Preface

A database is simply that, a place to store data. The data is stored on a "Server", which is just a big computer that can be located within your organization or "hosted" by an outside service provider.

The data is stored in "Tables", very similar to spreadsheets, in that they have rows & columns. Each row contains a set of data (a dataset) in separate columns e.g. First name, Surname, Phone, email etc. and has a unique identification number or "ID". One complete dataset is called one Record. Each column contains the same data Field e.g. First Names, Surnames.

Unique ID	Surname	First name	Address	Phone	E-mail
1	Smith	John	1 Smith St Melbourne	1234 5678	jsmith@...
2	Jones	Levy	10 Jones Road, Yarraville	5678 1234	Ljones@...
3	Croft	Ellen	100 Railway Road, Brunswick	4321 8765	Crofty@...
4	Cole	Don	101 Main Street, Jonesville	8756 4321	N/A

Data is typically entered into and edited in Tables using a FORM. Data is extracted from the Tables according to very precise parameters using a QUERY (also called SQL which stands for Structured Query Language, and is used to communicate with a database). And the result of that Query is formatted into a REPORT that can be viewed onscreen or printed.

As there are many tables e.g. member records, pennant results, etc. there must be a "Relationship" between the tables so data can be extracted from multiple tables using common records, manipulated into usable Reports. This is why such databases are referred to as Relational Databases, the prime feature of them being that the same set of data is held only once within the Database. For example, the "Members" table stores all personal information or data and each member record has a unique ID number. The "Scores" table stores all pennant results data. When a result is entered into the scores table, the "Member ID" is also stored with that result and so the relationship between tables can be established.

Access to data is provided by a Database Management System (DBMS) consisting of an integrated set of computer software that allows users to interact with the databases, subject to pre-defined access security levels. The DBMS provides various functions that allow entry, storage and retrieval of large quantities of information and provides ways to manage how that information is organized, extracted & displayed.

By asking a question using a Query, data can be retrieved from both the Scores and Members tables using the Member ID to create the relationship between the tables. For example – *Select First name, Surname and first round score from both the Members and the Scores tables, Where Scores Member ID = Members Member ID And Member ID = 202 (my ID number)*. This would return my name and first round scores since the inception of the database. This is a simplified example to give you some idea as to how data is retrieved.

So, via the relationship between tables and asking the right question, the resulting data is displayed.

About the VBSA database

The VBSA pay a hosting company (Siteground) to securely store, maintain and backup the data in our database and website services on their Servers.

When you open the website or the administrative area, you are actually accessing this data continually. Via the administrative area you may store new data, update existing data or delete data.

The VBSA database is built using two basic languages

- PHP: Hypertext Preprocessor (PHP) is a widely-used open source general-purpose scripting language that is especially suited for web development and can be embedded into HTML.
- MySQL Structured Query Language (SQL) is the world's most popular open source database. With its proven performance, reliability and ease-of-use, MySQL has become the leading database choice for web-based applications, used by high profile web properties including Facebook, Twitter, YouTube, Yahoo! and many more.

Access to the structure of the database is via the cpanel of the site and then via phpmyadmin.

Whilst this probably does not mean much to some, it will assist anyone that takes on the maintenance and development of the database.