

PUREFORMS' DATABASE SERVICES

What is a database and what are the major databases

The database is a piece of software that enables the capture, storage and retrieval of data. There are many database vendors and we support the mainstream databases, which together represents over 98% of the market, namely, Oracle, MS SQL Server, Sybase, DB2, Informix and even Microsoft Access. Database services for a web site are also called "back-end" services, since it works in the background. The visual screens that users see are what meet the eyes and are called "front-end".



SQL – Database Programming Language

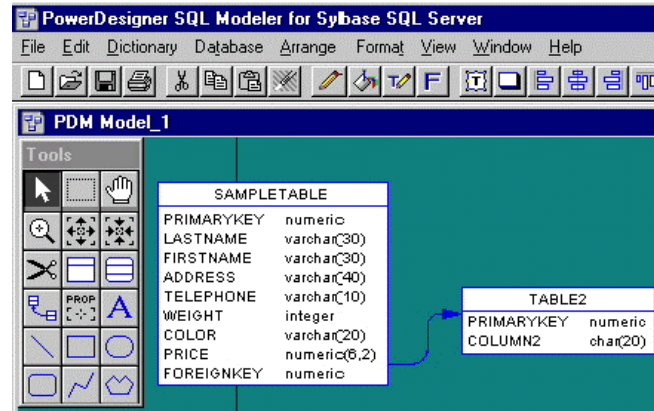
All the above relational databases use a common database language, namely, SQL. Each database vendor may have its specified enhancements to the common SQL to provide vendor-specified features. We can use the common set of SQL to ensure portability from one database platform to another.

Our Database Services Includes

The database services we can bring to your Internet or database projects include but are not limited to the following:

1. Gathering raw data items needed to support your web sites. Examples of data item are: LastName, FirstName, Address, PhoneNumber, Weight, Color, Size, Price, etc.

2. Organized the raw data items into database tables. A technique known as "normalization" is used to ensure that each data item is stored only once in the entire database. This ensures storage and retrieval efficiency. For certain section of the web site, the database may be "denormalize" to boost efficiency.



Database Schema - Normalized tables and data items

3. We document your database structure (also call schema) using software tools, e.g., PowerDesigner. This enables easy modification of the database schema and deployment to any of the major database vendors' platform.
4. We install, configure the database on your database server. We implement the schema on the database server. We make its data accessible by your web site and its users.
5. We backup your database's data for security reason.
6. Deploy a logon security scheme for your database to protect your data from hackers and non-authorized access.
7. We monitor your database performance once the web site goes live. Database maintenance activities will be done to fine-tune its performance. This includes updating usage statistics, tables partitioning, data replication and fail-over servers considerations.
8. We ensure that data integrity is maintained by using "transactions". For example, in a teller machine application, transfer of funds from account#1 to account#2 either completes in its entirety or the entire transaction is cancel. There will not be a situation where fund is deducted from account#1, then computer/power failure, then funds not deposited into account#2. This ensures that "atomicity", a database/programming jargon, is strictly adhered.