**Synopsis**

**Of**

**Universal DataBase System Interface**

**(UDBI)**

**MASTERS OF COMPUTER APPLICATIONS**

**Session (2013-2016)**



**SUBMITTED TO: SUBMITTED BY:**

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**SYNOPSIS OF THESIS/PROJECT WORK**

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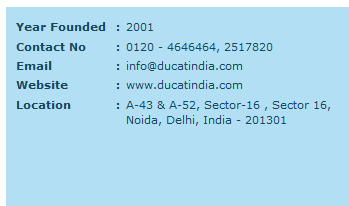
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UNIVERSAL DATABASE

SYSTEM INTERFACE

(UDBI)

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# ABSTRACT

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Database Interface is an industry-standard tool for application development. Using Database Interface, developers can interact with any back end software (i.e. Oracle, MS-SQL Server, MS-Access, My-SQL etc). The database interface can be used to build, test, and debug PL/SQL packages, procedures, triggers, and functions. Database Interface users can create and edit database objects such as tables, views, indexes, constraints, and users. Database Interface's SQL Editor provides an easy and efficient way to write and test scripts and queries, and its powerful data grids provide an easy way to view and edit data related to any DBMS/RDBMS tool.

The innovative idea behind this project is to build a Generic Database Interface. Any user who has expertise in any Database can login through this Interface to connect to his acquainted Database can do all database operations.

## Advantages

* **Flexibility**. The end-user will be able to use any major commercial (or open-source) database on the market.
* **Maintenance**. Since the project is going to be developed using most of the industrial standards coding will be very much understandable and documentation shows the points of extensibility.
* **Ease of Use**. Installation is simple; you just have to create a .war file and drop it in the right directory/folder. The Java search engine interface is text-based, and intended to provide easy access to search operations.

# INTRODUCTION AND OBJECTIVES

Database Interface is an industry-standard tool for application development. Using Database Interface, developers can interact with any back end software (i.e. Oracle, MS-SQL Server, MS-Access, My-SQL etc). The database interface can be used to build, test, and debug PL/SQL packages, procedures, triggers, and functions. Database Interface users can create and edit database objects such as tables, views, indexes, constraints, and users. Database Interface's SQL Editor provides an easy and efficient way to write and test scripts and queries, and its powerful data grids provide an easy way to view and edit data related to any DBMS/RDBMS tool.

The requirements of a database application developer will vary from project to project. On a large team where DBAs manage the DDL, a developer may spend 90% of development time coding and testing SELECT queries to issue from 3GL or 4GL application code. In such an environment, a developer might be concerned only with viewing the DDL and database code. On smaller teams, a developer might be responsible for maintenance of the development schema, movement of test data between schemas, writing procedure code, populating tables from legacy sources, and more. Database Interface facilitates all of these needs.

For example if you are working with oracle, you don't have to be a PL/SQL expert to access database objects with Database Interface. You can view the Oracle Dictionary, tables, indexes, stored procedures, and more - all through a multi-tabbed browser. Database Interface utilizes direct Oracle OCI calls for full access to the Oracle API.

Advanced editing features save time and increase productivity. Code can be created from shortcuts and code templates. You can even create your own code templates.

## Use Database Interface to

1. Create, browse, or alter objects (tables, views, indexes, etc.) including Oracle8 TYPE objects
2. Graphically build, execute, and tune queries
3. Edit and Debug PL/SQL and profile "stored procedures" including functions, packages, and triggers
4. Search for objects
5. Find and fix database problems with constraints, triggers, extents, indexes, and grants

# IDENTIFICATION OF NEED

To clearly identify the need of this application, I will try to exemplify one situation.

A project manager is dealing with an enterprise application, which is in the development phase. This application has got different faces such as a desktop interface, a web interface and mobile interface. Initially all these applications are not integrated. Once these entire interfaces are working well, they are going to be integrated. In such occasion the database which is being used must be same. But while designing these individual modules, creating a sample database for each module and perform the test, it is not possible practically. So for that reason, there must be a kind of tool, using which we can carry the database to any another location and use the database there very easily.

The present application will fulfill the requirement. The current application can be used just as a brief case of database.

# MODULES

1. Structures Module
2. Properties Module
3. SQL Querying Module
4. Import Database Module
5. Export Database Module
6. DML Operations Module
7. Search Operations Module

# SOFTWARE AND HARDWARE SPECIFICATIONS

## (i) Hardware requirement for developing

1. Pentium III Processor with @ 800 Mhz Speed
2. 128 RAM
3. 10 GB HDD
4. 14” Color Monitor
5. 1.44 MB FDD
6. CD ROM drive
7. 105 keys keyboard
8. 4 Serial + 4 Parallel ports
9. Mouse
10. Printer
11. Ethernet card
12. Internet Modem

# (ii) Software requirement for developing

1. Windows 2000 Operating system
2. J2SE 1.4
3. Tomcat Web Server 5.0.25

# TECHNICAL ENVIRONMENT

|  |  |  |
| --- | --- | --- |
| Web Server | : | Tomcat 5.5 |
| Server-side Technologies | : | Java, Java Server Pages, Servlets |
| Client-side Technologies | : | Hyper Text Markup Language, Cascading Style Sheets, Java Script, AJAX |
| Operating System | : | Windows (or) Linux (or) Mac any version |

# CONCLUSION

This application can be extended so that it will give maximum performance including the security related aspects, resulting releasing of this application as a product in the open market. As it has got very user friendly look and feel, it will be definitely succeeded in the market as a product.

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