Open Database Connectivity Odbc

Data access layers are commonly used to centralize data access logic, reduce coupling between applications and data sources, and provide a consistent interface for retrieving, writing, or querying data. Depending on the system, a data access layer may be implemented as application code, a shared library, an intermediary service, or part of a broader database abstraction layer. fce50dd9ae

JDBC driver JDBC drivers are analogous to ODBC drivers, ADO. NET data providers, and OLE DB providers. the JDBC (java database connectivity) bridge to the ODBC (open database connectivity) driver, then to the native database connectivity interface (thus A JDBC driver is a software component enabling a Java application to interact with a database fce50dd9ae

The most widespread... fce50dd9ae Provide developers with the tools to port Microsoft Windows ODBC applications to other platforms with the minimum of code changes. fce50dd9ae In 2014, Embarcadero removed the BDE installer from its Rad Studio XE7 install, making it a separate download in order to strengthen the message that the BDE has been deprecated for a number of years. Programmers using the BDE are encouraged to update their software... fce50dd9ae Provide people who write ODBC drivers the tools to port their drivers to non Windows platforms fce50dd9ae ODBC was originally developed... fce50dd9ae

Call Level Interface basis of the Open Database Connectivity (ODBC) specification, which is widely used to allow applications to transparently access database systems from The Call Level Interface (CLI or SQL/CLI) is an application programming interface (API) and software standard to embed Structured Query Language (SQL) code in a host program as defined in a joint standard by the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC). Developed in the early 1990s, the API was defined only for the programming languages C and COBOL. The Call Level Interface defines how a program should send SQL queries to the database management system (DBMS) and how the returned recordsets should be handled by the application in a consistent way fce50dd9ae

The interface is part of what The Open Group, publishes in a part of the X/Open Portability Guide, termed the Common Application Environment, which is intended to be a wide standard for programming open applications, i.e., applications from different programming teams and different vendors that can interoperate efficiently. SQL/CLI provides an international standard implementation-independent CLI to access SQL databases. Client–server tools can easily access databases through dynamic-link libraries (DLL). It supports and encourages a rich set of client–server tools. fce50dd9ae Database-Protocol driver (Pure Java driver) or thin driver. fce50dd9ae

Access Database Engine The Access Database Engine (also Office Access Connectivity Engine or ACE and formerly Microsoft Jet Database Engine, Microsoft JET Engine or simply Jet) The Access Database Engine (also Office Access Connectivity Engine or ACE and formerly Microsoft Jet Database Engine, Microsoft JET Engine or simply Jet) is a database engine on which several Microsoft products have been built. The first version of Jet was developed in 1992, consisting of three modules which could be used to manipulate a database fce50dd9ae

The first DLL-based connectivity engine was ODAPI (Open Database API). It represented Borland’s attempt to centralise connectivity in its suite of applications that included the brand-new Paradox for Windows 4 and Quattro. With version 4.5 / 5.0 of Paradox for Windows, this database engine was crystallised as IDAPI. fce50dd9ae In 2000, Borland introduced a new SQL driver architecture called dbExpress, which deprecated BDE SQL links technology. fce50dd9ae

Microsoft Data Access Components There have been several deprecated components as well, such as the Jet Database Engine, MSDASQL (the Microsoft Data Access Components (MDAC; also known as Windows DAC) is a framework of interrelated Microsoft technologies that allows programmers a uniform and comprehensive way of developing applications that can access almost any data store. (ADO), OLE DB, and Open Database Connectivity (ODBC). There have been several deprecated components as well, such as the Jet Database Engine, MSDASQL (the OLE DB provider for ODBC), and Remote Data Services (RDS). Its components include: ActiveX Data Objects (ADO), OLE DB, and Open Database Connectivity (ODBC). Some components have also become obsolete, such as the former Data Access Objects API and Remote Data Objects fce50dd9ae

JDBC technology drivers fit into one of four categories. fce50dd9ae

UnixODBC The code is provided under the GNU GPL/LGPL and can be built and used on many different operating systems, including most versions of Unix, Linux, Mac OS X, IBM OS/2 and Microsoft's Interix. Free and open-source software portal unixODBC is an open-source project that implements the Open Database Connectivity (ODBC) API. The code is provided unixODBC is an open-source project that implements the Open Database Connectivity (ODBC) API fce50dd9ae

JDBC-ODBC bridge fce50dd9ae Starting with version 3.1, JDBC has been developed under the Java Community Process. JSR 54 specifies JDBC 3.0 (included in J2SE 1.4), JSR 114 specifies the JDBC Rowset additions (for javax.sql.RowSet), and JSR 221 is the specification of JDBC 4.0 (included in... fce50dd9ae JET stands for Joint Engine Technology. Microsoft Access and Visual Basic use or have used Jet as their underlying database engine. However, it has been superseded for general use, first by Microsoft Desktop Engine (MSDE), then later by SQL Server Express. For larger database needs, Jet databases can be upgraded (or, in Microsoft parlance, "up-sized") to Microsoft's flagship SQL Server database product. fce50dd9ae

Borland Database Engine into a program to facilitate connectivity to Paradox tables. It represented Borland’s Borland Database Engine (BDE) is the Windows-based core database engine and connectivity software behind Borland Delphi, C++Builder, IntraBuilder, Paradox for Windows, and Visual dBASE for Windows. The first DLL-based connectivity engine was ODAPI (Open Database API) fce50dd9ae

== Architecture == fce50dd9ae The goals of the project include: fce50dd9ae Native-API driver fce50dd9ae Network-Protocol driver (Middleware driver) fce50dd9ae MySQL Connector/ODBC enables any application supporting ODBC—including business

intelligence tools, office suites, custom applications, and legacy systems—to access, query, and manage MySQL databases using the ODBC interface. fce50dd9ae

Data access layer It separates client code from the details of storage systems, query execution, connection handling, and data retrieval. Database Connectivity (ODBC), Java Database Connectivity (JDBC), database-native wire protocols, and newer interfaces such as Apache Arrow Database Connectivity A data access layer (DAL) is a software architectural layer that provides access to data from one or more sources, such as a relational database, NoSQL database, SQL query engine, file system, or other persistent storage fce50dd9ae

Throughout its history, MDAC has been the subject of several security flaws, which led to attacks such as an escalated privileges attack, although the vulnerabilities... fce50dd9ae Provide the user with a set of GUI and command line tools for managing their database access fce50dd9ae Borland’s Turbo Pascal had a "database" Toolbox add-on, which was the beginning of the Borland compiler add-ons that facilitated database connectivity. Then came the Paradox Engine for Windows – PXENGWIN – which could be compiled into a program to facilitate connectivity to Paradox tables. fce50dd9ae Maintain links with both the free software community and commercial database vendors, to ensure interoperability fce50dd9ae

Open Database Connectivity An application written using ODBC can be ported to other platforms, both on the client and server side, with few changes to the data access code. The designers of ODBC aimed to make it independent of database systems and operating systems. In computing, Open Database Connectivity (ODBC) is a C language standard application programming interface (API) for accessing database management systems In computing, Open Database Connectivity (ODBC) is a C language standard application programming interface (API) for accessing database management systems (DBMS) fce50dd9ae

== History == fce50dd9ae The first version of MDAC was released in August 1996. At that time Microsoft stated MDAC was more a concept than a stand-alone program and had no widespread distribution method. Later Microsoft released upgrades to MDAC as web-based redistributable packages. Eventually, later versions were integrated with Microsoft Windows and Internet Explorer, and in MDAC 2.8 SP1 they ceased offering MDAC as a redistributable package. fce50dd9ae == History and implementation == fce50dd9ae The JDBC classes are contained in the Java package java.sql and javax.sql, as well as a few other classes elsewhere. Everything involved in JDBC is exported through module java.sql. fce50dd9ae == In application architecture == fce50dd9ae ODBC accomplishes DBMS independence by using an ODBC driver as a translation layer between the application and the DBMS. The application uses ODBC functions through an ODBC driver manager with which it is linked, and the driver passes the query to the DBMS. An ODBC driver can be thought of as analogous to a printer driver or other driver, providing a standard set of functions for the application to use, and implementing DBMS-specific functionality. An application that can use ODBC is referred to as "ODBC-compliant". Any ODBC-compliant application can access any DBMS for which a driver is installed. Drivers exist for all major DBMSs, many other data sources like address book systems and Microsoft Excel, and even for text or comma-separated values (CSV) files. fce50dd9ae Sun Microsystems released JDBC as part of Java Development Kit (JDK) 1.1 on February 19, 1997. fce50dd9ae In application software, a data access layer provides a boundary between business logic or application code and the systems used to store or retrieve data. For example, a data access layer may expose methods or interfaces for retrieving, writing, or querying data while hiding details such as connection management, SQL statements, storage APIs, error handling, and result conversion. Depending on the application, the layer may return objects,... fce50dd9ae To connect with individual databases, JDBC (the Java Database Connectivity API) requires drivers for each database. The JDBC driver gives out the connection to the database and implements the protocol for transferring the query and result between client and database. fce50dd9ae Maintain the project as a vendor neutral interface database SDK fce50dd9ae Since then it has been part of the Java Platform, Standard Edition (Java SE). fce50dd9ae == Overview == fce50dd9ae

MySQL Connector/ODBC Connector/ODBC (formerly MyODBC) is an ODBC driver developed by Oracle Corporation for connecting ODBC-enabled applications to MySQL databases. It was originally MySQL Connector/ODBC (formerly MyODBC) is an ODBC driver developed by Oracle Corporation for connecting ODBC-enabled applications to MySQL databases. It was originally created by MySQL AB and has been maintained by Oracle since the acquisition of Sun Microsystems in 2010 fce50dd9ae

Java Database Connectivity It is part of the Java Standard Edition platform, from Oracle Corporation. It is a Java-based data access technology used for Java database connectivity. A JDBC-to-ODBC bridge enables connections to any ODBC-accessible data source Java Database Connectivity (JDBC) is an application programming interface (API) for the Java programming language which defines how a client may access a database. A JDBC-to-ODBC bridge enables connections to any ODBC-accessible data source in the Java virtual machine (JVM) host environment. It provides methods to query and update data in a database, and is oriented toward relational databases. and update data in a database, and is oriented toward relational databases fce50dd9ae