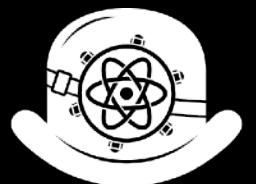


# Type-Safe URL State in React with

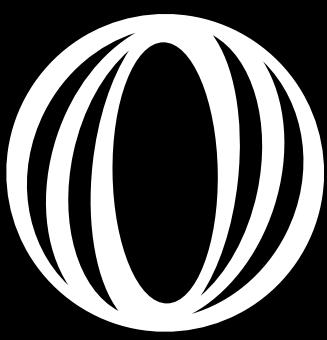
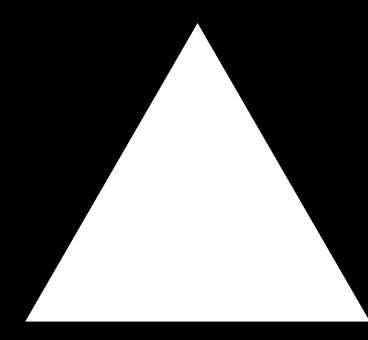
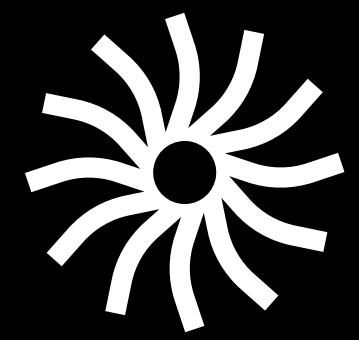
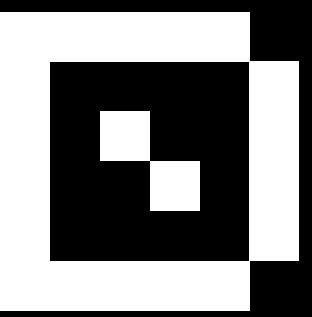
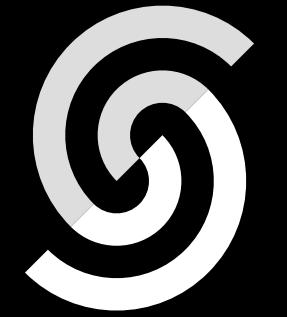
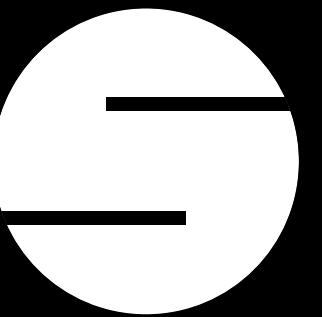
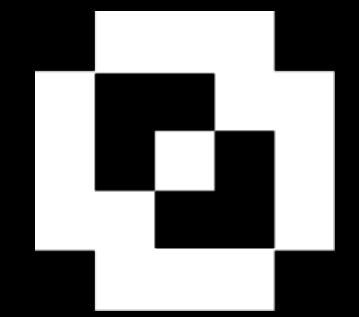
?n=u&q=s



François Best  
[@francoisbest.com](http://francoisbest.com)

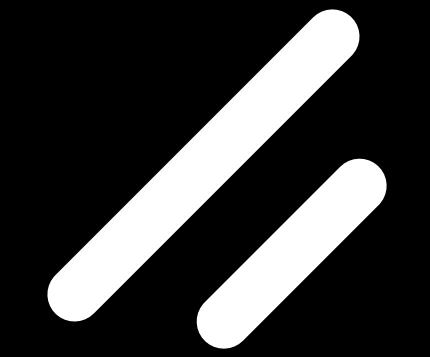


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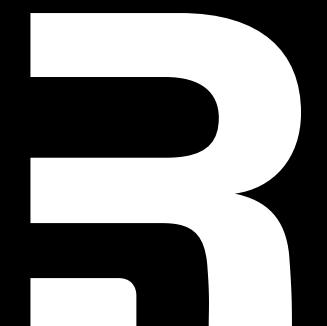
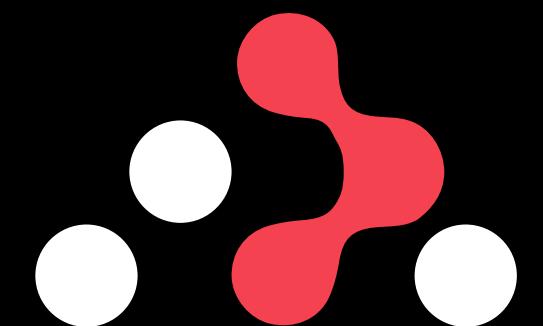
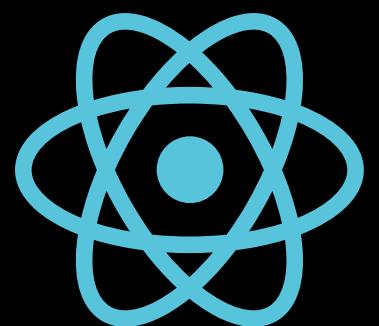


Cal

?n=u&q=s

Type-Safe  
Search Params  
State Manager  
For React

# Make URL State Enjoyable



# URL State 101

/events?q=React+Advanced&city=London

Search Params

Query string

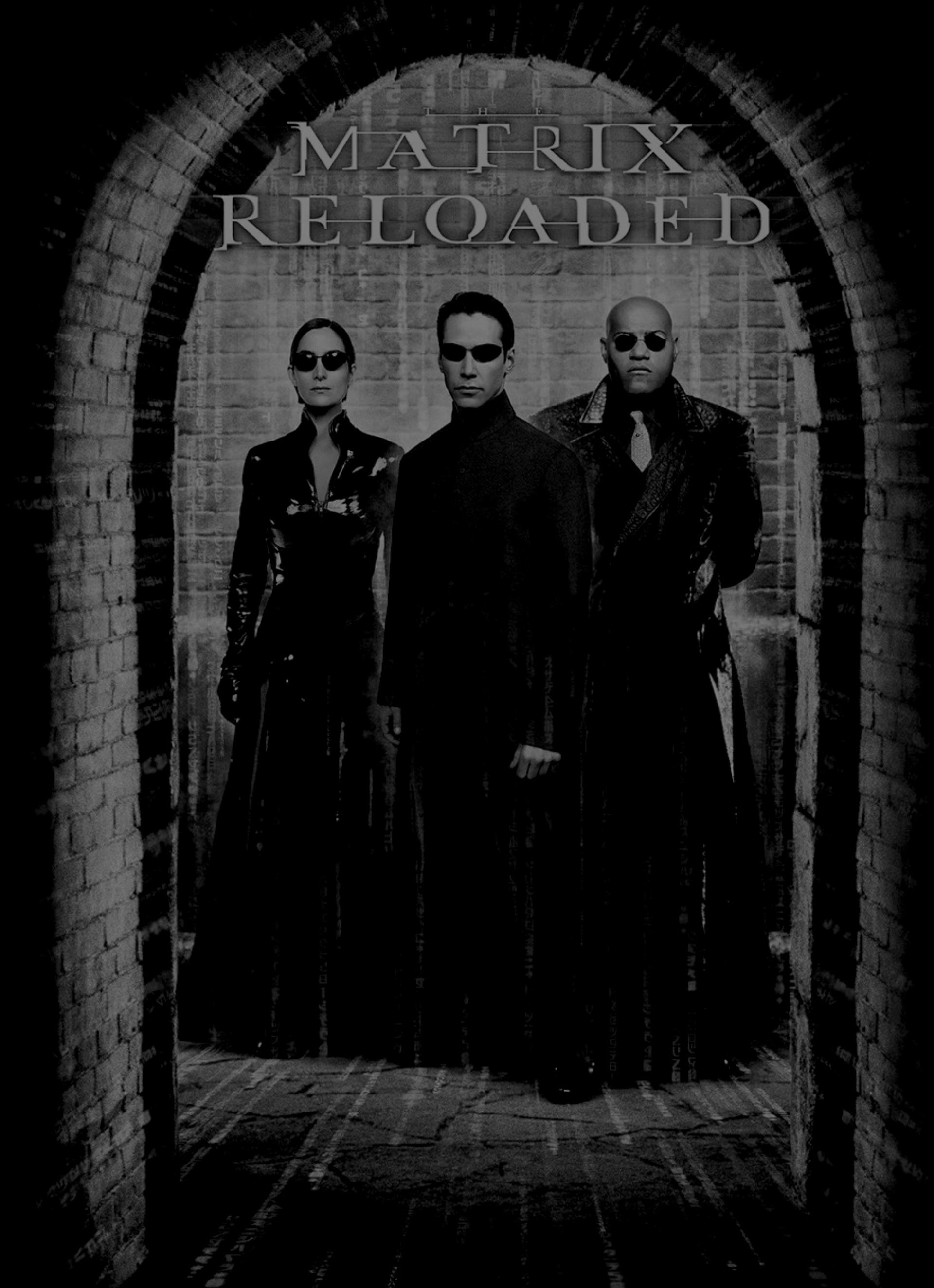
# Why URL State?

# Reload resilience

Side-effect

localStorage

The Matrix Reloaded, 2003  
The Wachowskis



# Superpowers



# Teleportation

Sharing

Deep linking

Stargate, 1994  
Roland Emmerich

# Time Travel

Bookmarking

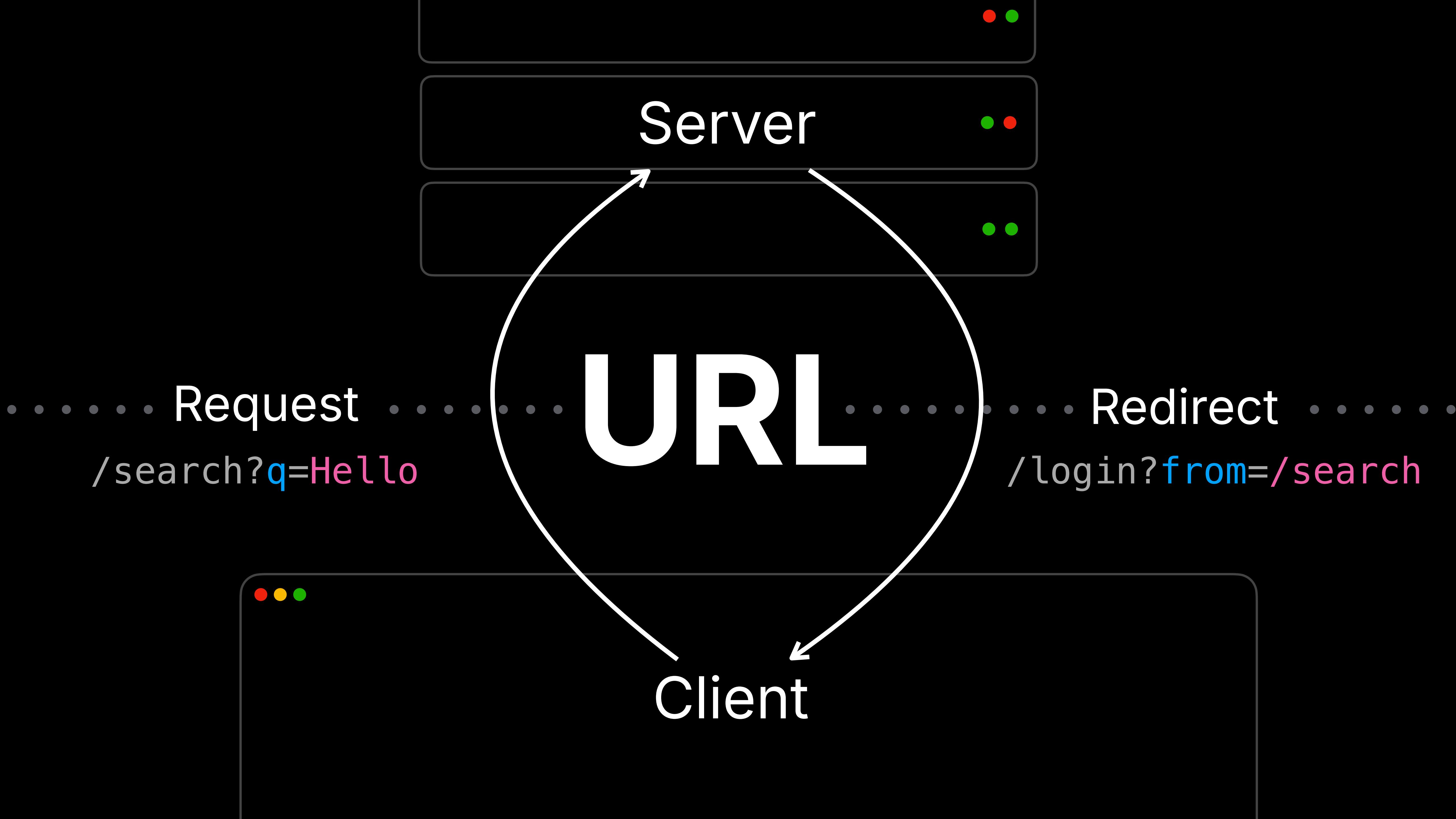
History navigation

Back / Forward

Undo / Redo

Back To The Future, 1985  
Robert Zemeckis





# Drawbacks

- Size limits

Server: 8 kB

Transport: 2-4 kB

Humans: Much less

[https://example.com/path?  
tableState=%7B%22pagination%22%3A%7B%22pageIndex%22%3A1%2C%22pageSize%22%3A50%7D%2C%22filters%22%3A%5B%7B%22id%22%3A%22genre%22%2C%22value%22%3A%22fantasy%22%7D%5D%2C%22orderBy%22%3A%7B%22id%22%3A%22releaseYear%22%2C%22desc%22%3Afalse%7D%7D  
&search=The%20Lord%20of%20the%20Rings](https://example.com/path?tableState=%7B%22pagination%22%3A%7B%22pageIndex%22%3A1%2C%22pageSize%22%3A50%7D%2C%22filters%22%3A%5B%7B%22id%22%3A%22genre%22%2C%22value%22%3A%22fantasy%22%7D%5D%2C%22orderBy%22%3A%7B%22id%22%3A%22releaseYear%22%2C%22desc%22%3Afalse%7D%7D&search=The%20Lord%20of%20the%20Rings)

[https://example.com/path?  
filters=genre:fantasy&sort=releaseYear:asc&page=1  
&size=50&search=The+Lord+of+the+Rings](https://example.com/path?filters=genre:fantasy&sort=releaseYear:asc&page=1&size=50&search=The+Lord+of+the+Rings)

The URL is the first UI  
your users will see

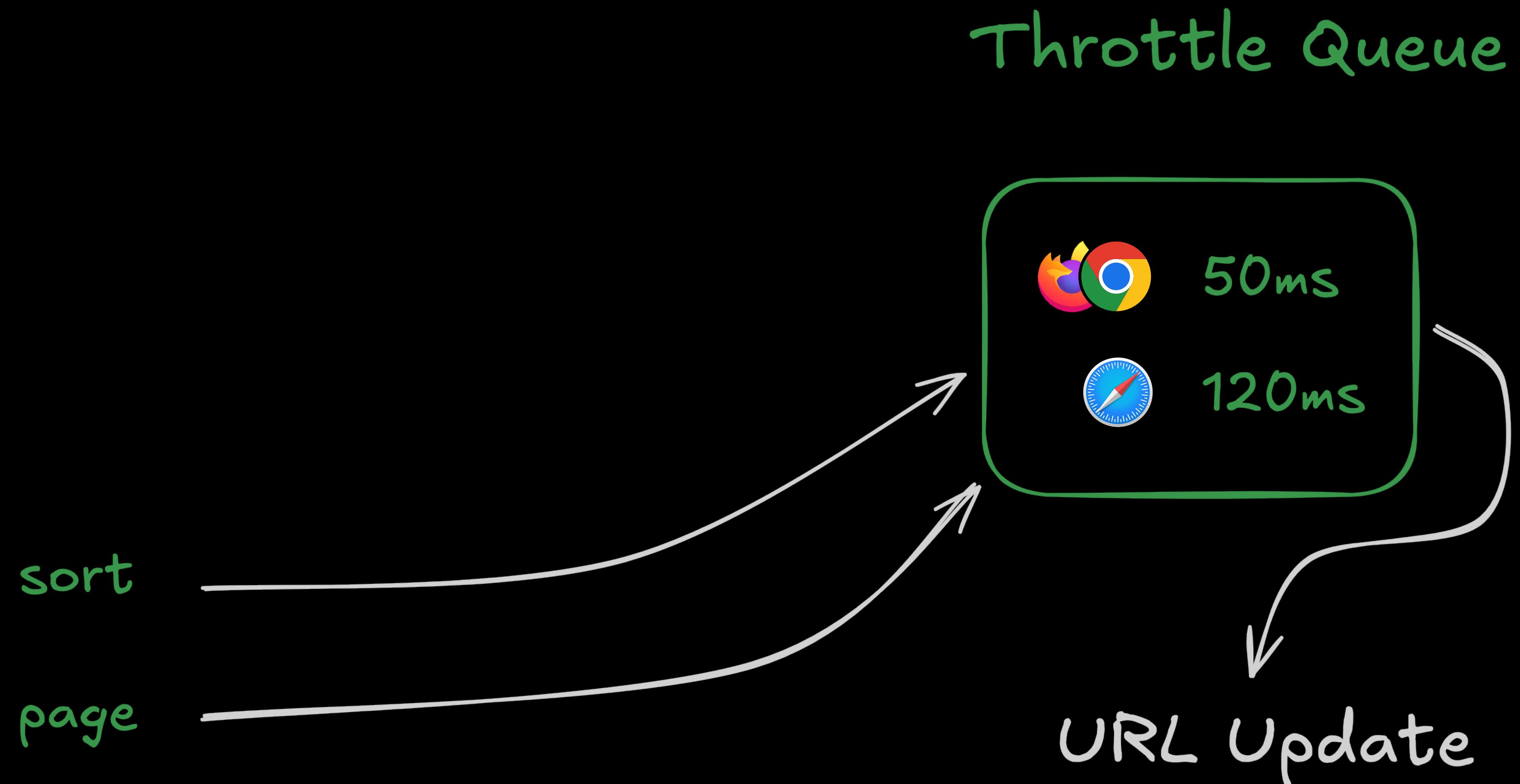
- Size limits
- Immutability & migrations

**“Cool URIs don't change”**

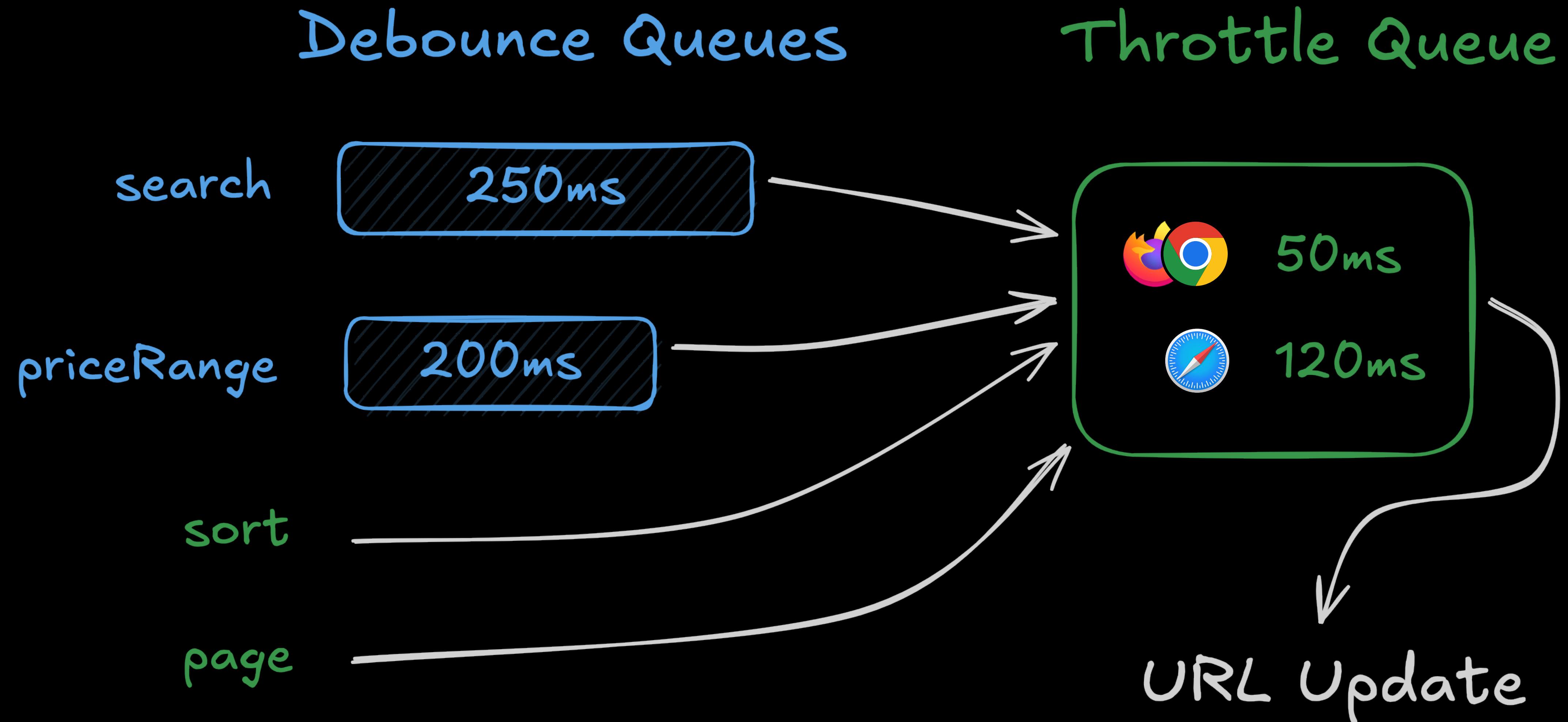
– Sir Tim Berners-Lee

- Size limits
- Immutability & migrations
- Rate Limits

# Time Safety



# Time Safety

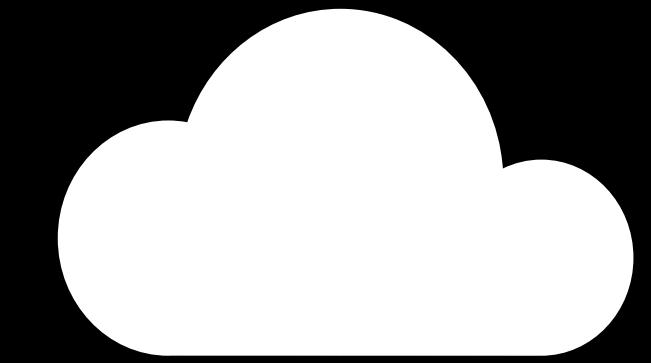


- Size limits
- Immutability & migrations
- Rate Limits
- Entrypoints

- Size limits
- Immutability & migrations
- Rate Limits
- Entrypoints
- SEO

# Demo

# Two Ways to Update The URL



router.replace



# Declarative Composition

Un-opinionated

Incremental

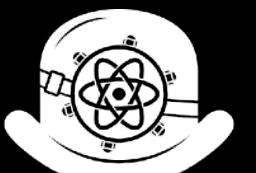
? n=u&q=s

# Thank you!

[nuqs.dev/react-advanced-25](https://nuqs.dev/react-advanced-25)



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