (monthly) using Parameters:



Below is the pipeline in which dataflow is scheduled based on weekly iteration parameterizations.

Through this, manual efforts have been greatly reduced & has validated multiple sets of data.

References

www.bloomvalue.com

https://www.datagaps.com/bi-validator/

DAX Query (datagaps.com)

DataGap help page

Time-out issue while retrieving high volume of data in test automation using DataGaps

PowerBi DAX Query usage for retrieving hierarchical data

Addressing data gaps/Issues

Issues in data often arise from manual data validation, weak testing techniques, and tool constraints. Bloom and DataGaps tackle these issues by:

- Automating data validation: Reducing the possibility of human mistakes and the quality of data.
- Efficiently managing large data sets: DAX Query, Power BI, all the complex data without performance hit.
- Offering flexible data retrieval: Allowing users to extract data based on specific criteria (e.g., weekly or monthly).

DataGaps Capabilities

It offers many tools to combat data issues:

- Integration with Bloom: Integrates smoothly with Bloom to take advantage of its powerful data automation capabilities.
- DAX Query integration: Facilitates efficient data retrieval and manipulation through DAX queries.
- Power BI compatibility: Allows for easy integration with Power BI for better data visualization and reporting.
- Hierarchical data extraction: This form makes it easier to read and analyze the data because it is structured.
- Customized retrieval parameters: Users can specify what data they want to pull, like a summary by week or month.

Key Benefits

- Improved efficiency: Greatly reduce time spent on data retrieval and validation, so teams have more time to focus on strategic endeavours.
- Enhanced accuracy: Reduce errors and maintain data integrity through automation.
- Better decision-making: Get the correct and most current information in order to make a decision.