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16 Comments · Created 6 months ago



## How Much Your Objects Encapsulate?

Which line do you like more, the first or the second: What is the difference? The first class HTTP encapsulates a URL, while the second one expects it as an argument of method read(). Technically, both objects do exactly the same thin...

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**Oliver Doepner** · 4 months ago

You present a choice between

- 1) a service object that takes a URL as a method parameter and only uses it in that method
- 2) a more specialized object that remembers and encapsulates one URL and only operates on that particular URL

As so often, both options come with some trade-offs and we might choose one or the other based on our needs ("it depends").

If I read a lot of different URLs, maybe even based on user input, and have no other operations than read() then I would prefer 1).

If I want to model a URL to implement a more general Resource interface (for example with additional implementations FileResource and ClasspathResource, and maybe with other methods like exists()) and feed Resource objects into code that should not need to know where the physical resource location is, then I'd probably go with 2).

^ | v · Reply · Share ›



**Péter Böszörményi** · 6 months ago

I think the problem here is the HTTP name. What does exactly mean? The HTTP is a name of an application protocol. I'm not able to decide what does this class do, just seeing the name. Does it parse a HTTP message? Or send an HTTP request? Receive it? The name doesn't tell. I would prefer the HTTPRequest class. This clearly describe what does this class do. Something like this:

```
HTTPResponse response = HTTPRequest("...").get();
```

I think this line of code explain everything: tthe code send a HTTP GET request to the given url, and returns the response sent by the orther side.

4 ^ | v · Reply · Share ›



**Marcos Douglas Santos** · 6 months ago

Thinking better, why you said it represents the Universe? It represents a Webpage, in your example.

As you said in another post, every object needs to represent a real-life entity and a Webpage is a true object. The Universe could be a true object too if your program make assumptions about planets, stars, comets, etc.

Every object represents a real-life entity.

^ | v · Reply · Share ›



**Yegor Bugayenko** author → Marcos Douglas Santos · 6 months ago

The first class HTTP in my example above represents a web page, since it encapsulates its coordinates. The second class HTTP represents the Universe, since it doesn't encapsulate any coordinates of any real-life entity. There is only one entity in real-life that doesn't have any coordinates - it's the life itself, the Universe :)

^ | v · Reply · Share ›



**Marcos Douglas Santos** → Yegor Bugayenko · 6 months ago

IMHO, the second HTTP class not represents an especific web page but a "mechanism" or protocol to find and read a web page; this mechanism is a real-life entity.

So, the first HTTP class maybe should be called WebPage and the second should be called HTTP or Web. :)

^ | v · Reply · Share ›



**Andrej Istomin** · 6 months ago

Excuse me, probably I didn't catch an idea in example how [HTTP.online\(\)](#) works. "check whether we're online" - who "we"? Which URL will be checked? Could you explain, please?

^ | v · Reply · Share ›



**Yegor Bugayenko** author → Andrej Istomin · 6 months ago

This method will check whether the entity represented by an instance of class HTTP

is online. What is that entity? It's the entire Universe. So, the method will check whether the "universe" (the Internet) is online. In other words, it will try check whether we're connected to Internet or not. Simply put, it will try to ping [google.com](http://google.com) and if it's online - we're online.

^ | v · Reply · Share ›



**Andrej Istomin** → Yegor Bugayenko · 6 months ago

Ah, now I see. Thank you for explanation. Not sure, but probably class name 'Internet' and method name 'connected' would be better name in this case?

1 ^ | v · Reply · Share ›



**Yegor Bugayenko** author → Andrej Istomin · 6 months ago

Yes, "Internet" or "Web" or anything like this. I'm using "HTTP" in order to compare it with another HTTP that is representing a specific web page.

^ | v · Reply · Share ›



**valenterry** · 6 months ago

Mostly, there are at least two universes - the test universe shall not be forgotten.

An empty HTTP() should rather be called WebsiteReader(). Yes, I know, you don't like it to be named readER. ;)

It then should accept arguments for choosing how to connect/read, like for example a proxy configuration. -> WebsiteReader(configuration)

myWebsiteReaderFactory.createDefaultWebsiteReader() -> gives us a default WebsiteReader that uses system configuration to connect and read.

Then you could make it even so that it does not read websites itself (therefore also change its name), but rather creates specific "HTTP"s for us. But I would rather like to call them webpages, because that's what they are right? HTTP is a protocol. I don't wanna create a new protocol, so:

```
myWebsiteReader = myWebsiteReaderFactory.createDefaultWebsiteReader()
Webpage someWebpage = myWebsiteReader.fetchWebpage(new URL("http://www..."))
println( "Content of "+ someWebpage.url + " is "+ someWebpage.content )
```

What do you think about that approach?

^ | v · Reply · Share ›



**Yegor Bugayenko** author → valenterry · 6 months ago

I don't like the name "reader" at all. It breaks the entire concept of object oriented programming. Take a look at this article: <http://www.yegor256.com/2014/1...> If you rename your class from WebsiteReader to HTTP, you will get exactly the same as we have above, in the article. Besides that, I don't like "factory" name either. It is also against the idea of OOP. If you try to rename it to something more meaningful, you will see that it's almost impossible. What could it be? HTTPs? So, I'm against reader and factories :)

^ | v · Reply · Share ›



**Marcos Douglas Santos** → Yegor Bugayenko · 6 months ago



**marcos douglas santos** · yegor bugayenko · 6 months ago

I agree with everything except the name of the class be HTTP. Following your example, the better name would be just Web.

^ | v · Reply · Share ›



**Yegor Bugayenko** author → Marcos Douglas Santos · 6 months ago

Yep, "Web" would be a better name, I agree.

1 ^ | v · Reply · Share ›



**Marcos Douglas Santos** → Yegor Bugayenko · 6 months ago

So, I gained "15 minutes"? :)

^ | v · Reply · Share ›



**Yegor Bugayenko** author → Marcos Douglas Santos · 6 months ago

Yes, if you got the idea right :)

^ | v · Reply · Share ›



**Marcos Douglas Santos** → Yegor Bugayenko · 6 months ago

I'm just participating, was a kidding. :)

But yes, I liked what I read about XDSD and who knows I can work in [Teamed in](#) in the future :)

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