

1ST REVIEW

DATA WAREHOUSE IS THE COLLECTION OF INTEGRATED, SUB-ORIENTED DATABASE DESIGN TO SUPPORT THE DECISION MAKING PROCESS. IT HELPS TO IMPROVE THE DECISION MAKING PROCESS BY SUPPLYING UNIQUE ACCESS TO THE SERVER.

ETL PROCESS: - ETL STANDS FOR THE EXTRACT, TRANSFORM, LOAD.

DATA WAREHOUSING RESPONSIBLE FOR PULLING DATA RESEARCH ARTICLE OPEN ACCESS INTERNATIONAL JOURNAL OF COMPUTER TECHNIQUES OUT OF DIFFERENT SOURCE SYSTEMS AND PLACING IT INTO A DATA WAREHOUSE.

ETL TOOLS: - THE ETL (EXTRACT, TRANSFORM, LOAD) TOOLS WERE USED TO SIMPLIFY THE DATA MANAGEMENT BY REDUCING THE ABSORBED EFFORT.

EXAMPLE: - BUSINESS OBJECTS DATA INTEGRATOR (BODI), MICROSOFT SQL SERVER INTEGRATION SERVICES (SSIS), ORACLE WAREHOUSE BUILDER (OWB) ETC.

2ND REVIVE

EVERY SMALL COMPANY CREATE A LARGE AMOUNNT OF THE DATA FROM THIS RAW DATA CAN BE A MONUMENTAL TASK WITHOUT THE RIGHT TOOLS. THERE IS A NEED TO REMAIN COMPETITIVE IN THE BUSINESS ENVIRONMENT SO MANY PROFESSIONALS TURN TO BUSINESS INTELLIGENCE TOOLS.

ETL TOOL HELP TO WORK WITH THE DATA LIKE DATA MINING, OLAP AND DATA WAREHOUSING.MEANING OF THE ETL IS EXTRACTION, TRANSFORMATION AND LOADING. ETL TOOL HELPS IN COMPARISON WE ARE AIMING TO COMPARE CURRENT MARKET LEADERS AS WELL AS PROVIDE AWARENESS FOR OPEN-SOURCE SOFTWARE AS AN ALTERNATIVE ETL SOLUTION.

ETL IS A PART OF THE BUSINESS INTELLIGENCE. IT IS A PROCESS WHICH IS USED TO EXTRACT DATA FROM DIFFERENT SYSTEMS AND TRANSFORM THAT DATA INTO A STRUCTURE THAT CAN BE USED TO CREATE REPORTS AND ANALYZE DATA.

ETL IS THE PROCESS WHERE ANALYZING AND TESTING IS NOT HAPPEN IN THE REAL WORLD DATA.

3RD REVIVE

DATA WAREHOUSING PROVIDES TOOLS FOR BUSINESS EXECUTIVES TO UNDERSTAND AND USE THEIR DATA TO MAKE STRATEGIC DECISIONS.

CHARACTERISTICS OF DATA WAREHOUSE:-

- IT IS AN SUB- ORIENTED.
- INTEGRATED
- TIME VARIANT
- NON VOLATILE

ARCHITECTURE OF DATA WAREHOUSE: - IT IS AN THREE TIER ARCHITECTURE.

1. THE BOTTOM TIER:- BOTTOM TIER CONTAINS THE DATA WAREHOUSE SERVER .THIS PERFORM THE EXTRACTION,CLEANING AND TRANSFORMATION.
2. THE MIDDLE TIRE: - THE MIDDLE TIER IS OLAP SERVER.THE PURPOSE OF THE SERVER IS IMPLEMENTS MULTIDIMENSIONAL DATA AND OPERATIONS.
3. THE TOP TIER:- TOP TIER IS FRONT END CLIENT LAYER WHICH CONTAIN QUERY AND REPORTING TOOLS,ANALYZING,DATA MINING,EXTRACTING ,CLANING AND TRANSFORMATION.

ETL TOOLS OPERATIONS:-

- SELECTING
- TRANSLATING THE CODE
- SORTING
- JOINING THE DATA FROM MULTIPLE SOURCE
- AGGREGATION
- SPLITTING

4TH REVIVE

WAREHOUSING METHODOLOGIES WITH RELATIONAL DATABASES CANNOT BE SUCCESSFULLY APPLIED FOR STORING AND ANALYZING SUCH DATA. MANY NEW TECHNOLOGIES HAVE EMERGED SUCH AS NOSQL WAREHOUSING IN ORDER TO INCREASE THE PERFORMANCE AND THE AVAILABILITY OF SERVICES.

IN TRADITIONAL DATA WAREHOUSE WE USE THE MOLAP AND THE ROLAP ETL TOOLS ON THE DATA BUT IN NOSQL IT IS VERY HARD TO USE THAT BECAUSE IT CONSIST THE UNSTRUCTURED DATA IN MASSIVE AMOUNT.

TO OVERCOME THIS PROBLE THE BPMN BASED ETL PROCESS MODEL IS USED. BPMN STANDS FOR BUSINESS PROCESS MODELING NOTATION (BPMN). BPMN PROVIDES A CONCEPTUAL AND IMPLEMENTATION-INDEPENDENT SPECIFICATION OF SUCH PROCESSES, WHICH HIDES TECHNICAL DETAILS AND ALLOWS USERS AND DESIGNERS TO FOCUS ON ESSENTIAL CHARACTERISTICS OF SUCH PROCESSES. ADVANTAGE OF BPMN IS THAT IT HELPS IN GRAPHICALLY PORTRAYING ALSO COMPLEX PROCESSES.

5TH REVIVE

DATA MINING IS THE PROCESS WHERE WE USE THE RAW DATA AND EXTRACT THE USEFUL INFORMATION FROM THE DATA IN DATABASE. IS ALSO KNOWN AS THE KNOWLEDGE DISCOVERY IN DATABASE(KDD).DATA MINING IS THE PART OF THE KNOWLEDGE DISCOVERY PROCESS.

ETL STANDS FOR THE EXTRACTION TRSFROM LOAD IT HELP TO SAVE TIME AND MONEY BY ELIMINTING THE NEED OF HAND CODING A NEW DATA WAREHOUSE IS DEVELOPED.

PURPOSE OF ETL TOOLS:-

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- CLEANSING OF THE DATA:- USEFUL DATA IS EXTRACTED AND OTHER DATA WILL DISCARD.
- LOADING THE DATA IN WAREHOUSE : - DATA LOAD INTO THE END TARGET MEANS THE DATA WAREHOUSE.

REAL LIFE ETL TOOLS:-

CYCLE INITIATION

2. BUILD REFERENCE DATA

3. EXTRACT

4. VALIDATE

5. TRANSFORM

6. STAGE

7. AUDIT REPORTS

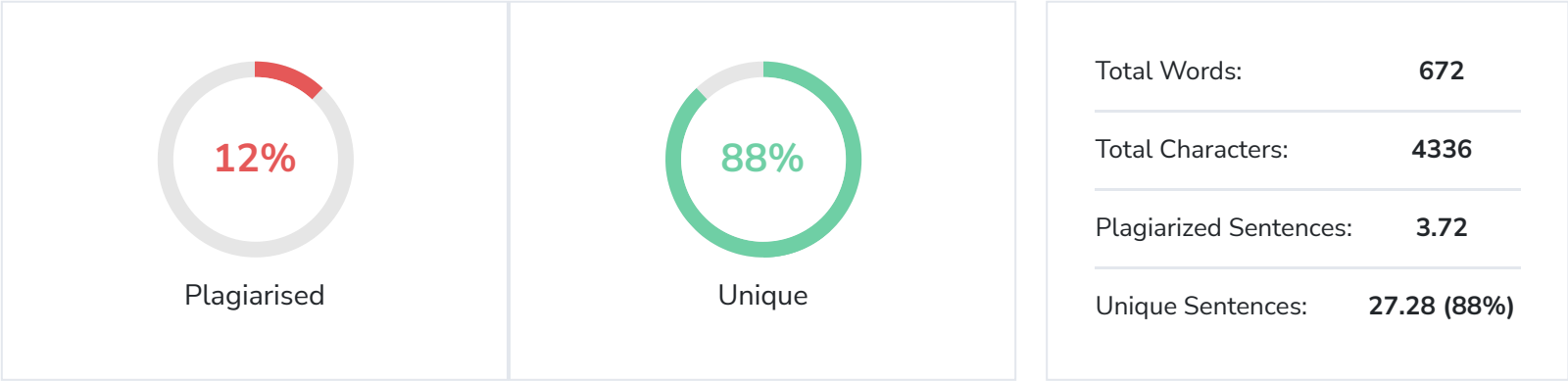
8. PUBLISH

9. ARCHIVE

10. CLEAN UP

Plagiarism Scan Report

Report Generated on: Jan 04,2023



Content Checked for Plagiarism

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Information Systems: 14th European, Mediterranean, and ... [↗](#)

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<https://books.google.com/books?id=5fwwDwAAQBAJ>

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BPMN 2.0 for Beginners - ProcessMaker [↗](#)

BPMN STANDS FOR BUSINESS PROCESS MODELING NOTATION (BPMN).

<https://www.processmaker.com/resources/customer-success/ebooks/bpmn-2-0-for-beginners/#:~:text=BPMN%20stands%20for%20Business%20Process,easily%20by%20other%20interested%20parties.>

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https://link.springer.com/chapter/10.1007/978-3-642-54655-6_8

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