Mow it works

Dynamic: زمان اجرا

S → func();

polymorphism

late binding
dynamic binding

void func(){
}

static binding
early binding

Static → زمان کامپایل

function over loading

strcat(char*, char*)
strcat(char*, int)
strcat(char*, student)
⋮

0x222

int main()

→ strcat(str, 2);
⇒ call 0x222

Template <typename T>
void test(T a){
⋮
}

فراخوانی test(12); → call 0x449
آرگ نسخه int تابع test

{ vtable
{ vptr

```
class A {
        virtual f1();
        virtual f2();
};

class B : public A {
        f1();
};

class C : public A {
        f2();
};

main() {
    A a;
    B b;
    C c;
    A* aPtr;
    aPtr = &a;
    aPtr -> f1();
    aPtr = &b;
    aPtr -> f1()
    aPtr = &c;
    aPtr -> f1()
}
```

vptr → vtable A

f1	f1-A
f2	f2-A

vptr → vtable B

f1	f1-B
f2	f2-A

vptr → vtable C

f1	f1-A
f2	f2-C

a.vptr = vtable A
b.vptr = vtable B
c.vptr = vtable C

aPtr → vptr → f1();

aPtr → vptr → f1();

aPtr → vptr → f1();