

R & D

Growing Every time

#Integration Testing [Automation]





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Open source tools for Automation

Plugin Jmeter

Integration Level

Whitebox Level

CardLink

Service

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Open source tools JMeter for automation

Pros

- ▶ Open source
- ▶ Functional & Non Functional
- ▶ Automatic Report



Plugin Jmeter

3 Basic Graphs

Plugin Jmeter

3 Basic **Graphs**

Remote Terminal Emulation (RTE) Plugin

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JSON Extractor & Assertion, Boundary
Extractor

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JMETER **JDBC** Support

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JMETER **JDBC** Support

jmeter - **HTTP** Protocol Support

Plugin Jmeter

3 Basic **Graphs**

Remote Terminal Emulation (RTE) Plugin

JSON Extractor & Assertion, Boundary

Extractor

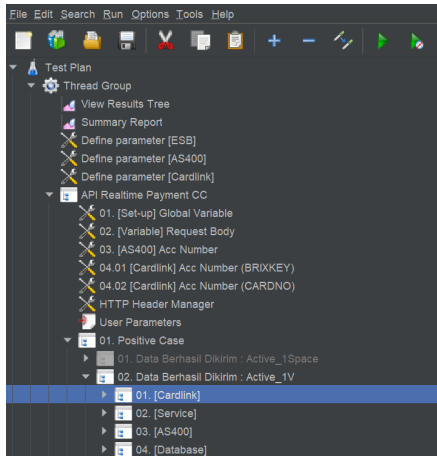
JMETER **JDBC** Support

jmeter - **HTTP** Protocol Support

ISO-8583 Sampler

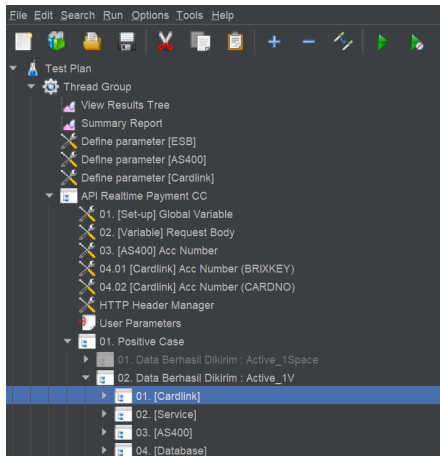
Test Design in Whitebox Level

Plan Scenario Test



Main Structure plan scenario

Test Design in Whitebox Level



Main Structure plan scenario

Plan Scenario Test

*Config & Initialization

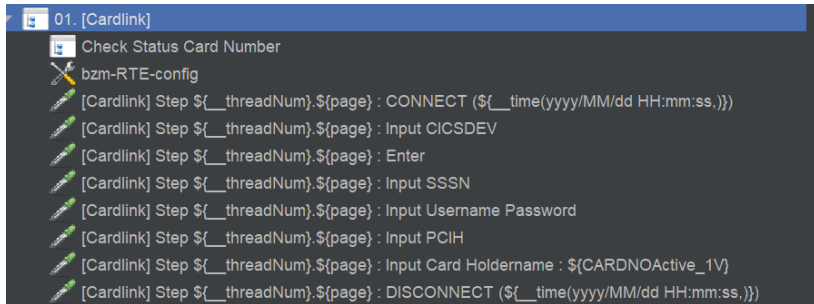
▶ Fragment

▶ Positive Case

- ▶ Card link
- ▶ Service
- ▶ AS400
- ▶ Database

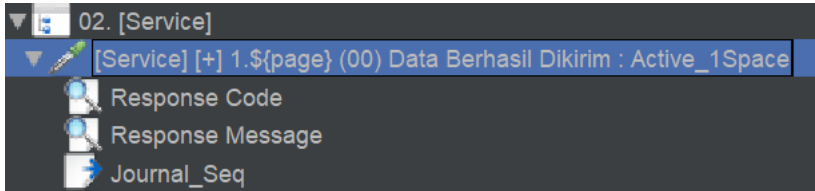
▶ Negative Case

▶ Abnormal Case



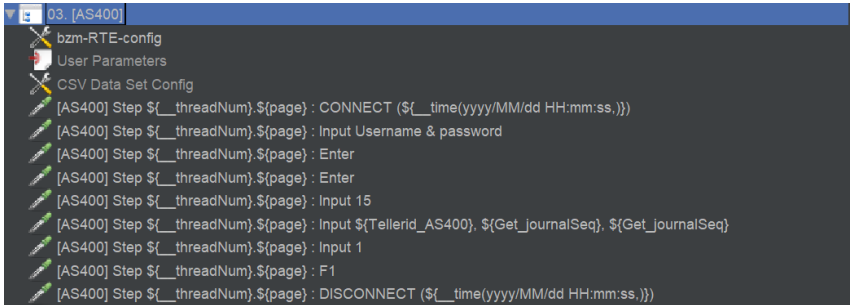
Plan scenario check status card number in Cardlink

This is used to make it easier at the technical level



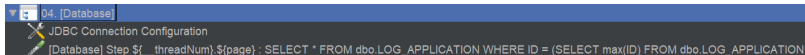
Plan scenario Hit Service Payment CC

This is used to make it easier at the technical level



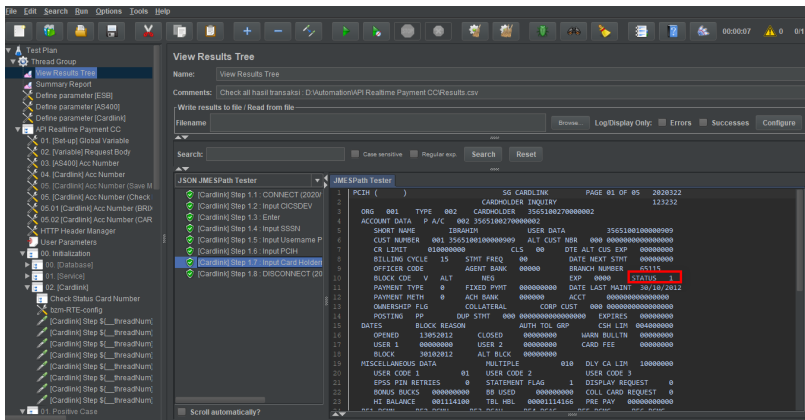
Plan scenario how to check Status Transaction in AS400

This is used to make it easier at the technical level



Plan scenario check Status Transaction in Database

This is used to make it easier at the technical level



Status Card number is Active

Hit Service

The screenshot displays the JMeter interface with the 'View Results Tree' window open. The left sidebar shows a test plan structure for 'API Realtime Payment C'. The main panel lists test steps, with the final step, '[AS400] Step 1.18: DISCONNECT (2020/11/17 12:27:46)', highlighted. The right pane shows the response data for the selected step, indicating a successful transaction with a 'RESPONSE_CODE' of '00' and a 'REFERENCE_ID' of '778053635727400'.

View Results Tree

Name: View Results Tree

Comments: Check all hasil transaksi : D:\Automation\API Realtime Payment C\Results.csv

Write results to file / Read from file

Filename: Browse Log/Display Only: ☐ Errors ☒ Successes ☐ Configure

Search: Case sensitive ☐ Regular exp. Search Reset

JSON JMSPath Tester

- [Cardlink] Step 1.1: CONNECT (2020/11/17 12:27:27)
- [Cardlink] Step 1.2: Input CICSDEV
- [Cardlink] Step 1.3: Enter
- [Cardlink] Step 1.4: Input SSN
- [Cardlink] Step 1.5: Input Username Password
- [Cardlink] Step 1.6: Input PCN
- [Cardlink] Step 1.7: Input Card Holdname : 35651002000
- [Cardlink] Step 1.8: DISCONNECT (2020/11/17 12:27:34)
- [Review] [-] 1.9 (00) Data Berhasil Daprom / Active _20space**
- [AS400] Step 1.10: CONNECT (2020/11/17 12:27:35)
- [AS400] Step 1.11: Input Username & password
- [AS400] Step 1.12: Enter
- [AS400] Step 1.13: Enter
- [AS400] Step 1.14: Input 15
- [AS400] Step 1.15: Input 0888891, 7092537, 7092537
- [AS400] Step 1.16: Input 1
- [AS400] Step 1.17: F1
- [AS400] Step 1.18: DISCONNECT (2020/11/17 12:27:46)

☐ Scroll automatically?

JMSPath Tester

```
1 {
2   "RESPONSE": {
3     "RESPONSE_CODE": "00",
4     "REFERENCE_ID": "778053635727400",
5     "RESPONSE_MESSAGE": "Transaksi Anda Sukses",
6     "REMARK": "PAYMENT_KKCB_778053635727400_0001279",
7     "BILL_AMOUNT": "2",
8     "ERROR_CODE": "CL-000"
9   }
10 }
```

Transaction Successfully

Check Status in Brinets

The screenshot displays the JMeter GUI. On the left, the 'Test Plan' tree is visible, showing a sequence of steps including 'API Realtime Payment C', 'User Parameters', 'Initialization', 'Database', 'Service', 'Cardlink', and 'Check Status Card'. The 'Test Results Tree' is expanded, showing a list of steps with their execution status (green checkmarks for success, red X for failure). The 'JMeterPath Tester' window is open, displaying the 'Teller LOG File Display' for the 'BANK RAKYAT INDONESIA' at 12:27:47. The log shows a successful transaction for '8541 SATM BRI PAYMENT NW' with a status of 'N' (Normal) and a transaction code of '7092537'.

Test Results Tree

Names: View Results Tree

Comments: Check all hasil transaksi : D:\Automation\API Realtime Payment C\Results.csv

Write results to file / Read from file

Filename: Browse... Log/Display Only: Errors Successes Configure

Search: Case sensitive Regular exp. Search Reset

JMeterPath Tester

17/11/20 12:27:47

BANK RAKYAT INDONESIA

Teller Log File Display

Teller: 0088891

Type option, press Enter 1=Display

Trn	Time	Seq	Cor	OK	Pwd	Ovr	Sup
Opt Cde Description	In	Out					
8541 SATM BRI PAYMENT NW	12:27:38	12:27:38	7092537	N	Y	N	N

F3=Exit F12=Previous

Teller LOG File Display

Detail : Check Correction, Trancode, Description etc

Check Status in Brinets

The screenshot shows the JMeter GUI with the 'View Results Tree' tab selected. The left sidebar shows a test plan with a thread group containing a summary report and a series of cardlink steps. The main panel displays the results for the 'JMSPath Tester' step, which is a 'CONNECT (2020/11/17 12:27:27)'.

View Results Tree

Name: View Results Tree

Comments: Check all hasil transaksi : D:\Automation\API Realtime Payment CO\Results.csv

Write results to file / Read from file

Filename: Browse... Log/Display Only: ☐ Errors ☐ Successes ☐ Configure

Search: Case sensitive ☐ Regular exp. ☐ Search Reset

JMSPath Tester

Cr App	Account No	Short Name/Desc	Curr	Amount	Gen From
CR GL 000004017501001	Pdd-Kuntungan(Kruglan)	Reva	IDR	1.00	PARA
DR DO 020601000005569	YAMA SOEPRIANAN	IDR	1.00	PARA	
DR DO 020601000005569	YAMA SOEPRIANAN	IDR	1.00	PARA	
CR DO 039101000299993	TTP FEE TRANS PYTR PR	IDR	1.00	PARA	

F3=Exit F12=Previous

Teller LOG File Display

Detail : transaction, Debit, Credit, Tellerid, Journalseq, Amount

Check Status in Brinets

The screenshot displays the JMeter GUI with the following components:

- Test Plan:** A tree view on the left showing the test structure, including 'API Realtime Payment C' and 'Check Status Card f'.
- View Results Tree:** A panel on the right showing the test results. It includes a 'Name' field, 'Comments', and a 'Write results to file / Read from file' section.
- JME SPath Tester:** A panel on the right showing the test results for the 'JME SPath Tester' plugin. It displays a 'Bucket Assignment' table with columns for 'Single field #', 'Value', and 'Single field #'. The table contains data for fields #1 through #20, with values ranging from 0 to 171120.

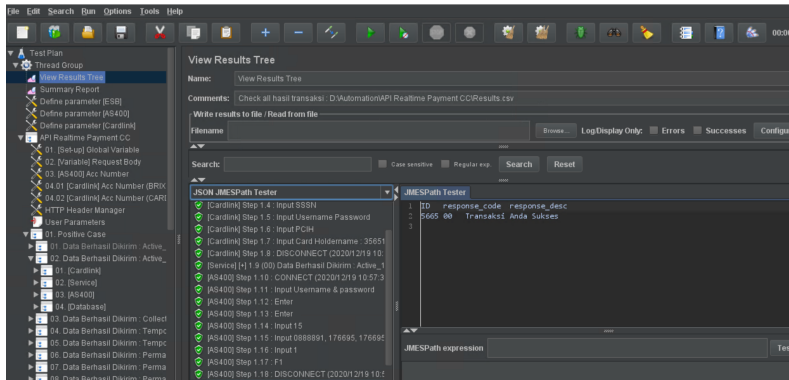
The 'Bucket Assignment' table data is as follows:

Single field #	Value	Single field #	Value
1	20601000005569	11	
2		12	
3	100	13	
4		14	
5	39101000299993	15	
6	100	16	
7		17	
8		18	
9		19	171120
10	100	20	

Teller LOG File Display

Detail : Remarks, detail in Bucket level

Check Status Transaction in Database



The screenshot shows the JMeter GUI with the 'View Results Tree' window open. The left sidebar displays a test plan structure with a thread group containing a 'JSON JMESPath Tester' step. The main window shows the results of the 'JSON JMESPath Tester' step, displaying a table with 3 rows of data. The first row is the header: ID, response_code, response_desc. The second row is: 5665, 00, Transaksi Anda Sukses. The third row is empty. The 'JSON JMESPath Tester' step is highlighted in the left sidebar.

ID	response_code	response_desc
5665	00	Transaksi Anda Sukses

Check Status Transaction

Detail : Last transaction based on ID index

Test Design in Black Box Level

Test Requirement based on bussines Level :

- ▶ Bussines Level should be define in frond end Level
- ▶ Collaboration is key how to integrate everything, but don't miss.

Challenge Software Testing

- ▶ Integration on apps Level (Front end : UI/Apps/other)
 - ▶ Selenium (Python)
 - ▶ Appium (python)

Challenge QA OPS

- ▶ Run automation : DEV + TEST (UT/UIT/ITG), SECURITY, TEST(UAT), DEPLOYMENT
- ▶ Continuous Delivery Director: Test Orchestration



... Thank you 2020, stay safe and healthy !!!

See you next time, do the best for everything, keep spirit and to The Next Level.