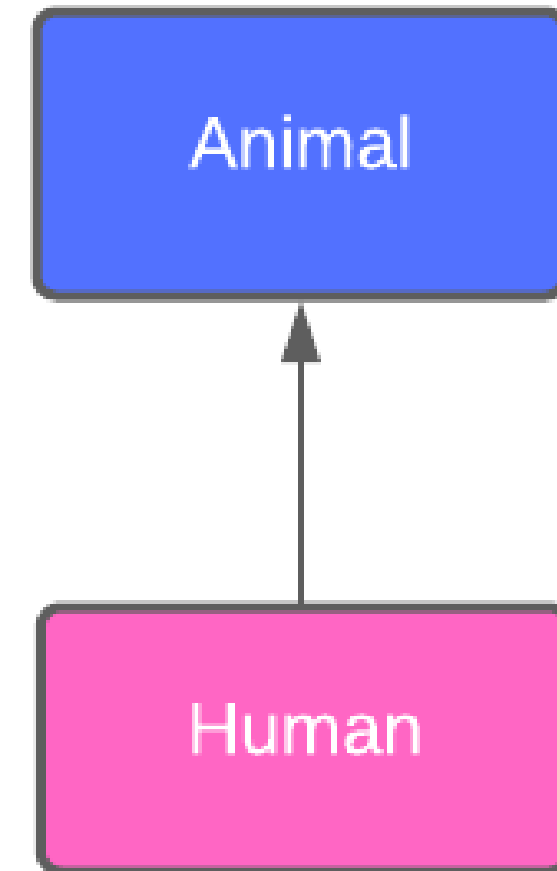


```
Human human;  
Animal *h = &human;
```

Static := Compile-time Animal

Dynamic := Run-time Human



Human human;

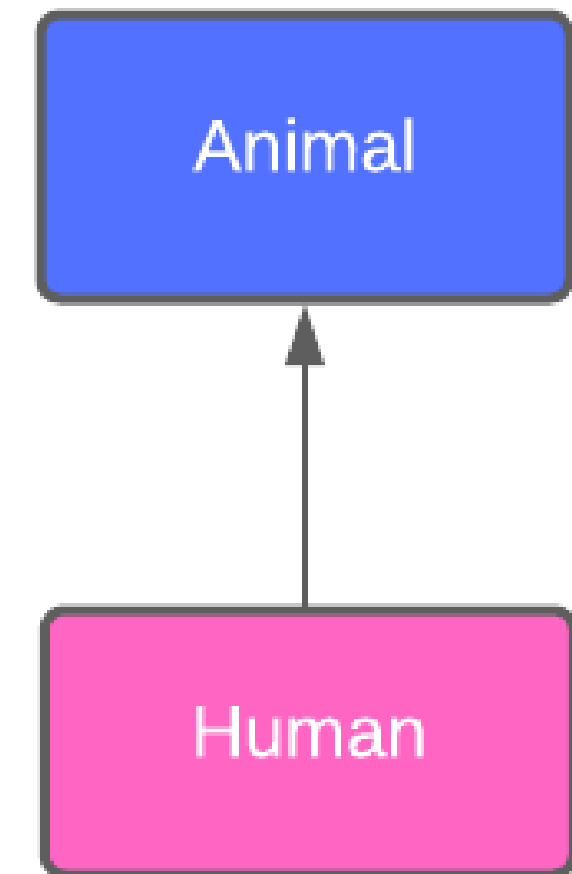
~~Animal h = human;~~

No indirection (object slicing!)

Animal *h = &human;

Indirection

(* := indirection operator)



```
Human human;  
Cow cow;  
Omnivore omnivore;
```

// No indirection

Animal a = human; *// object slicing!*

// Indirection

Omnivore *o_omnivore = &omnivore;

```
Animal *a_human = &human;  
Omnivore *o_human = &human;
```

```
Animal *a_cow = &cow;  
Herbivore *h_cow = &cow;
```

Animal *a_omnivore = &omnivore;

// Which method is called?

a.eat();

o_omnivore->eat();

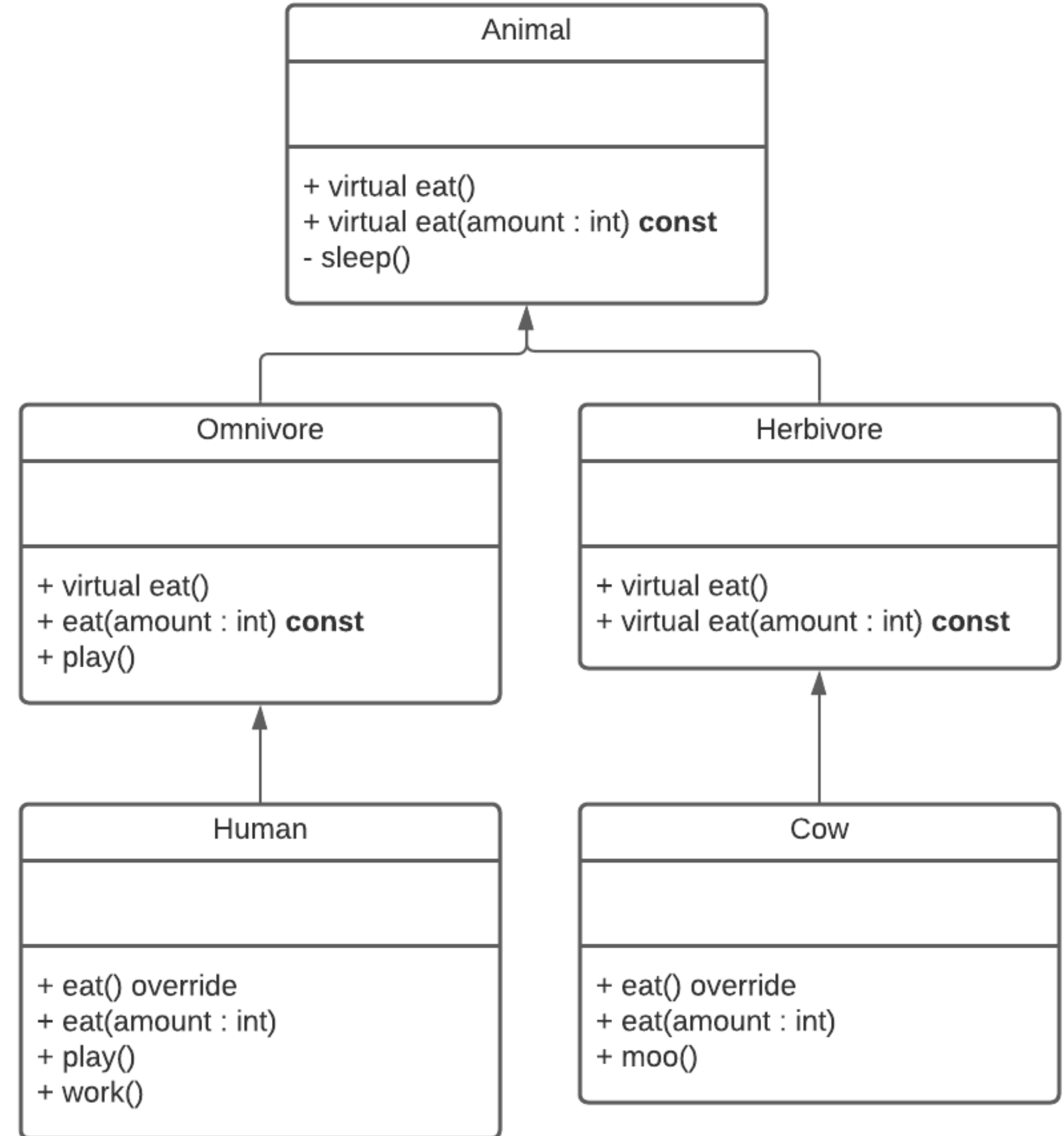
```
a_human->sleep();  
a_human->eat();  
a_human->eat(2);  
a_human->play();
```

```
o_human->eat();  
o_human->eat(2);  
o_human->play();
```

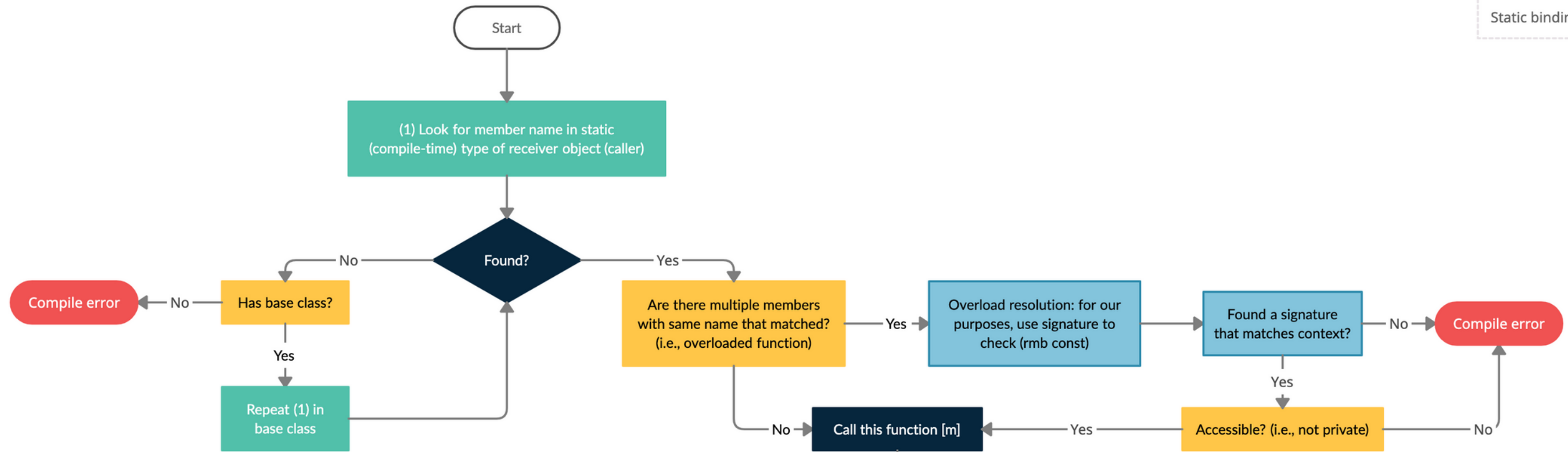
```
a_cow->eat();  
a_cow->eat(2);  
a_cow->moo();
```

```
h_cow->eat();  
h_cow->eat(2);
```

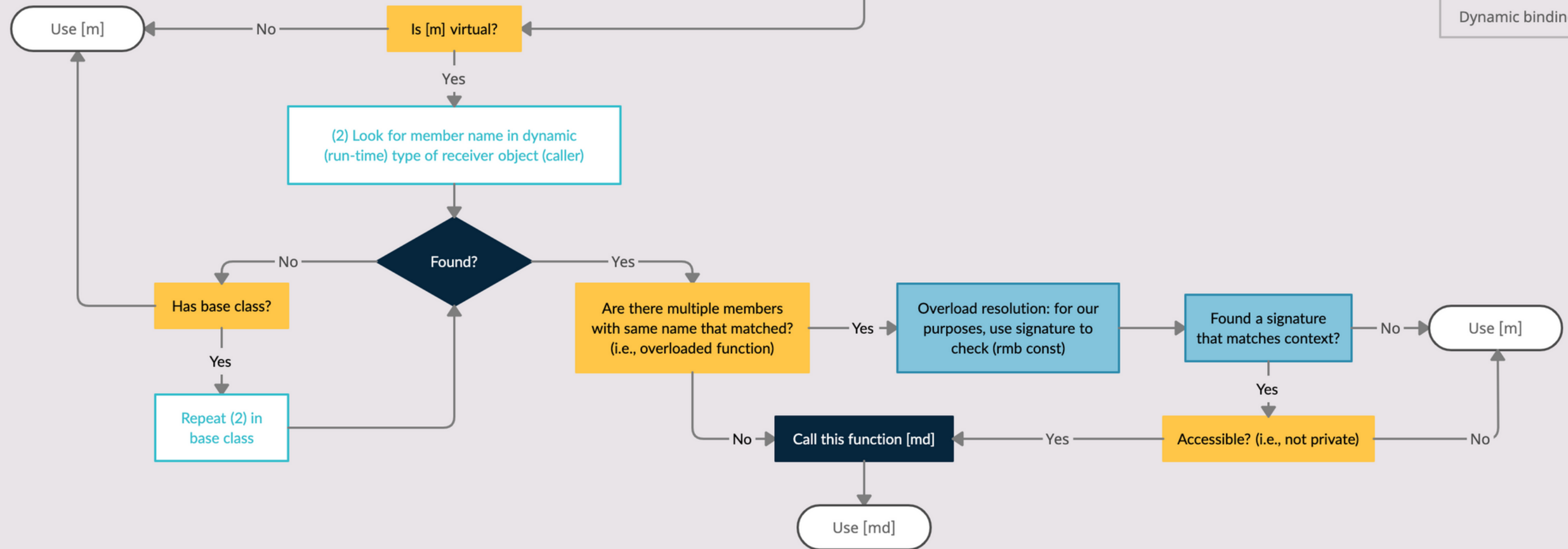
```
a_omnivore->eat();  
a_omnivore->eat(2);  
a_omnivore->sleep();
```

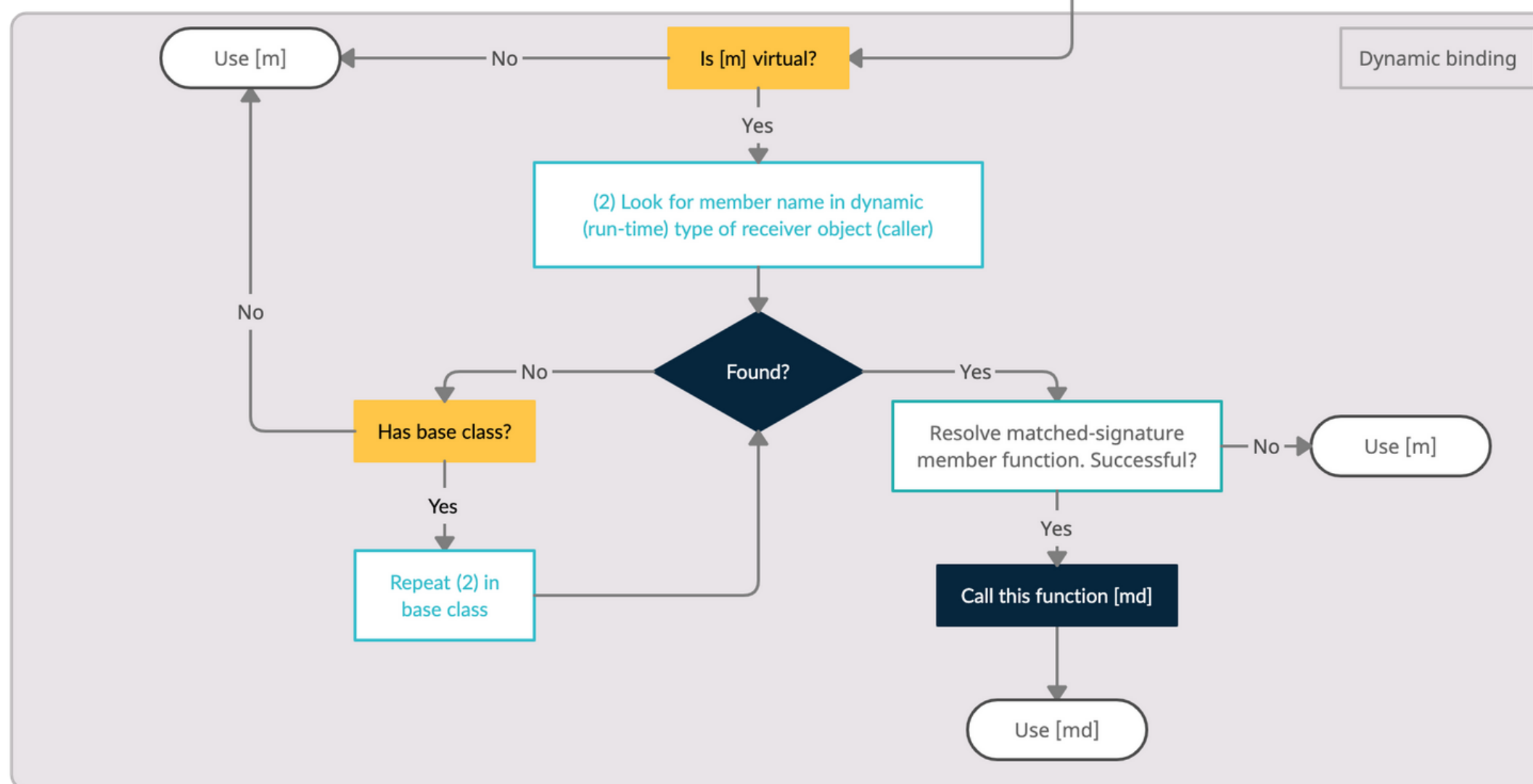
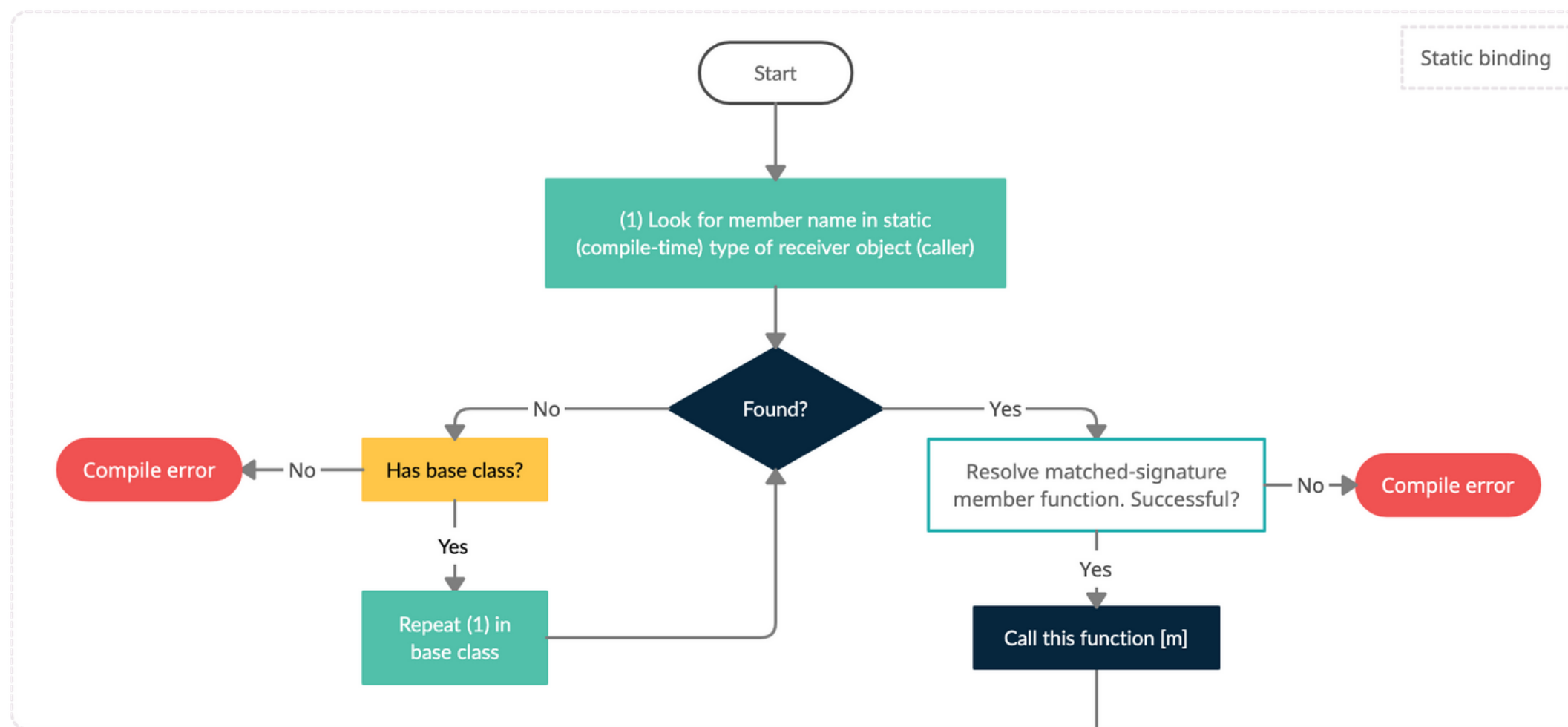


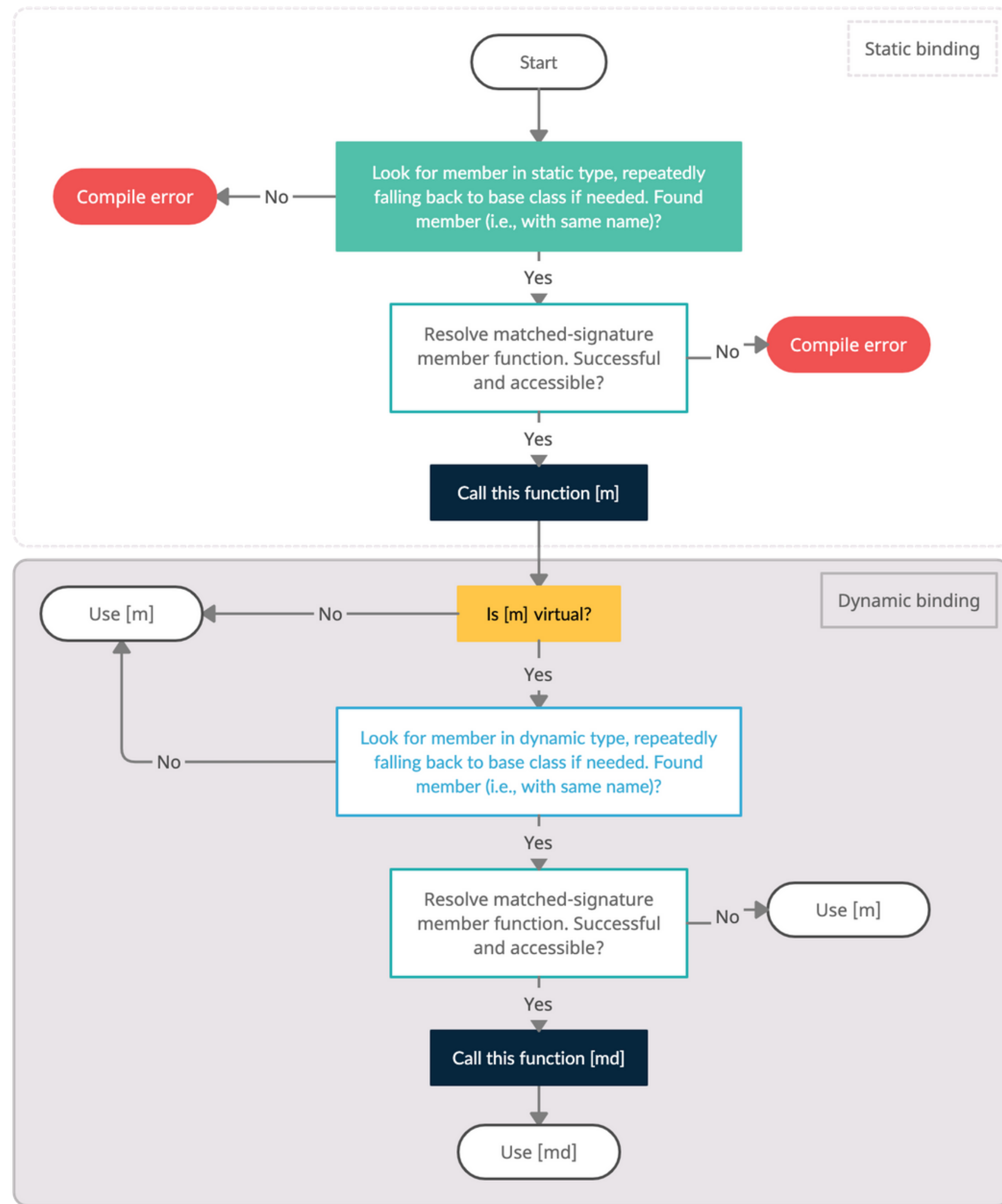
Static binding



Dynamic binding







```
Human human;  
Cow cow;  
Omnivore omnivore;
```

// No indirection

Animal a = human; *// object slicing!*

// Indirection

Omnivore *o_omnivore = &omnivore;

```
Animal *a_human = &human;  
Omnivore *o_human = &human;
```

```
Animal *a_cow = &cow;  
Herbivore *h_cow = &cow;
```

Animal *a_omnivore = &omnivore;

// Which method is called?

a.eat();

o_omnivore->eat();

```
a_human->sleep();  
a_human->eat();  
a_human->eat(2);  
a_human->play();
```

```
o_human->eat();  
o_human->eat(2);  
o_human->play();
```

```
a_cow->eat();  
a_cow->eat(2);  
a_cow->moo();
```

```
h_cow->eat();  
h_cow->eat(2);
```

```
a_omnivore->eat();  
a_omnivore->eat(2);  
a_omnivore->sleep();
```

