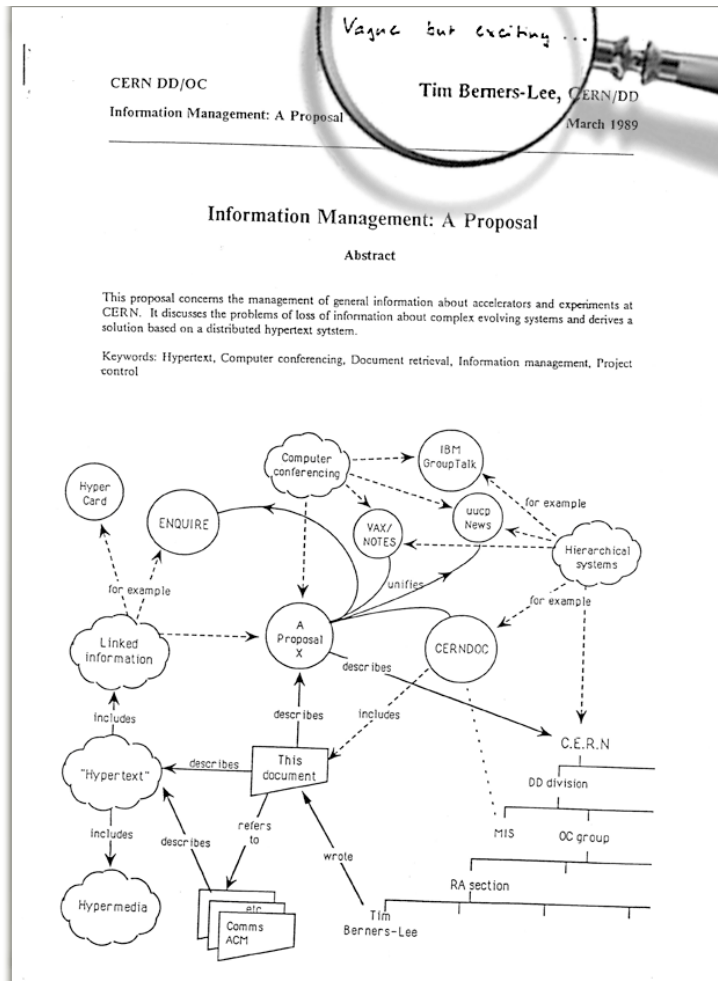




# HTML

## http Uvod

# The Web: origins



Tim Berners-Lee: a way to manage and access documents at CERN research lab

Info containing links to other info, accessible remotely, through a standardized mechanism.

# Web and HTTP: Some terms

- HTTP stands for “HyperText Transfer Protocol”
- A web page consists of many **objects**
- Object can be HTML file, JPEG image, video stream chunk, audio file,...
- Web page consists of **base HTML-file** which includes several referenced objects.
- Each object is addressable by a **uniform resource locator (URL)**
  - sometimes also referred to as **uniform resource identifier (URI)**
- Example URL:

`www.cs.rutgers.edu/~sn624/index.html`

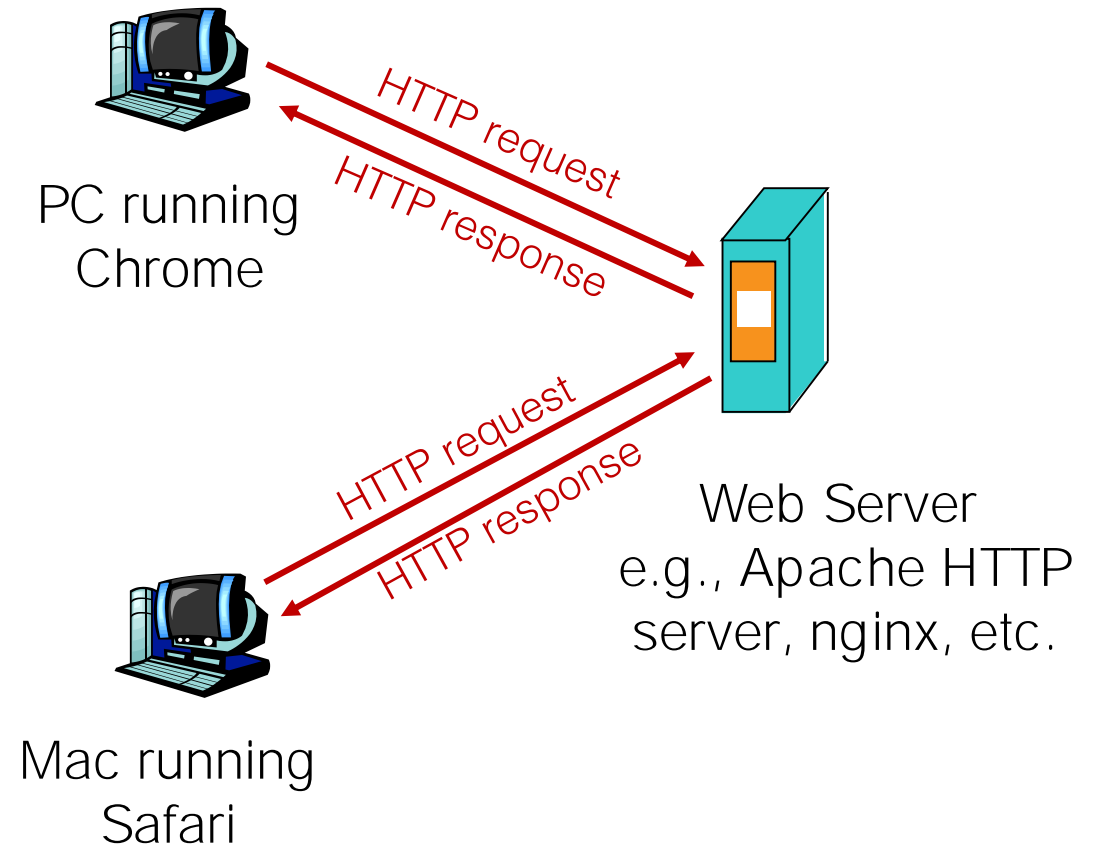
host name

path name

# HTTP overview

## HTTP: hypertext transfer protocol

- Client/server model
  - *Client*: browser that requests, receives, “displays” Web objects
  - *Server*: Web server sends objects in response to requests



# Client server connection

Host name

Hostname	IP address
Cs.Rutgers.edu	10.0.1.2

DNS



# HTTP messages: request message

- ASCII (human-readable format)

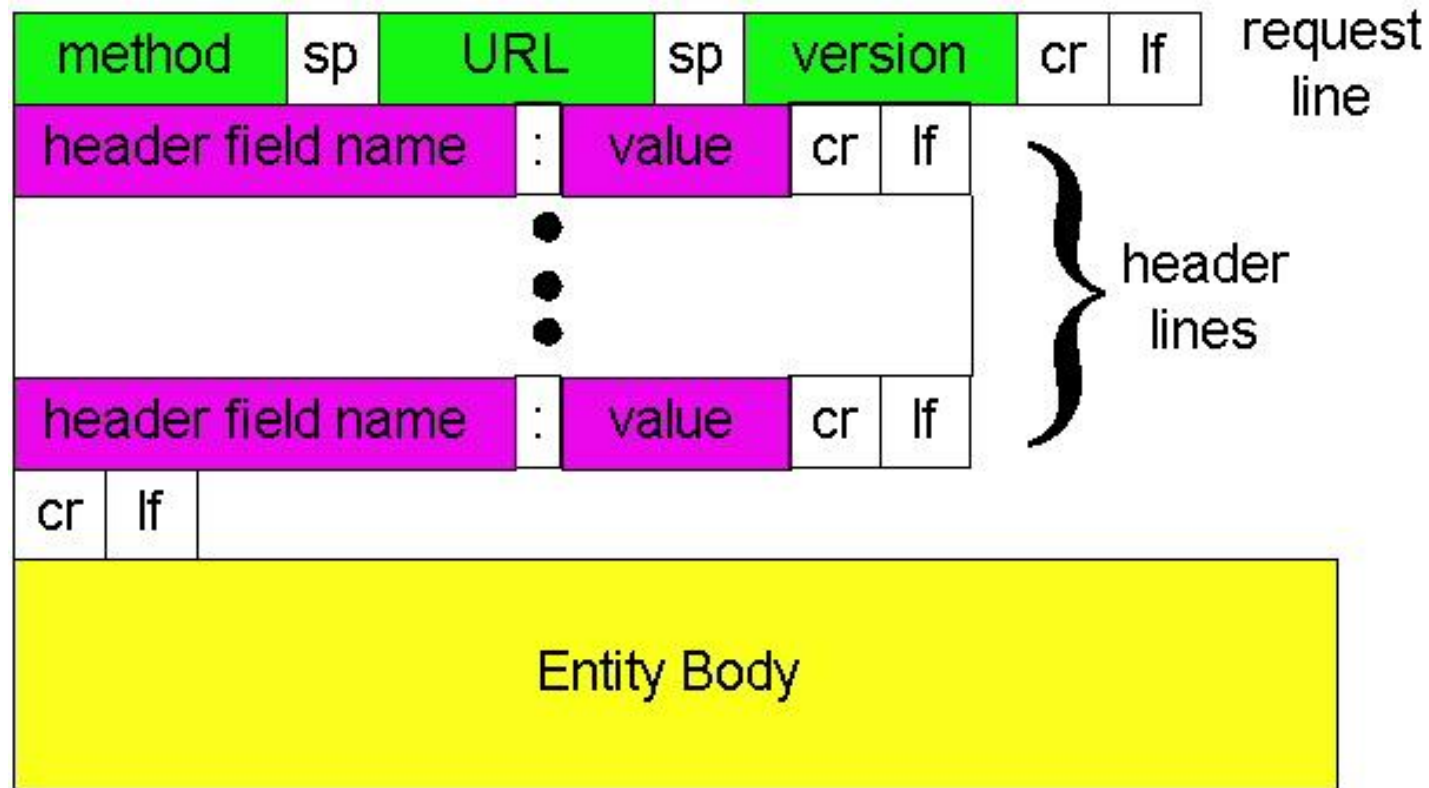
request line  
(GET, POST,  
HEAD commands)

Header lines

Carriage return,  
line feed  
indicates end  
of message

```
GET /352/syllabus.html HTTP/1.1
Host: www.cs.rutgers.edu
User-agent: Mozilla/4.0
Connection: close
Accept-language: en
(extra carriage return, line feed)
```

# HTTP Request: General format



<http://www.w3.org/Protocols/rfc2616/rfc2616-sec14.html#sec14>

# HTTP most common method types

- GET

- Get the resource specified in the requested URL. URL may refer to a data-handling process

- POST

- Send entities (specified in the entity body) to a data-handling process at the requested URL – create new resource

- PATCH

- Update part of a resource at the requested URL with the new entity specified in the entity body

- PUT

- Update a resource at the requested URL with the new entity specified in the entity body

- DELETE

- Deletes file specified in the URL



# Uploading form input: GET and POST

## POST method:

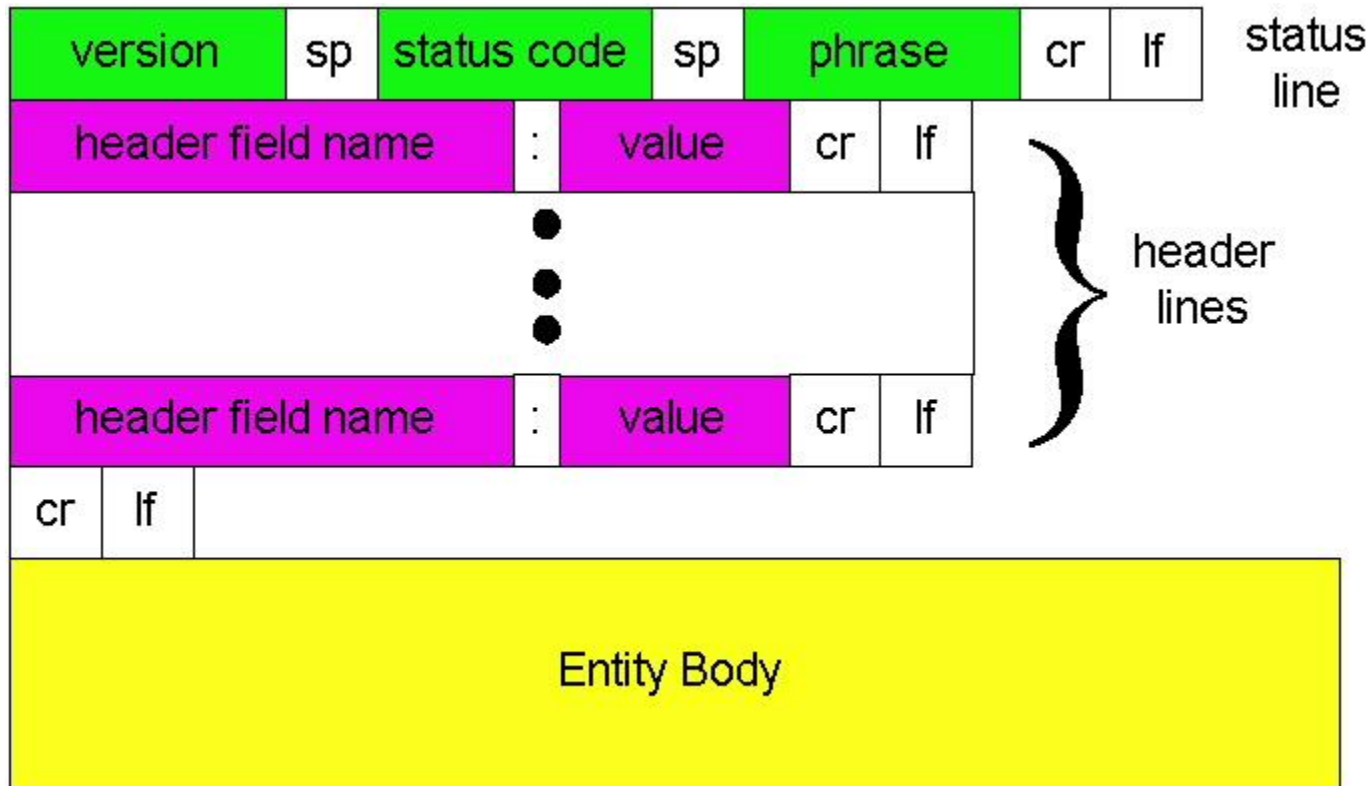
- Web page often includes form input
- Input is uploaded to server **in entity body**
- Posted content not visible in the URL
  - Free form content (ex: images) can be posted since entity body interpreted as data bytes

## GET method:

- Entity body is empty
- Input is uploaded **in URL field of request line**
- Example:
  - `http://site.com/form?first=jane&last=austen`

# HTTP Response: General format

Unlike HTTP  
request, No  
method  
name



# HTTP message: response message

status line

(protocol

status code

status phrase)

response

header

lines

HTTP/1.1 200 OK

Connection: close

Date: Thu, 06 Aug 1998 12:00:15 GMT

Server: Apache/1.3.0 (Unix)

Last-Modified: Mon, 22 Jun 1998 .....

Content-Length: 6821

Content-Type: text/html

data, e.g., requested

HTML file in entity body

data data data data data ...

# HTTP response status codes

In first line in server->client response message.

A few sample codes:

## **200 OK**

- request succeeded, requested object later in this message

## **301 Moved Permanently**

- requested object moved, new location specified later in this message (Location:)

## **403 Forbidden**

- Insufficient permissions to access the resource

## **404 Not Found**

- requested document not found on this server

## **505 HTTP Version Not Supported**

**Hvala na  
pažnji!**

