International Journal on Future Revolution in Computer Science & Communication Engineering
Volume: 3 Issue: 7
ISSN: 2454-4248
44 – 46

Virtual DBA for SQL Thin Client

Ms Swaroopa Shastri
Assistant Professor,
Dept. of Studies in Computer Applications (MCA),
Visvesvaraya Technological University,
Centre for PG studies, Kalaburagi
E-mail: swaroopas04@gmail.com

Mr Govind D Mundada
Student, MCA VI Semester,
Dept. of Studies in Computer Applications (MCA),
Visvesvaraya Technological University,
Centre for PG studies, Kalaburagi
E-mail:govinddmundada@gmail.com

Abstract— The users has to connect the company database remotely and make requested changes. This project allows the users to connect with the database without having any client software's to be installed. The DBA and the other employees working on MS SQL Server can access it if and if it is installed in the machine, if the MS SQL server is not installed it is impossible to get connected and work with the server. If the DBA is not in the organization and it is very immediately require restoring or taking the back-up of the database or any other tsk like that, the DBA can get connected to the server only through a machine in which MS SQL server is installed. The only requirement is web browser. The current study presents a tool for remote database administration that is executed through web application. The web application provides database administrators (DBAs) to perform their task by automatically identifying databases. The proposed tool provides database administrationservices anywhere and anytime. Furthermore, the proposed tool enables DBAs to Manage databaseresiding in mobile hosts or famed hosts. The MS SQL Server has to be installed in the server machines, through which the workers will access the respective databases to write there codes. The DBA too can access the MS SQL Server only if it installed in the machine. If MS SQL Server is not installed in the machine neither the DBA can access the server nor can the workers access it. Therefore in the present study we are developing a web application which helps us to perform the entire DBA tasks can creating user, setting the access permissions, creating databases, taking back-up of the database, restoring the database etc.

Keywords:*Pervasive computing,DBA.*

*****

I. INTRODUCTION

The context-aware tool for remote database administration that is executed in any web browsers. Therefore, the proposed tool provides database administration services anywhere and anytime without the installation of the MS SQL Server in the client machine.Increasingly modern companies require efficient strategies for Administration and Management of Database Systems (DBS) and a presence of the Database Administrator (DBA) starting to become an important person in the group.

The DBA is responsible for assuring the complete functioning of Databases, keeping them always functioning (to guarantee a great data availability) and with a performance adequate to the company's needs through controlling functional aspects of the Database Management Systems (DBMS), such as definition and scheme modification, access authorization, integrity rules specification, security proceedings definition, data access performance monitoring, creation of indexes, control of buffers' size, number of users allowed. The proposed system can also be accessed through Mobiles if a web browser is available in it. The proposed system makes it very easier for the DBA's and the other employees of the organization to work efficiently and effectively even though the server MS SQL is not installed in the machine which they are using. The concept of remote access is the main motto of the proposed system.The Virtual DBA uses user parameters to do all of its activities. There is no database as backend to the Virtual DBA application as it stores nothing on itself. But on the other hand, Virtual DBA does operate on database of user choice and performs user requested actions on those database and even stores data on to it.The features offered by the Virtual DBA Tool or the general day to day activities of the administrator are not available less than one applications roof. The administrator has to use various tools to do achieve different tasks on different database systems. Shifting of applications between operations is time consuming and also tired to the user, often this makes overlooked errors and mistakes. Some of these errors may create disordered situations, where recovering seems to be a nightmare. The solution to the problem is to bring a tool with all these operations without changing the applications or tools. There exist few tools / applications available to the administrator to do the activities mentioned in the overview. But the problem is that they are not integrated properly. Few of the applications of platform specific, they can't run on all operating systems

II. LITERATURE SURVEY

The other DBMS apart from Oracle 10g, has a standalone features into it. The prophet 10g has a web choice in which the diverse clients can get to the tables from better places. One such option play as important role in the distributed computation which is vital in today's era [1].The MS SQL Server was launched from 7.0 versions later on MS SQL Server 2000, 2005, 2008, 2014 versions were released but none was designed with a web support [2]. A web application of the database is very important as it gives a flexibility to use the Server or access the server with the installation of the software in the client machine [3]. In some of the previous study they have proposed an expansion of Transportable presentation for the admission of the records. As different

 ISSN: 2454-4248
44 – 46

functioning organizations are accessible in changed products of transportable and several updates for the present operating system in the mobiles led to the failure of the idea [4].Therefore in the current study we have set an objective to develop a web application for the standalone MS SQL Server which can be accessed by the authorized persons [5]. The concept of web application is better than mobile application as it provides a greater user friendly access and an environment which can be used easily without any difficulty [6].

III. PROPOSED APPROACH

A. Proposed Work

To overcome the above problems, SQL Thin Client product is designed. This allows the users to connect the company database remotely and make requested changes. This project allows the users to connect with the database without having any client software's to be installed. The only requirement is web browser. The user need not install MS SQL Server in the client machine.

- Initial screen, which is going to ask user that the server, user name, Password to interact.
- Then it will ask for the required parameters to act on that particular database.
- Based on the parameters it establishes the connection and executes the user queries to his satisfaction.
- In addition to all these features, it also provides an important feature for importing and exporting the data.

The proposed system is a web application which gets connected with MS SQL Server and allows the users to access the database from different places and more importantly it is platform independent.

B. Model Description

Windows Authentication
Username: You must fill out this section. (Example: domain computer\login)
Password: You must fill out this section. (Example password)
Server: You enter this data. Default is (local)
SQL Server Authentication
Username: A valid SQL login.
Password: Password for SQL login for username specified in Username field.
Server
You enter this data. Default is (local)
If you are using SQL authentication, you are prompted for your user name, password, and the server with which to connect. If you are using Windows authentication, SQL Thin Client automatically obtains your username credentials, so you only need to specify a server name.
LOGGING IN
Before you can use the SQL Thin Client, you will need to login to the server you wish to administer. SQL Thin Client supports integrated Windows authentication or SQL authentication. SQL Thin Client must be configured to deny anonymous access if you want to use integrated Windows authentication. Also, in order to use SQL Authentication, the SQL Server must be running in "Mixed Mode" (see the SQL Server documentation for more information).
SAVING A QUERY
Click the "Save query" button to save the text of the query to a file. Be sure to use the .sql extension when saving this file (place the filename in double quotes, for example "myQuery.sql").
LOADING A QUERY
You may reload a previously saved query by typing the path to the .sql file in the "Load Query" textbox (or Browse for the file instead) and clicking the "Load query" button.
IMPORTING DATABASES
The Import Database page allows you to re-create objects on the server using a previously generated export file. Enter the path to a .sql export file in the textbox and click the "Import" button to proceed.
EXPORTING DATABASES
You can export an entire database so that it may be imported into another server later. The Export Database page prompts you to select the name of the database you wish to export, followed by a list of options specifying which objects to export. The objects that may be exported.

C. Objective

Objective before build up a presentation utilizing which approved customer can interface with record gap individual and play out several procedures on the records in the least imperfectintroducing Customer presentation programming. The two principle Objectives for VirtualDBA are:
Finish database administrations outsourcing - The entire database support capacity is outsourced to the remote DBA organizations trade. The trader goes about as the client's database organization group and supplies the greater part of the respected movements required to keep up existing databases and outline Furthermore make new database circumstances.
Supplemental database administrations - The Virtual DBA benefit trade gives companion support administrations to the client's inward database organization unit. The customer outsources subsystem association abilities to the virtual DBA organizations dealer. The adaptability of this model enables the client to choose the arrangement of administrations and additionally the databases upheld.

IV. METHODOLOGY

The proposed system is a replicate of the MS SQL Server. Although MS SQL Server can be used and accessed if and if it is installed in the client machine. If the MS SQL Server is not installed in the client machine we cannot access the server contained databases. The DML, DDL, DDL compliers are present in the MS SQL Server which helps to perform the transactions with the database. The proposed system is described is a web application here I have designed all the above compliers which helps for the transactions of the databases. The compliers design references were taken from the MS SQL Server. The GUI has been completely designed differently when compared with the MS SQL Server. As stated above the proposed system is a web application therefore it requires a web server and the web server chosen was IIS (Internet Information Service).
ASP.Net was used for the development of the presentation layer and the code behind the technology was C#. The proposed system was designed efficiently that when compared

 ISSN: 2454-4248
44 – 46

with the MS SQL Server (any version above 2005) it looks even better and more user friendly and ease to use. The bandwidth required for the accessing the proposed system has also been taken care. Therefore the design of the proposed system is very simple without much designing involved. The website is very light weight no HD images, animated images or some other things which require more bandwidth has not been added. The developed system can be accessed choosing any web browser which makes even more user friendly as it does not demands any specific web browser or browser settings. The look and feel of the design won't change even if the operating system gets changed.

V. RESULTS

Thistool integrates properties frommobile computation and pervasive computation. Therefore, the idea was to introduce the paradigm of ubiquitous computation into database technology. Using the implemented prototype, we can observe that the DBA can execute any database administration command. For example, with this tool implemented, it is possible to create and remove tables (and databases), initialize the DBS, deactivate the DBS, activate Backup processes. Such actions guarantee the complete Functioning in the DBS and keepalways working with a performance adequate to the needs specified by users anytime and anywhere in a safe and immediate form.

VI. CONCLUSION

The development has stayed by all the workers in the group. It is practice, and then it habits the **GUI** providing with the operator. Manipulator approachable protections are providing. The practices of software tumors the expertise, reductions the strength of attention.

VII. REFERENCES

[1] ALONSO, Rafael; KORTH, Henry F. Database System Issues in Nomadic Computing. ACM SIGMORD Record, v. 1, n. 2, may. 1993.

[2] BRAYNER, Angelo, AGUIAR, Monteiro F. Sharing Mobile Databases in Dynamically Configurable Environments. 15th International Conference on Advanced Momation System Engineering (CASE 2003).

[3] DEY, A.K. Understanding and Using Context. Personal and Ubiquitous Computing, Springer-Verlag, v.5, n. 1, p. 4- 7. 2001.

[4] DUNHAM, Margaret H.; HELAL, Abdelsalam(Sumi). Mobile Computing and Databases: Anything new?.ACM SIGMORD Record, v. 24, n. 4, dec. 1995.

[5] GAMMA, Erich; HELM, Richard; JOHNSON, Ralph; VLISSIDES, John. Design Patterns: Elements of Reusable Object-Oriented Sohare. Addison-Wesley, 1994.

[6] Sujata Yankanch,Rashmi KM," Efficient Secure Remote Data Access in the Cloud Computing using the SQL Server and Visual Studio," International Journal of Research in Engineering and the Technology.