

QBSM: A Query Builder for Spreadsheet Micro

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ABSTRACT: In today's business environment Business Intelligence and Related Document Report and Analysis process is the highest requirement. All the business individuals want to maintain all their business needs in single entity software called SpreadSheets. These spreadsheets are very popular in business industry, which contains lots of supplementary features: statistics, visualization, reporting, linear programming solvers, Web queries periodically downloading data from external sources and so on. Spreadsheet support all kind of reporting, data analysis. So business people can easily get every information into spreadsheet, so there is huge requirement in market to translate the business logic written into sql convert to the macro. So QBMS demonstrate that a spreadsheet can implement all data transformations. Query Converter tool's main aim is convert "SQL" language into the spreadsheet macro. Thereby, database operations become available to the users who do not want to ,migrate to a database.

KEYWORDS: Query Languages, Search Resource, Relational Databases, Spreadsheets.

I. INTRODUCTION

Spreadsheets and databases are utilized to store and oversee sets of information. The essential substance in a spreadsheet or a database is an arrangement of information qualities. Where spreadsheets and databases is by they way they store and control the information. A spreadsheet stores information values in cells, with various cells spoke to in an arrangement of lines and segments.

A database normally stores information values in tables. Every table has a name and one or more sections and columns. A column in a table is known as a record.

A solitary record incorporates a quality for every segment in a table. Databases can uphold connections between records in various tables.

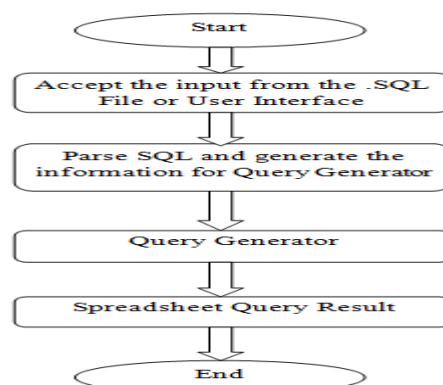


Fig.1. Overall System Flow Design

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The most broadly utilized spreadsheet project is Excel, which is a piece of Microsoft Office. Other spreadsheet programs frame a portion of Open Office and GoogleDocs. Database advancements incorporate Microsoft Access, Oracle, MySQL and SQL Server, among numerous others. A few databases are keeping running on servers and got to over systems, including the Internet. As a rule, a database will have a product application based on top of it, giving client access to the information.

II. PROPOSED METHODOLOGY

The proposed methodology for implementations is described by means of the following illustrations:

- Database: We are using sql database where business logic is store.
- Database-Driver: SQL database access driver which is used to connect database with external system.
- DAL: Database access layer which is written in java to handle all operation related to database.
- Query-Convertor-Tool: This is main interface module which is take "SQL" from the database and pass information for the processing.
- SQL-Query-Parser: This component is mainly used to parse the SQL of different types and generate the required information for the spreadsheet macro query generator.

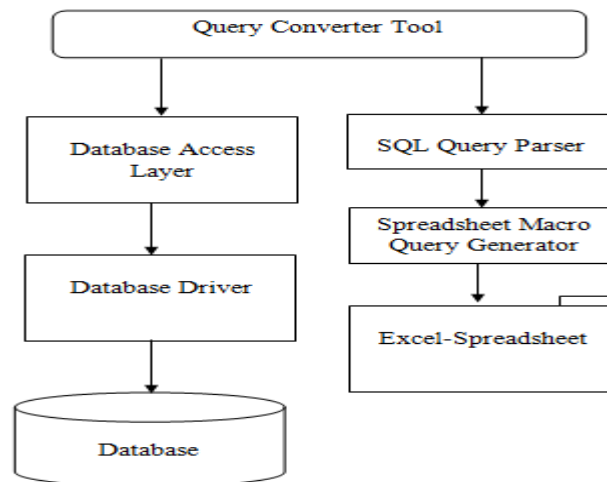


Fig.2. Proposed Architecture Design

Proposed Algorithm Steps

Step-1: Create Spreadsheet which contains number of worksheet.

Step-2: Collect Worksheet and their data.

Step-3: Create Query Compiler which performs different operations on Query given by user.

Step-4: User pass their SQL Query to the compiler.

Step-5: Compiler take user query and perform following various operations:

- Parse SQL query.
- Create tables.
- Compile query.
- Get Resultset.
- Perform operations: Aggregation, string, Join and etc.

Step-6: After compiling query create final Resultset to display to user.

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III. RELATED STUDY

There is additionally various papers which talk about different strategies to bolster abnormal state configuration of spreadsheets, in specific. Some of them consider spreadsheets from the utilitarian programming prospect.

There are distinctive databases we have known i.e. MySQL, oracle and so forth. Utilizing which we can store our information in table formats. These databases are hard to utilize and we have to introduce on system. Existing framework Translating Relational Queries into Spreadsheets yet there are some diverse issues like intermittence, Not allow the joining relations and is inconsistent with different spreadsheets and No capacity to express social queries, and the clients of spreadsheets cannot perform social information changes in the spreadsheet itself.

To the best of our achievements, the issue of express social variable based math and SQL in spreadsheets has not been considered in the past paper we adjust here preceding [1]. The taking after results are the most like our work. The article [2] proposes an expansion of the arrangement of spreadsheet capacities by a deliberately composed database capacity, whereby the client can determine and later execute SQL questions in a spreadsheet-like style, one venture at once. Our expansion implies that the very same usefulness can be accomplished by the spreadsheet itself.

Two papers [3], [4] depict a task, later named Query by Excel to augment SQL by spreadsheet, permitting the client to regard database tables as though they were situated in a spreadsheet and characterize computations over lines and segments by equations approximating those found in spreadsheets. In the last paper a spreadsheet interface is offered for determining this computation, which must be indicated in a SQL-like code in the prior papers. Following are some existing studies and approaches related for Translating Relational Queries into Spreadsheets. To the best of our knowledge, the problem of expressing relational algebra and SQL in spreadsheets has not been considered in the setting.

The following results are the most similar to our work. The paper [1] proposes an extension of The earlier paper [4] demonstrated as a “proof of concept”, that Excel (and other spreadsheets) are capable of storing and querying relational data, and can thereby serve as database engines. Hence extended version of spreadsheet proposes an extension of the set of spreadsheet functions by a carefully designed database function, whereby the user can specify and later execute SQL queries in a spreadsheet-like style, one step at a time.

These additional operators are executed by a classical database engine running in the background. Our contribution means that exactly the same functionality can be achieved by the spreadsheet itself. There is a paper [5] which describes a project, named Query by Excel to extend SQL by spreadsheet-inspired functionality, allowing the user to treat database tables as if they were located in a spreadsheet and define calculations over rows and columns by formulas resembling those found in spreadsheets. In the paper [1] a spreadsheet interface is offered for specifying these calculations, which had to be specified in an SQL-like code in the earlier papers. Finally, paper describes a method to allow RDBMs to query data stored in spreadsheets.

IV. CONCLUSION

We have set up that SQL can be consequently changed over into spreadsheet code. Hence, we have demonstrated the force of the spreadsheet worldview, which subsumes the worldview of social databases. As the following strides we plan to create enhancements for SQL inquiries deciphered into spreadsheets. We are likewise intrigued whether spreadsheets can normally execute different models of databases, similar to semi-organized or question social ones. With the help of this tool small business does not need to migrate to the database.

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