

Using HttpClient



Sander Mak

FELLOW & SOFTWARE ARCHITECT

@Sander_Mak

HttpClient Configuration



Configuration affects all requests

Create multiple instances when necessary

HTTP Version

```
HttpClient.newBuilder()  
    .version(Version.HTTP_2)
```

```
HttpClient.Version.HTTP_1_1
```

```
HttpClient.Version.HTTP_2
```

Priority

```
HttpClient.newBuilder()  
    .priority(1)
```

Only affects HTTP/2 requests

Range 1-256 (inclusive)

Redirection

```
HttpClient.newBuilder()  
    .followRedirects(Redirect.NORMAL)
```

HttpClient.Redirect.NEVER

HttpClient.Redirect.ALWAYS

HttpClient.Redirect.NORMAL

HttpResponse::previousResponse

Optional<HttpResponse>

HttpResponse::request

HttpRequest

Default Connection Timeout

```
HttpClient.newBuilder()  
    .connectTimeout(Duration.ofSeconds(3))
```

java.time.Duration

Don't confuse with request timeout!

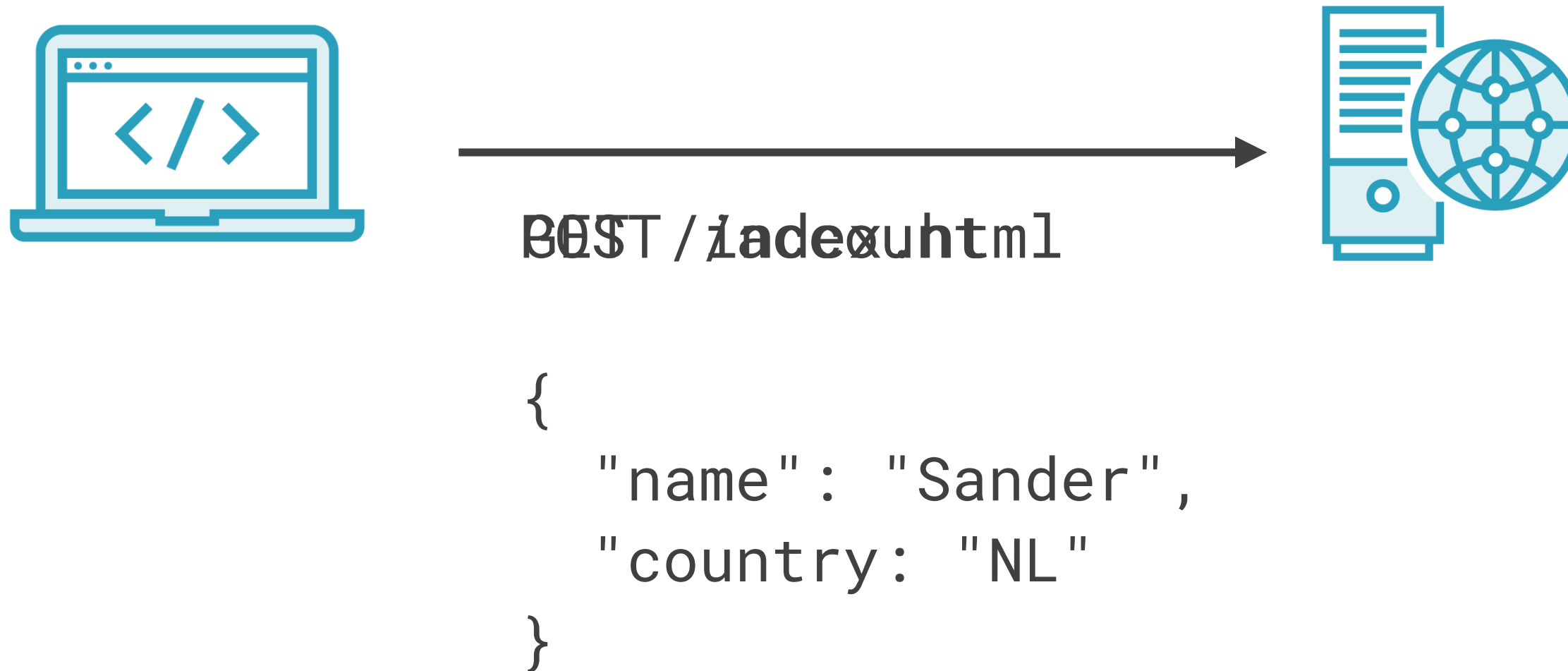
Custom Executor

```
Executor exec = Executors.newCachedThreadPool();  
  
HttpClient.newBuilder()  
    .executor(exec)
```

Demo

Robust HttpClient Configuration

HTTP Requests with Body



BodyPublisher

HttpRequest.Builder

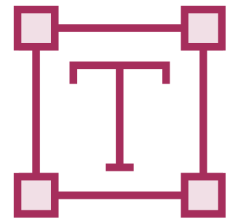
`POST(BodyPublisher publisher)`

`PUT(BodyPublisher publisher)`

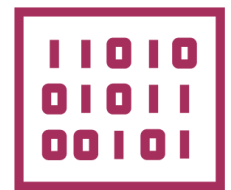
`method(String method, BodyPublisher publisher)`



Pre-defined BodyPublishers



`ofString(String body)`



`ofByteArray(byte[] buf)`



`ofFile(Path p)`



`ofInputStream(Supplier<? extends InputStream> s)`

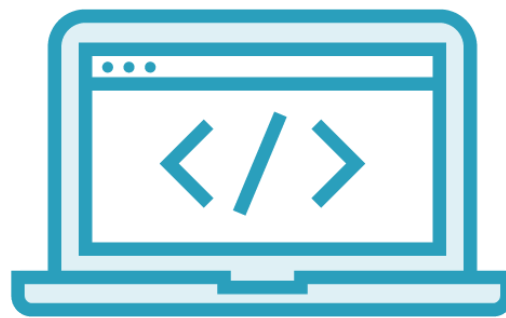


`noBody()`

Request with Body

```
HttpRequest.newBuilder(URI.create("..."))  
    .POST(BodyPublishers.ofString("payload"))  
    .build()
```

Headers & Cookies



`GET /index.html`

`Host: www.pluralsight.com`

`Accept: text/html`

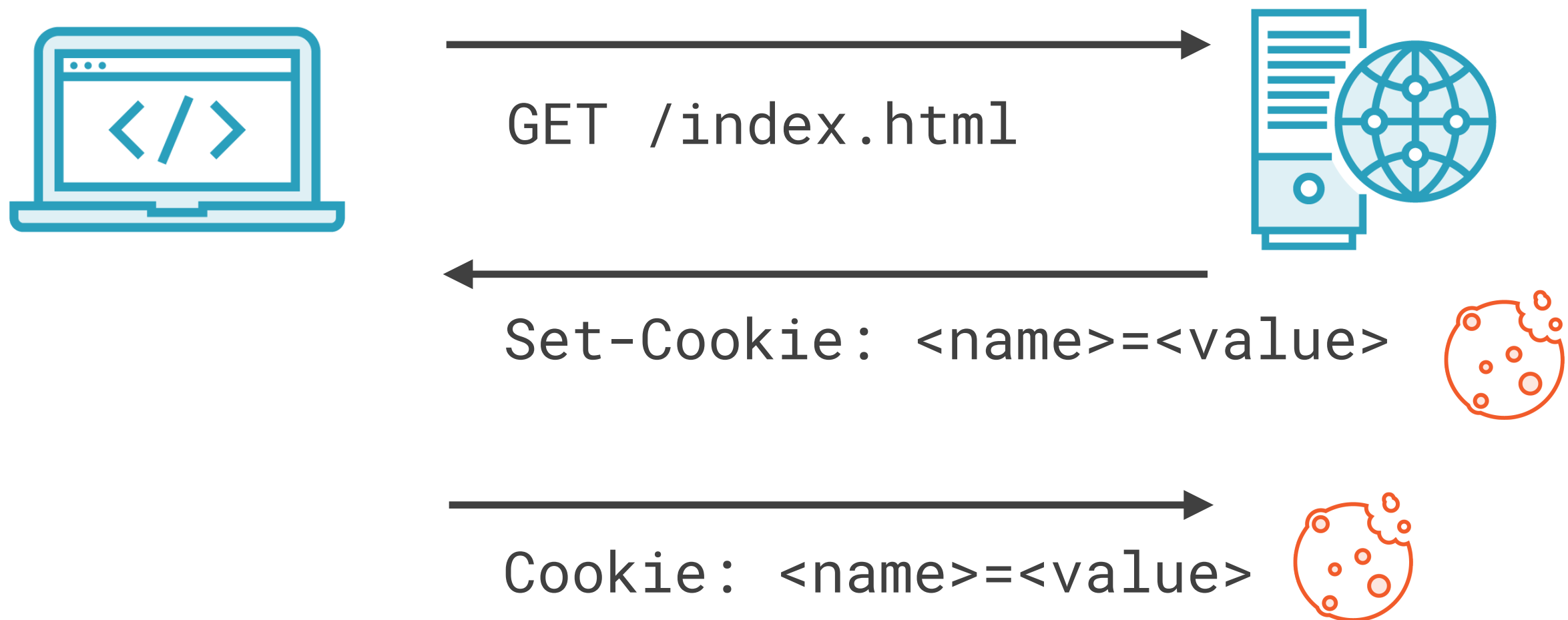


Headers

```
HttpRequest.newBuilder(URI.create("..."))  
    .headers("Accept", "text/html"  
            "User-Agent", "Java")  
    .build()
```

setHeader(String name, String value)

Cookies



CookieHandler

```
HttpClient.Builder::setCookieHandler(CookieHandler handler)
```

```
HttpClient.newBuilder()  
    .cookieHandler(  
        new CookieManager(null,  
            CookiePolicy.ACCEPT_ALL)  
    )  
    .build()
```


Demo

HttpClient & Cookies

jshe11



What's New in Java 9

CookieManager

implements

CookieHandler

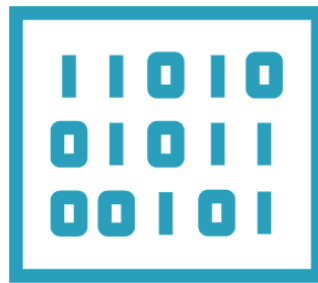
CookieStore

Default in-memory
implementation

Summary



HttpClient configuration



BodyPublishers



Headers & Cookies