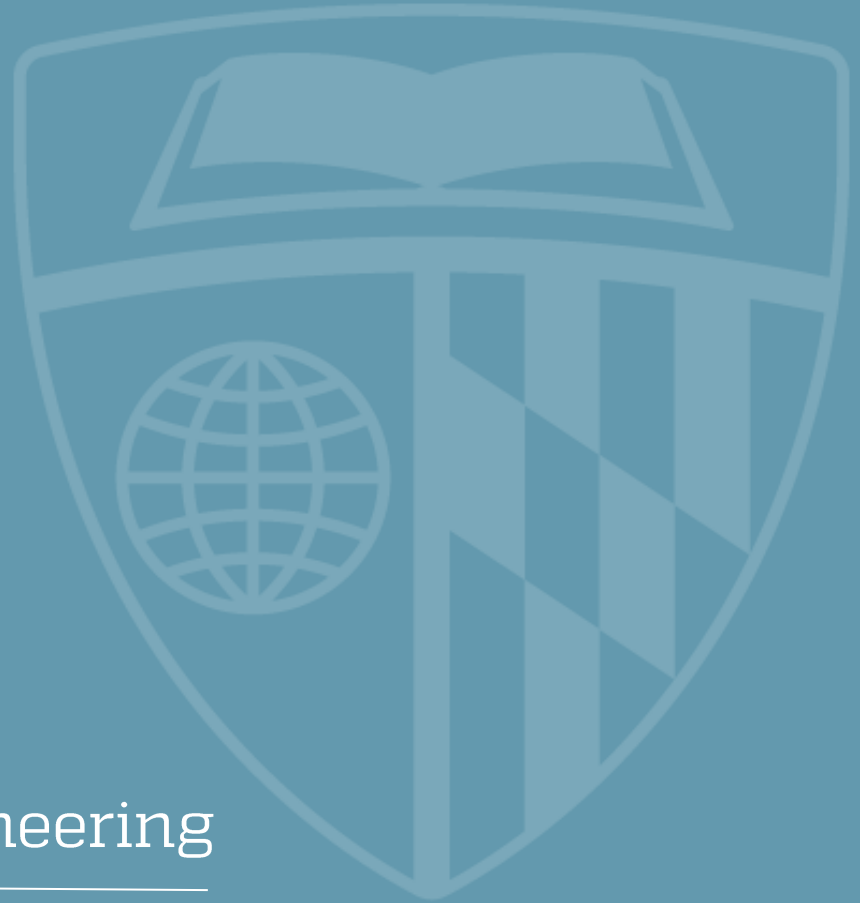




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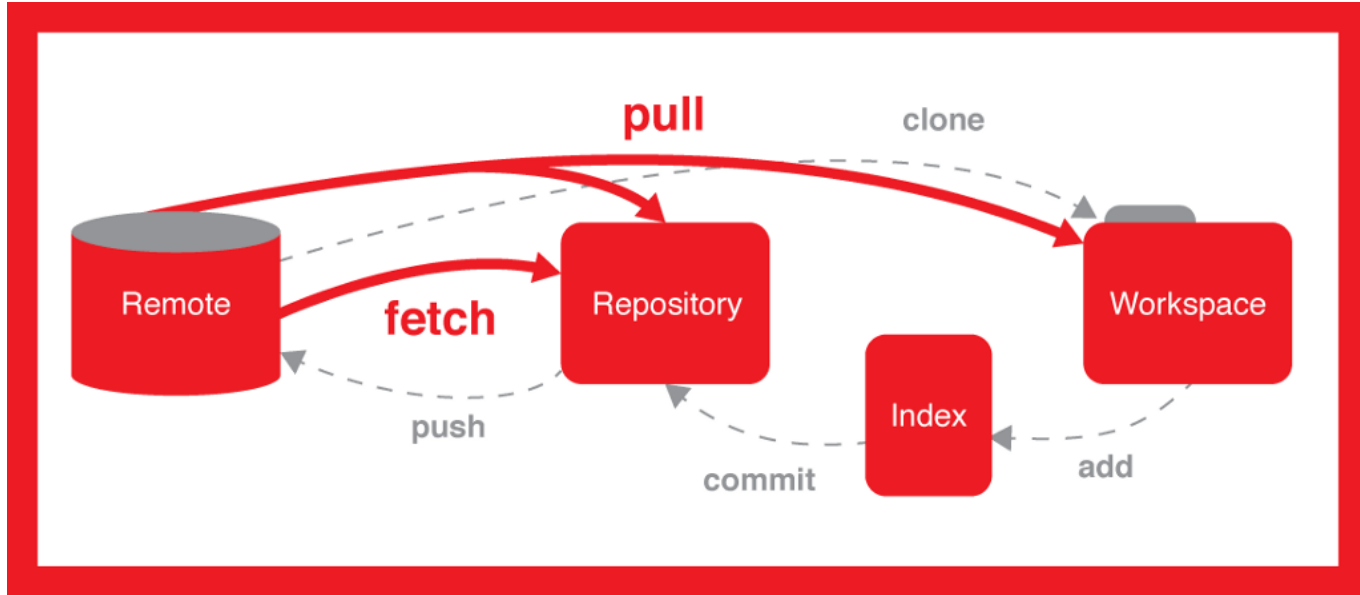
EN.601.421 / EN.601.621

Object Oriented Software Engineering



Git

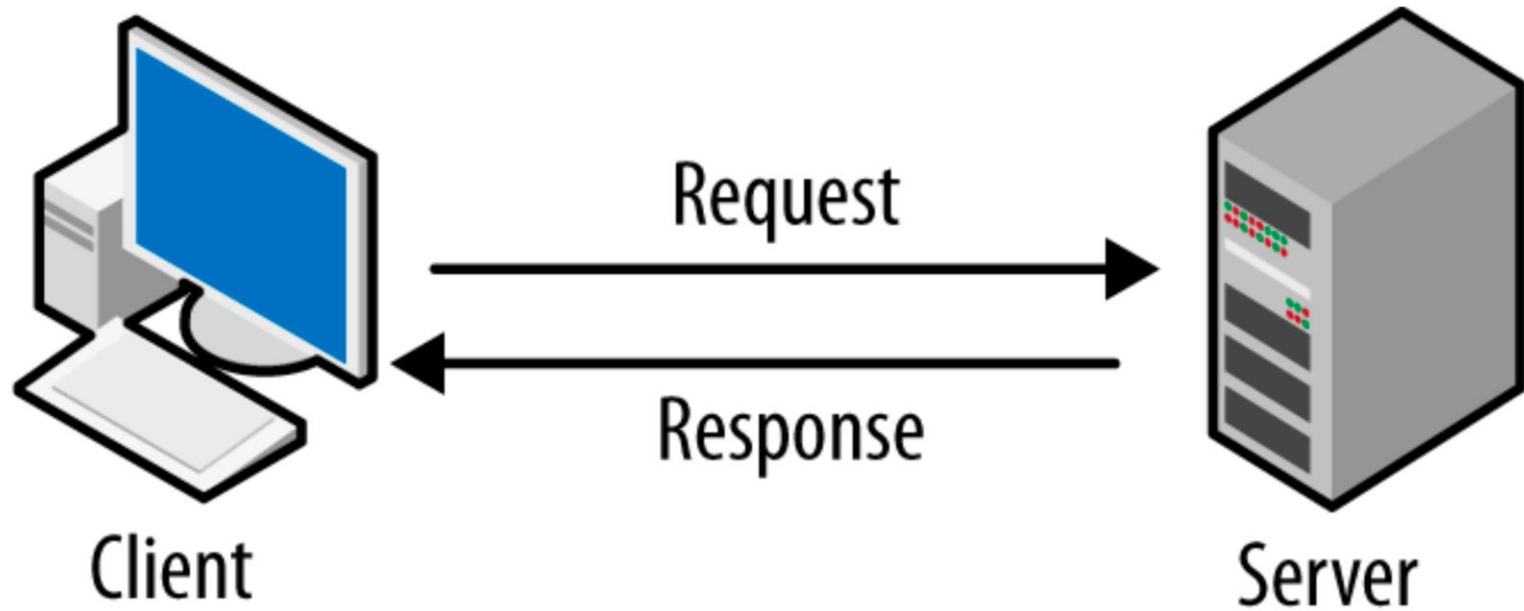
- ▶ Git is Version Control System, or VCS, that allows you to save a snapshot (i.e., copy) of your project code at any time you want.



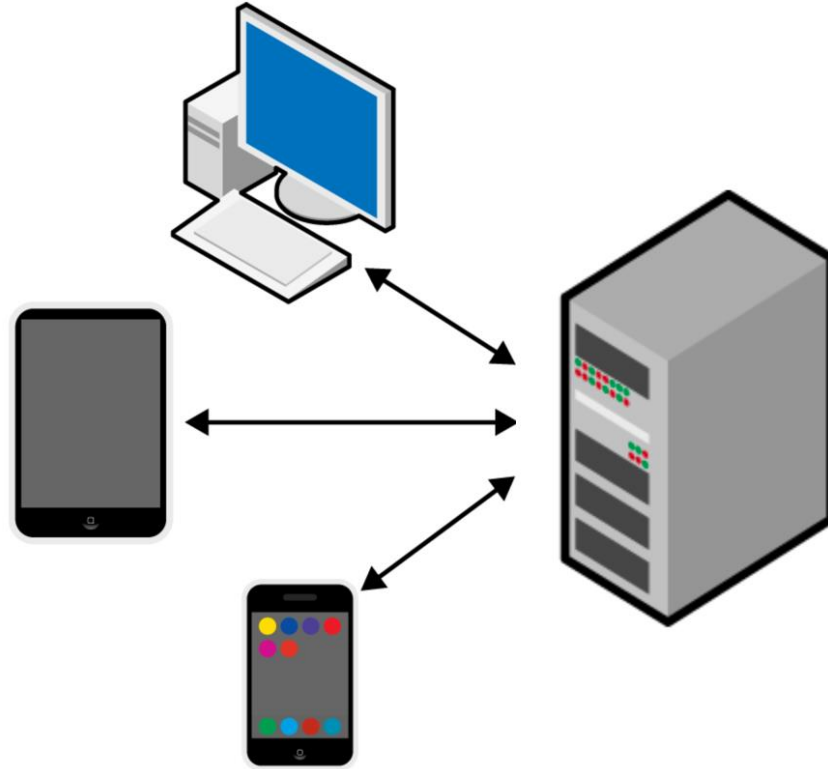
Github

- ▶ A cloud-based platform that hosts Git repositories and facilitates team collaboration:
 - ❖ “**Repository**” for source code management
 - ❖ “**Project Board**” for project management
 - ❖ “**Github Actions**” for Automation

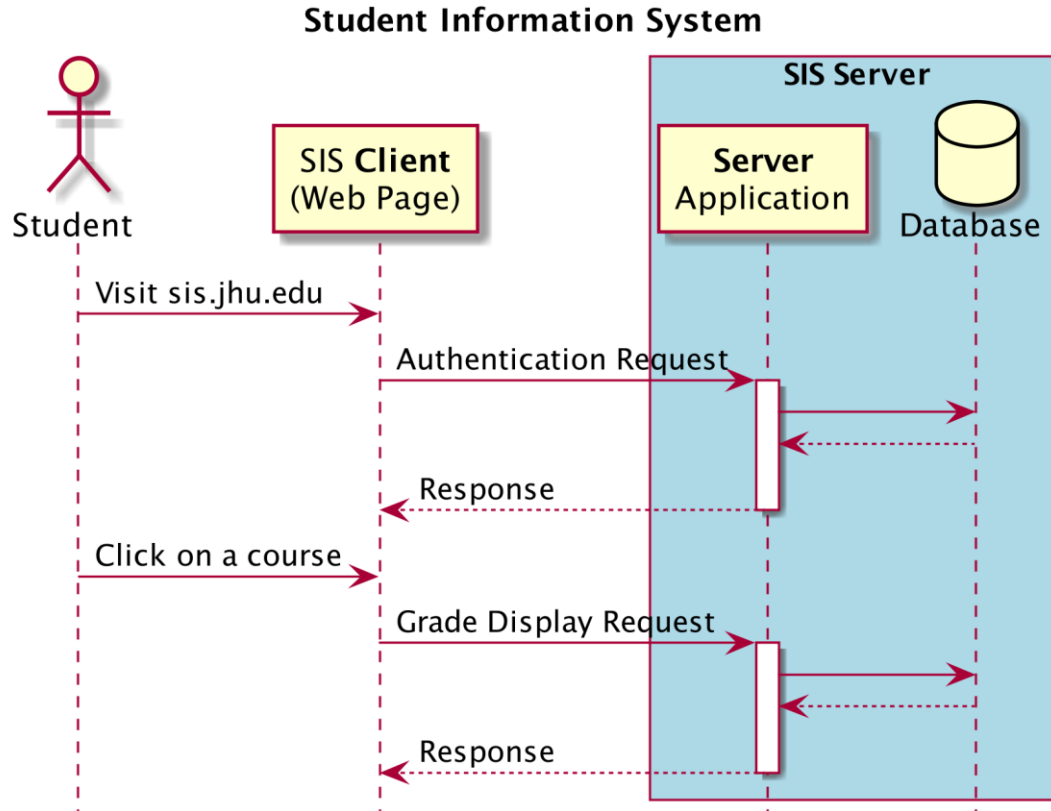
Client-Server Architecture



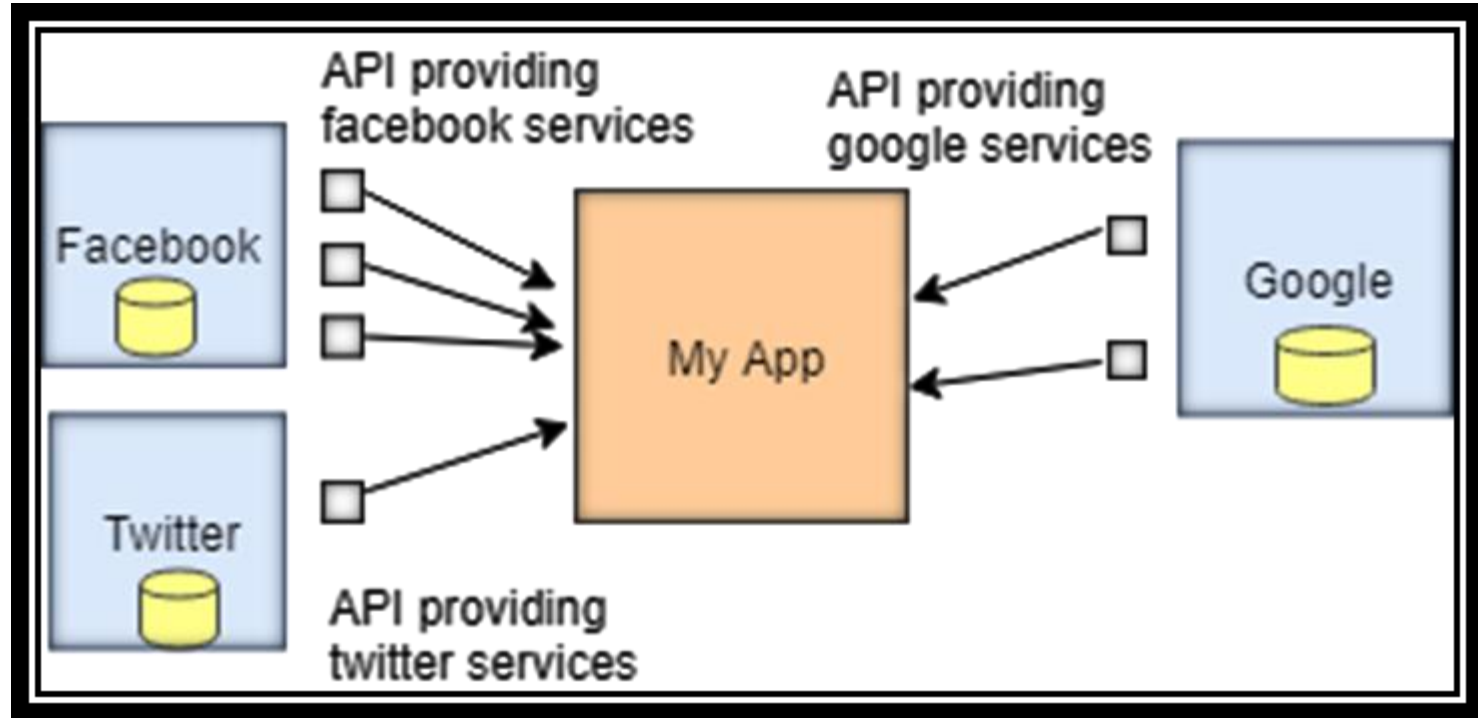
Client-Server Architecture



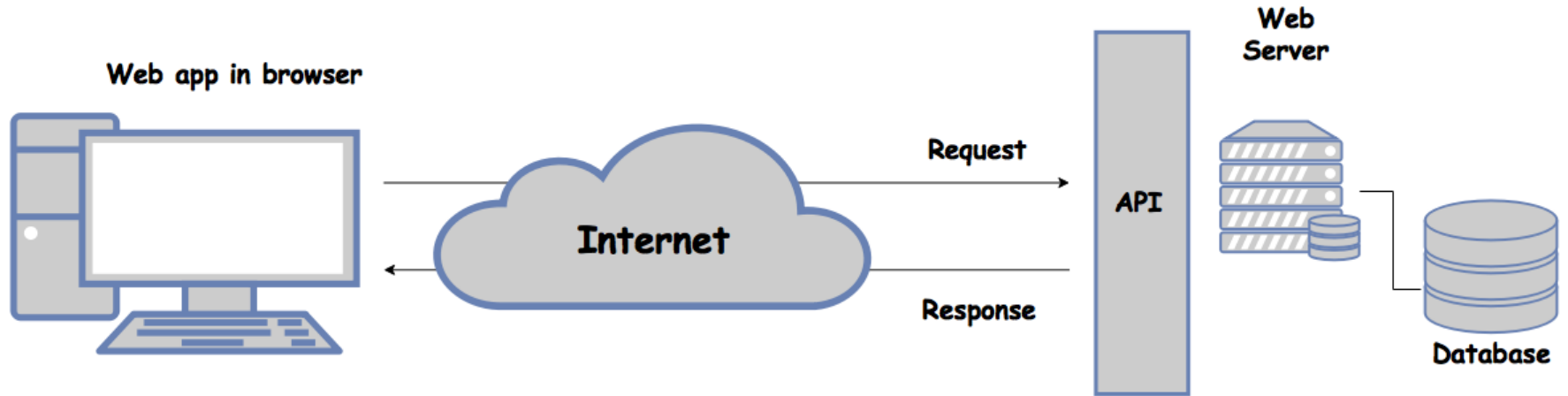
Client-Server Example



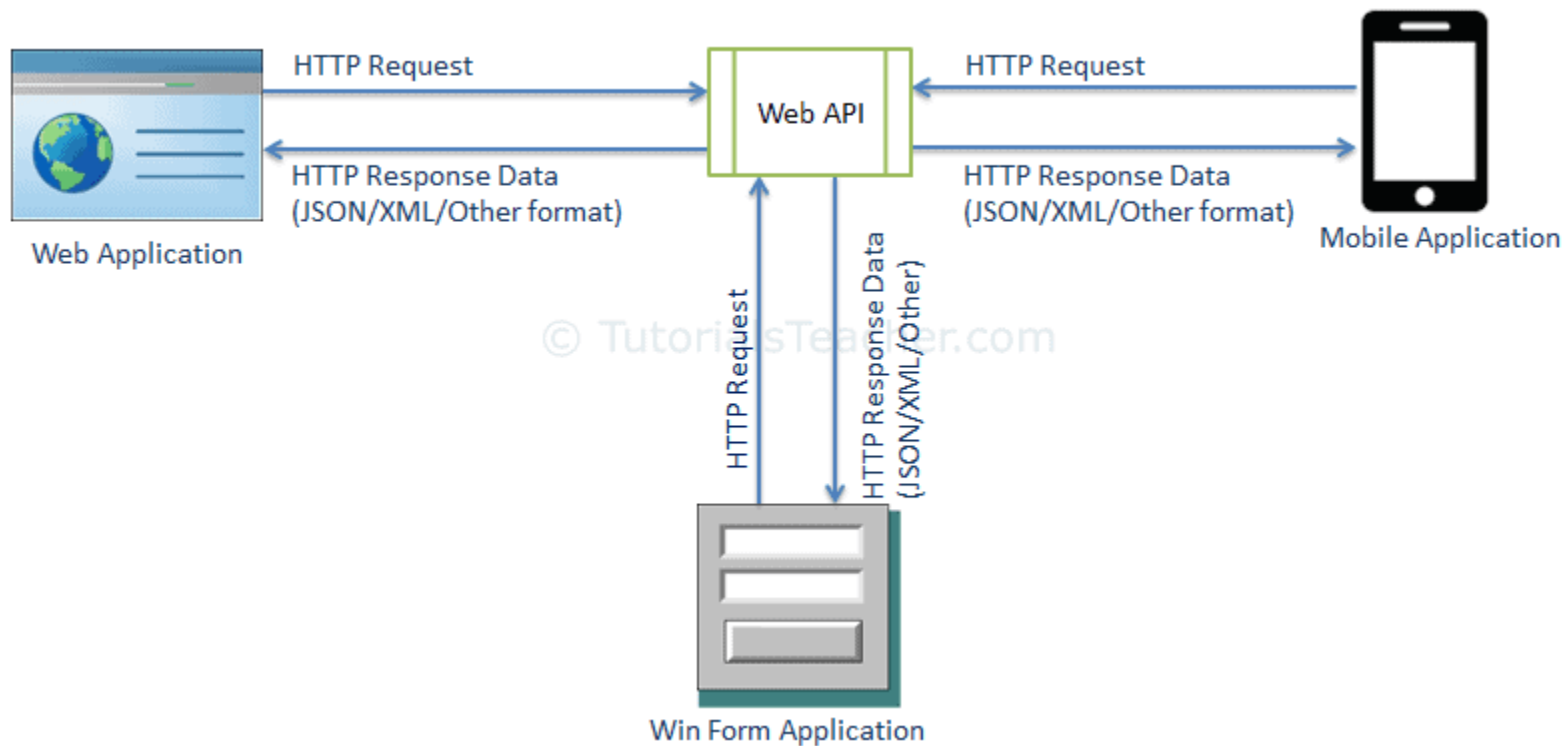
Application Programming Interface (API)



Web API



Web API



HTTP & CRUD

► Hyper-Text Transfer Protocol (HTTP)

Requests

```
POST / HTTP/1.1
Host: localhost:8000
User-Agent: Mozilla/5.0 (Macintosh;... )... Firefox/51.0
Accept: text/html,application/xhtml+xml,..., */*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Upgrade-Insecure-Requests: 1
Content-Type: multipart/form-data; boundary=-12656974
Content-Length: 345
```

```
-12656974
(more data)
```

Responses

```
HTTP/1.1 403 Forbidden
Server: Apache
Content-Type: text/html; charset=iso-8859-1
Date: Wed, 10 Aug 2016 09:23:25 GMT
Keep-Alive: timeout=5, max=1000
Connection: Keep-Alive
Age: 3464
Date: Wed, 10 Aug 2016 09:46:25 GMT
X-Cache-Info: caching
Content-Length: 220
```

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML
2.0//EN">
(more data)
```

start-
line

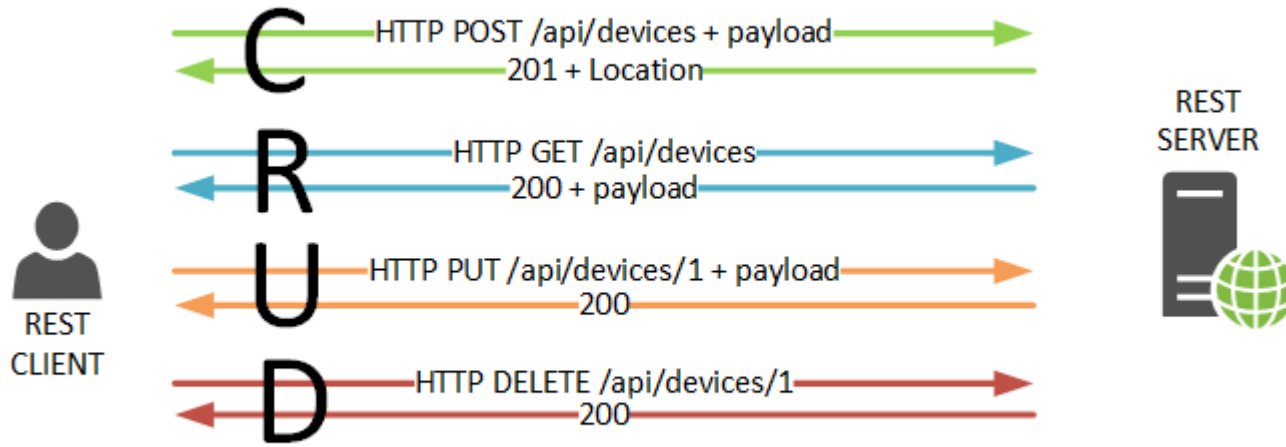
HTTP
headers

empty
line

body

RESTful API

- ▶ Representational State Transfer (REST) architectural style
 - ❖ No session information is retained in the server





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