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

c/c++ java c# **perl python**

5.language framework

①data type:void numeric boolean character

②operators-expression

③flow control:select statement loop statement

④preprocessor/exception

⑤constant variable reference pointer array(string)

⑥function

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