E-commerce must be supported by corresponding technologies. To study e-commerce, one must master the e-commerce supporting technologies. General speaking, e-commerce supporting technologies can be divided into three categories:

1. Information display technologies which include Web, HTML, XML and Java technologies.
2. Information transmission technologies which consist of EDI, TCP/IP, WAP, WLAN and Bluetooth technologies.
3. Information processing technologies which comprise some common used technology such as GPS, GIS, DSS, GDSS, IDSS.

All the above will be briefly introduced in this chapter. What’s more, the purpose of this part is to give readers a basic understanding of these technologies and help them to build a foundation for their further study on this field.

Key Words  e-commerce, supporting technology, Web, HTML, HTTP, XML, Java, EDI, TCP/IP, WAP, WLAN, Bluetooth, GPS, GIS, DSS, GDSS, IDSS.
comprehension of the supporting technology of e-commerce systems, and it will, too, help you lay solid foundation for the design, construction and application of e-commerce.

2.1 E-commerce Fundamental Technology

2.1.1 Web Technology

The structure of web technology is shown in Fig. 2.1. In this kind of architecture, web client means the terminal with a browser. Web server is the mainframe which stores multimedia data resources and provides www services. The middleware can invoke the database and other applications in the web server. Common middleware include CGI, JDBC and WebAPI.

![Figure 2.1 Web technical structures](image)

The fundamental principle of web communication is as follows. The browser sends http request to the www server. After receiving the request, www server will make response processing, and return the processing result to the browser in the form of html file. Then the browser will interpret and display it to the user. The interaction between www server and database server has to be connected by the middleware.

The web browser is an application, which seems like a word processing application (such as Word Perfect or Microsoft Word) at the client terminal. The webpage displayed on the computer screen is the interpretation of the html document. Instead of typing various commands with the keyboard, the browser with GUI has made it possible for the users to execute their operations by selecting the icons with the mouse, which is a great convenience to the users.

The web browser gets access to a designated document or service by sending request to the web servers based on http protocols. Correspondingly, the web server returns the responding document of the request. Then the browser interprets all the tagged codes and displays them in correct format. Browsers usually have the functions such as URL locating, hyperlink, offline browsing, searching and printing.