

which a user interacts with electronic devices such as computers and smartphones using icons, menus, and other visual indicators or representations (graphics).

GUIs graphically display information and related user controls, unlike text-based interfaces, where data and commands are strictly in text. GUI representations are manipulated by a pointing device such as a mouse, trackball, or stylus, or by a finger on a touch screen. Well-designed graphical user interfaces can free the user from learning complex command languages. On the other hand, many users find that they work more effectively with a command-driven interface, especially if they already know the command language.

phpMyAdmin is a free and open-source web-based tool for managing MySQL and MariaDB databases. It is written in PHP and allows users to perform various database management tasks, such as creating and modifying tables, managing users and permissions, and executing SQL statements. One of the main advantages of phpMyAdmin is its ease of use. It has a user-friendly interface that allows users to perform complex database management tasks without having to write any SQL code.

It also supports various features such as browsing and editing records, managing database structure, and importing and exporting data. phpMyAdmin also supports a wide range of operating systems and web servers, making it a versatile choice for managing MySQL databases. It can be easily installed on a web server and configured to manage multiple databases. Additionally, it also supports several languages, so it is easy to use for non-English speakers.

Overall, phpMyAdmin is a powerful and widely used tool for managing MySQL databases. It is well-suited for both beginners and advanced users, and it is a good choice for managing databases on a web server.

### **3.5 NORMALIZATION**

Normalization is a process of analysing the given relation schema based on their functional dependencies and primary key to achieve desirable properties of minimizing redundancy and minimizing insert, delete, and update anomaly. The normalization process takes a relation schema through a series of tests to certify whether it satisfies a certain normal form. The normal form of a relation refers to the highest normal form condition that it