TEST RESULT REPORT

Project
«Sales operations DWH»

Content

1. GENERAL INFORMATION

Background: Main purpose of DWH project – gather data from S1 and S2 source systems, union it with some business rules in DWH layer and then create DM table which will be used by customer for reporting. Information about the testing process of thesa sets of data is needed to assess the effectiveness of the testing process and the current state of the project.

Purpose: To provide the key information about the testing process and testing results.

Scope: Testing process description, test results, metrics, timetable, recommendations.

Audience: Management staff, QA team, project team

File: Test_Result_ Report.docx

Notes: Some of the data in the report is synthetic and used as examples only.

Terms: Hereinafter, the current project is called "DWH testing".

2. SUMMARY

The Data Warehouse Testing was conducted to evaluate the accuracy and completeness of the data loaded and stored in the data warehouse. The test was run during 5-8 of May 2023, using manual testing techniques.

The data warehouse was found to be functioning well overall, with most of the data accurately and completely represented. However, some inconsistencies and errors were identified in the data, including duplicates and incorrect values.

3. TEST TEAM

Name	Role	Responsibility
Oksana Krangach	Data Quality Engineer	Documentation creation, test-cases creation and execution
Valentin Tarasov	Senior Data Quality Engineer	Participation in requirements testing and results review

4. TESTING PROCESS DESCRIPTION

The DWH testing was performed under Linux Ubuntu 22.04.2 LTS x86_64, using PostgreSQL 15.2, dbeaver Version 23.0.1.202303241844 Community Edition.

The testing process for the DWH Testing involved the following steps:

1) testing objectives and goals were defined, the scope of testing was identified and the test plan was developed
2) test cases were created for the tables at each level and for transforming and loading data between source and target tables. The list of the test cases by priority are in the file
3) tests were performed manually. As the result 70% of critical tests were passed, 50% of high priority tests were passed
4) the bug reports were created and reviewed by team members
5) test report and statistics were prepared

5. TIMETABLE

Name	Date	Activity	Duration, hours
Oksana Krangach	05.05.2023	Test cases creation	4
Oksana Krangach	06.05.2023	Testing	6
Oksana Krangach	06.05.2023	Defect reporting	1
Oksana Krangach	06.05.2023	Test result reporting	0.5
Valentin Tarasov	07.05.2023	Review results	3
Oksana Krangach	08.05.2023	Additional testing	2
Oksana Krangach	08.05.2023	Test result reporting	1

6. NEW DEFECTS STATISTICS

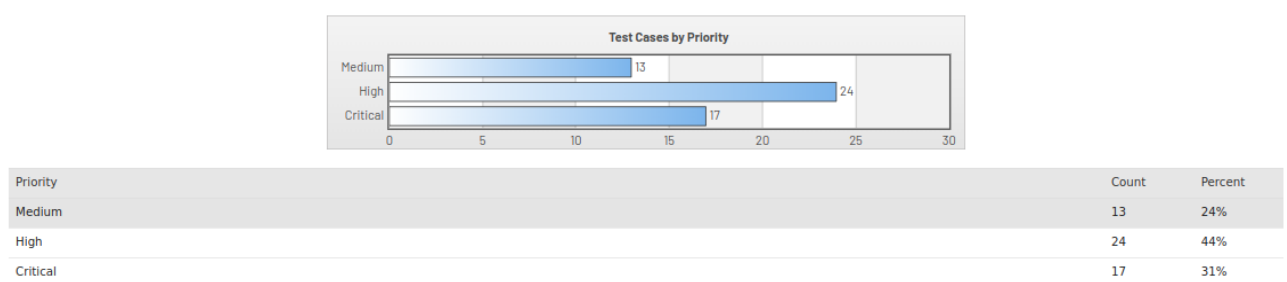| Status	Quantity	Severity			
		Low	Medium	Major	Critical
Submitted	24	3	5	16	0
Verified	24	3	5	16	0
Declined	0	0	0	0	0

7. NEW DEFECTS LIST

ID	Severity	Summary
C54	Low	The column name in the lnd_s1_channels table is 'channellocation'. It was expected to be 'channel_location', as in the source table.
C109	Medium	The size of all columns in the lnd_s1_products table is 240. It was expected to be 256, as in the source table.
C133	Medium	The size of all columns in the lnd_s2_locations table is 230. It was expected to be 256, as in the source table.
C180	Major	There are 11 rows that were duplicated in the lnd_s1_clients
C206	Major	There are 176 rows that were not downloaded to the lnd_s1_sales from the s1_sales
C211	Major	Purchase_date is greater than sale_date in the s1_sales table. Need to check if it's correct.
C215	Major	Valid_from date is greater than Valid_to in the s2_clients table

		Need to check if it's correct.
C216	Major	There are 5 records that were not downloaded to the lnd_s2_client_sales from the s2_client_sales
C226	Major	There are 5 more records in the lnd_s2_locations if compare with s2_locations. According to the tests result, there are duplicatioon
C261	Low	Column name 'first_purrchase_date'. It was expected to be 'first_purchase_date', as in the source table.
C280	Medium	The size of location_name column is 256. It was expected to be 100 according to the documentation
C285	Medium	The size of channel_name column is 50. It was expected to be 30, as in the documentation
C308	Major	The number of the rows in the DWH_CLIENTS table and the sum of rows in the LND_S1_CLIENTS and in the LND_S2_CLIENTS tables is not the same
C434	Major	The phone_number column has values, that differ from the values in the source table
C437	Major	All values in the IS_VALID column = 'Y'
C439	Major	No values equal '2100-01-01' in the VALID_TO column
C458	Major	Sum of the Product_cost values from the dwh_products do not equal sum of the 'cost' and 'product_price' from the source tables
C464	Major	There are 'N/A' and 'NA' values for the location_src_id column
C519	Medium	Size of the column client_middle_name of the MAIN_DASHBOARD table is 70. Size of the column middle_name of the DWH_CLIENTS table is 100. Need to check if it's correct.
C520	Low	The column name in the DM.Main_Dashboard table is 'client_iast_name'. It was expected to be 'client_last_name', as in the documentation.
C521	Major	The sum of the values in the TOTAL_COST column of the MAIN_DASHBOARD table does not equal the sum of (quantity * product_cost) in the source tables DWH_SALES and DWH_PRODUCTS.
C522	Major	The number of rows in the DM_MAIN_DASHBOARD table is not equal to the number of rows in the source DWH_SALES table.
C523	Major	The are 43 rows in the DM_MAIN_DASHBOARD table where column phone_number = 'NULL'. There is not such records in the source table DWH_CLIENTS.
C524	Major	The are 67 rows in the DM_MAIN_DASHBOARD table where the "email" column does not contain the "@" sign. There is not such records in the source table DWH_CLIENTS.

8. OVERALL DEFECTS STATISTICS

Test Cases by Priority

Priority	Count	Percent
Medium	13	24%
High	24	44%
Critical	17	31%
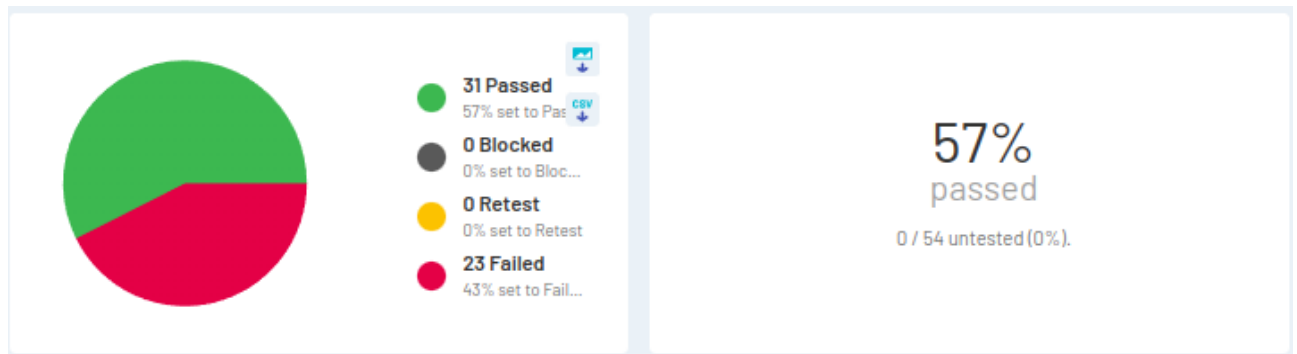
Defects by Priority

Status	Quantity	Priority		
		Medium	High	Critical
Passed	24	7	12	12
Failed	24	6	12	5
Total	*0*	*13*	*24*	*17*

9. RECOMMENDATIONS

It is recommended to check the metadata, transformation, data loading and data duplication based on the test results and make the necessary changes.

10. ATTACHMENTS

There are following attachments:

- list of test cases by priority in file
- test cases and the results of their execution in file