Hey!

Agenda

- Why APIs?
- What do they do?
- We create simple API together
- Talk about it
- We create better API together

Goals for the week

- Have a working local API
- Basic understanding of APIs
- Connecting with a database

Todo outside of class

- Decide what API you'll build
- Design your API
- Decide what type of database you'll use
- Start building

Agenda

- The HTTP verbs
- The HTTP status codes! 
- Headers
- Let's build a "complete" API
- Routes 

Gotta get that…
Gotta get that boom boom pow


- ♪♪ Boom boom boom ♪♪
- ♪♪ Gotta get that ♪♪

POST Malone

POST Malone

PUT

PATCH

DELETE


TRASH ONLY

Verbs

- Stuff **we** say
- Please GET this for me.
- Oh, I need to apply a small PATCH to that order before it goes through.
- Could we maybe DELETE that draft? I didn’t like it

URI/URL

- **U**niform **R**esource **I**dentifier / **U**niform **R**esource **L**ocator
- They say so much
  - Scheme
  - Authority
  - Path
  - Query
  - Fragment

Status Codes

- This is what we **get back**
- Did everything go OK?
- Was the song I searched for NOT FOUND?
- Are we talking with A TEAPOT?

```
POST http://localhost:8080/malone
content-type: application/json

{
    "title": "c"
}
```

Request line

Head

Body

WHAT IS THIS?

WHAT IS THIS?
An art project?

WHAT IS THIS?
An art project?
No… It’s a head

```
POST http://localhost:8080/malone
content-type: application/json

{
    "title": "c"
}
```

Request line

Head

Body

```
POST http://localhost:8080/malone
content-type: application/json
Accept-Language: swl

{
    "title": "c"
}
```

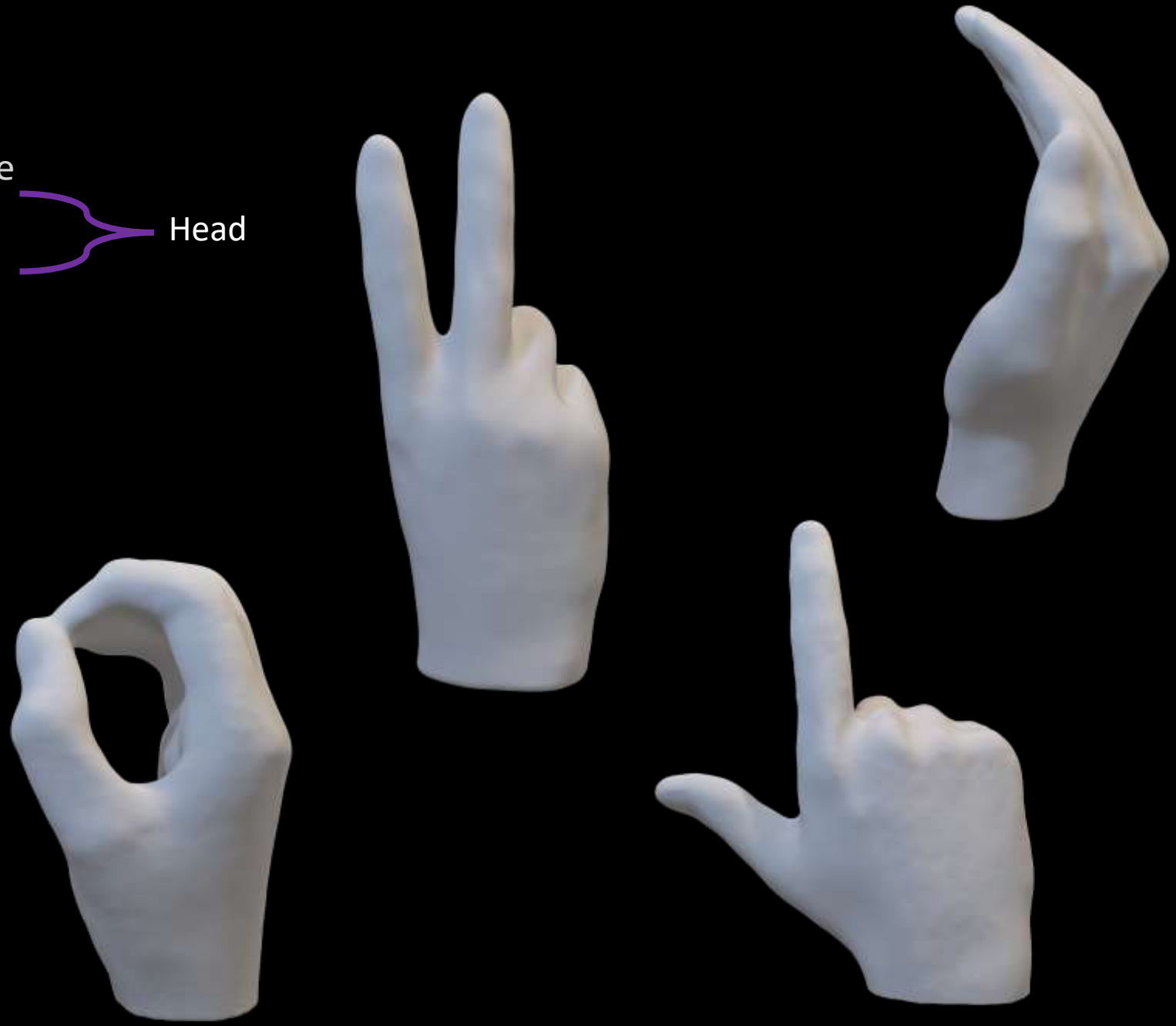
Head

```
POST http://localhost:8080/malone
content-type: application/json
Accept-Language: sv

{
    "title": "c"
}
```

Head

```
POST http://localhost:8080/malone
content-type: application/json
Accept-Language: swl

{
    "title": "c"
}
```

Head



How do you know so much?

(it's the internet)

RFC

RFC 2616 — Hypertext Transfer Protocol

Let’s build an API!

Thanks for today!

Day 2

- Designing a good API
- Storage
- Experiments!

To store or not to store…

- Memory
- In a file
- Database (many different types)

Let’s experiment a little!

Day 3

- Time to dive into databases!
  - Relational
  - NoSQL
  - Document
  - Vector
- Mongo DB

Relations

Documents

Rows

Key-value

Graph

Vector

What do you speak?

SQL

Structured Query Language

Gremlin

JSON


MongoDB®

What are you going to build?