

Chapter 25 Networking

1. You use new `ServerSocket (port)` to create a server socket. You can use any number after 1024. If a port is already in use, you will get an exception; then you can choose another number. You can have a server running on a port serving multiple clients.
2. A server socket can handle connection requests from a client. After the connection is established, the communications between the server and the client are through the client sockets.
3. The client program uses new `Socket (hostname, port)` to request a connection to the server.
4. The server listens for connecting requests from clients by invoking `serverSocket.accept()`, which blocks the program from executing the next statement until a connection is established.
5. You need to use `getInputStream()` to create a stream to receive data from the socket and use `getOutputStream()` to create a stream to send data from the socket.
6. To find the IP address of a client that connects to a server, use `getInetAddress()` from the socket. Then use the `getHostName()` and `getHostAddress()` to obtain the host name and IP address from an `InetAddress` instance.
7. Use the `Thread` class and create multiple threads to handle multiple connections, one thread per client.
8. No. An applet can only connect to the server from the machine where the applet is loaded.
9. To find the host name of a machine where the applet is loaded, use `getCodeBase().getHost()`. `getCodeBase()` returns the URL of the applet class. `getHost()` returns the host name.
10. To send or receive objects, create an `ObjectInputStream` from `getInputStream()` and create an `ObjectOutputStream` from `getOutputStream()`.
11. An application can retrieve a file from a remote host, but it cannot update a file on a remote host.
12. Create an URL from the url string of the file. Then use the `openStream()` method to open an `InputStream` for input.

13. Text files, HTML files, and RTF files can be displayed in a JEditorPane. To display a file in a JEditorPane, create an URL from the url string of the file. Then use the setPage(URL) method to set the page to display it.
14. See Section 29.10.