









# Let's try that again...

**“A Lens targets a specific part of a complex object to either GET or SET a value”**

ie. it's a function - or more  
precisely 2 functions!

`Extract: (HttpMessage) -> X`

`Inject: (X, HttpMessage) -> HttpMessage`

# Lens example 1/3

- http4k provides a Lens implementation which targets our domain: HTTP messages.
- Violations result in an HTTP 400 (Bad Request).

```
val btcPath = Path.int().of("btc")
```

```
val miner: HttpHandler = CatchLensFailure.then(  
  routes(  
    "/mine/{btc}" bind POST to { r: Request ->  
      val newTotal: Int = btcPath.extract(r) + 1  
      val out = "You have $newTotal BTC"  
      val json = """"{ "value": "$out"}""""  
      Response(OK).body(json)  
    }  
  ))
```