1.platform application architecture

client | server

2.network communication

- ①layer:interface network transport application
- 2protocol:mac ip tcp/udp http
- ③packet:mac frame(mac) ip packet(ip) tcp/udp packet(port) http packet

3.source code/program structure

- ①API/driver/runtime:underlying function/class
- ②library/package/module/framework/engine:base function/class
- 3declaration&implementation:specific function/class
- **4 flow**: entry function/class

4.platform language

<u>c/c++ java c#</u>

5.language framework

- ①data type:void numeric boolean character
- 2 operators-expression
- ③flow control:select statement loop statement
- 4 preprocessor/exception
- ⑤constant variable reference pointer array(string)
- 6 function
- 7class-object

6.language API

gui/event(message)/handler graphic file database threading/forking/asynchronous I/O
network

7.gui class

window:menu toolbar statusbar

dialog:control