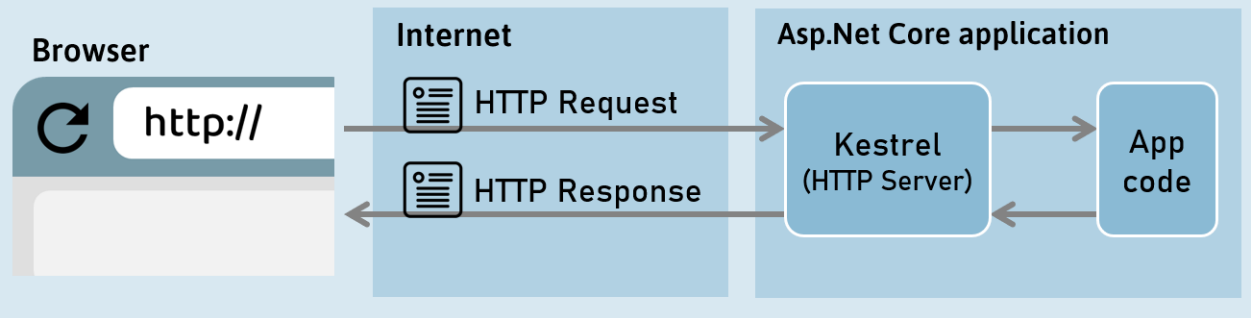
Section Cheat Sheet (PPT)

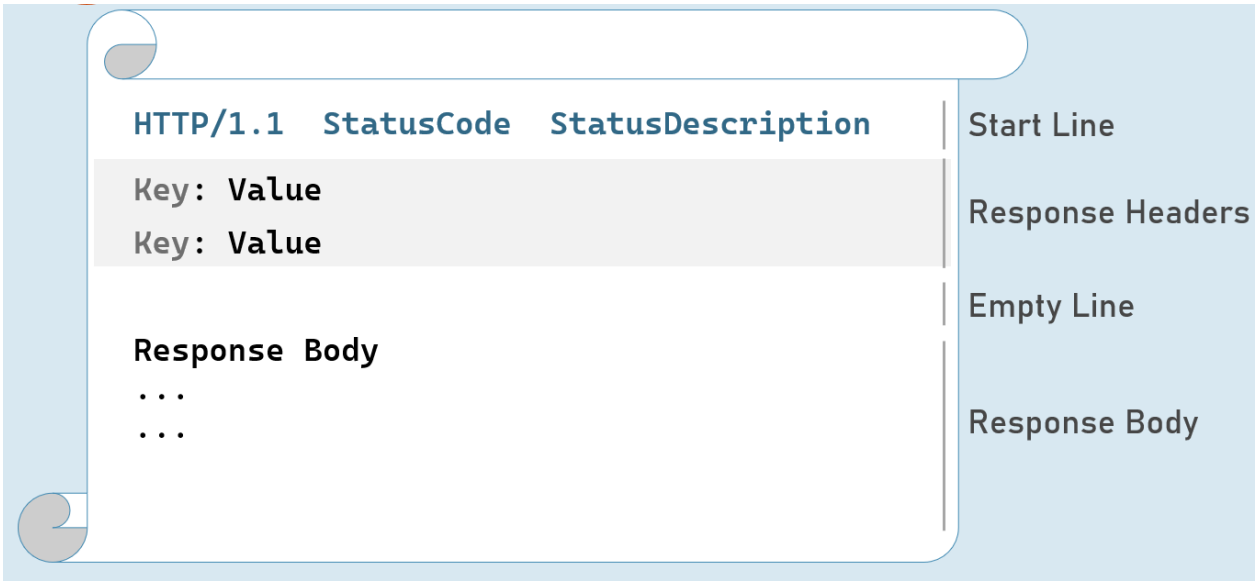
Introduction to HTTP

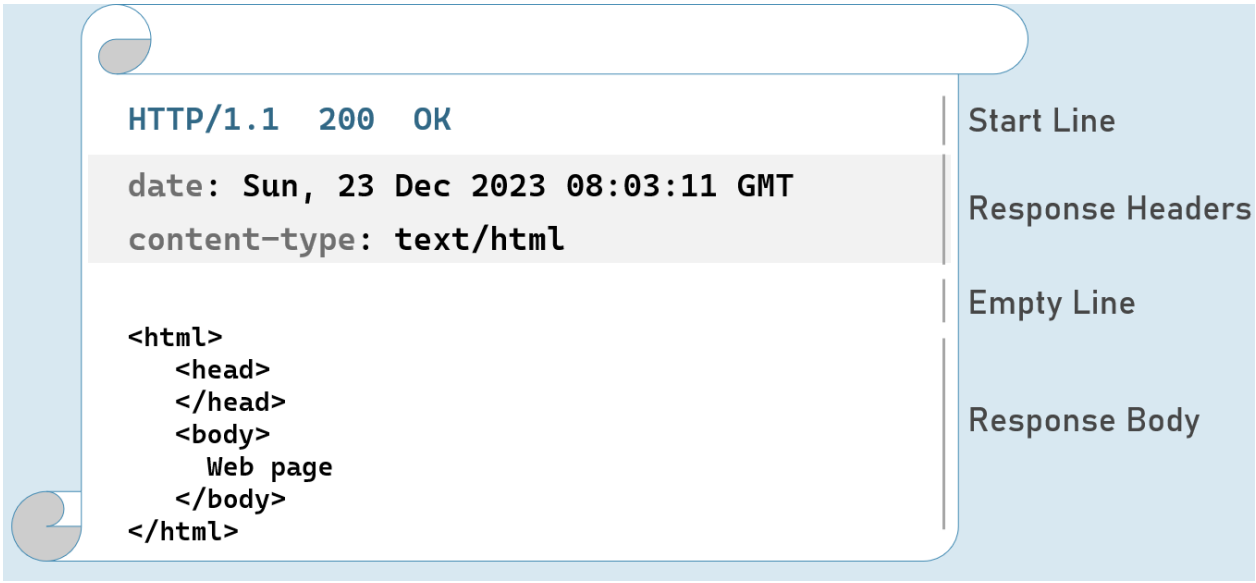
> HTTP is an application-protocol that defines set of rules to send request from browser to server and send response from server to browser.

Initially developed by Tim Berners Lee, later standardized by IETF (Internet Engineering Task Force) and W3C (World Wide Web Consortium)



HTTP Response





Response Start Line

Includes HTTP version, status code and status description.

HTTP Version: 1/1 | 2 | 3

Status Code: 101 | 200 | 302 | 400 | 401 | 404 | 500

Status Description: Switching Protocols | OK | Found | Bad Request | Unauthorized | Not Found | Internal Server Error

HTTP Response Status Codes

1xx | Informational

101 Switching Protocols

2xx | Success

200 OK

3xx | Redirection

302 Found

304 Not Modified

4xx | Client error

400 Bad Request

401 Unauthorized

404 Not Found

5xx | Server error

500 Internal Server Error

HTTP Response Headers

Date

Date and time of the response. Ex: Tue, 15 Nov 1994 08:12:31 GMT

Server

Name of the server.

Ex: Server=Kestrel

Content-Type

MIME type of response body.

Ex: text/plain, text/html, application/json, application/xml etc.

Content-Length

Length (bytes) of response body.

Ex: 100

Cache-Control

Indicates number of seconds that the response can be cached at the browser.

Ex: max-age=60

Set-Cookie

Contains cookies to send to browser.

Ex: x=10

Access-Control-Allow-Origin

Used to enable CORS (Cross-Origin-Resource-Sharing)

Ex: Access-Control-Allow-Origin: http://www.example.com

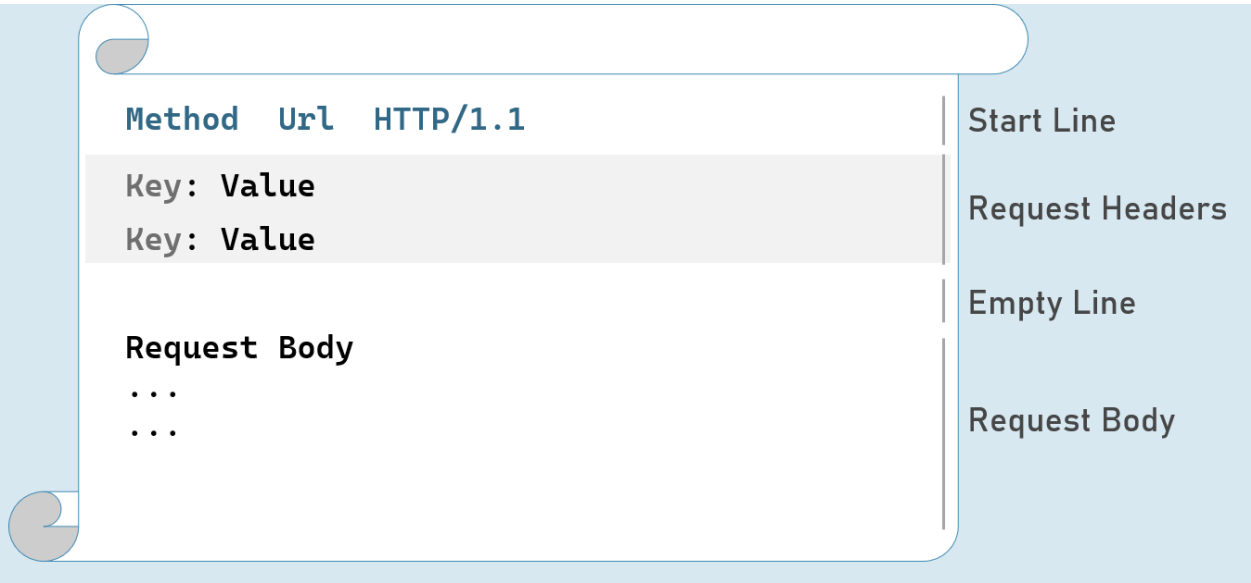
Location

Contains url to redirect.

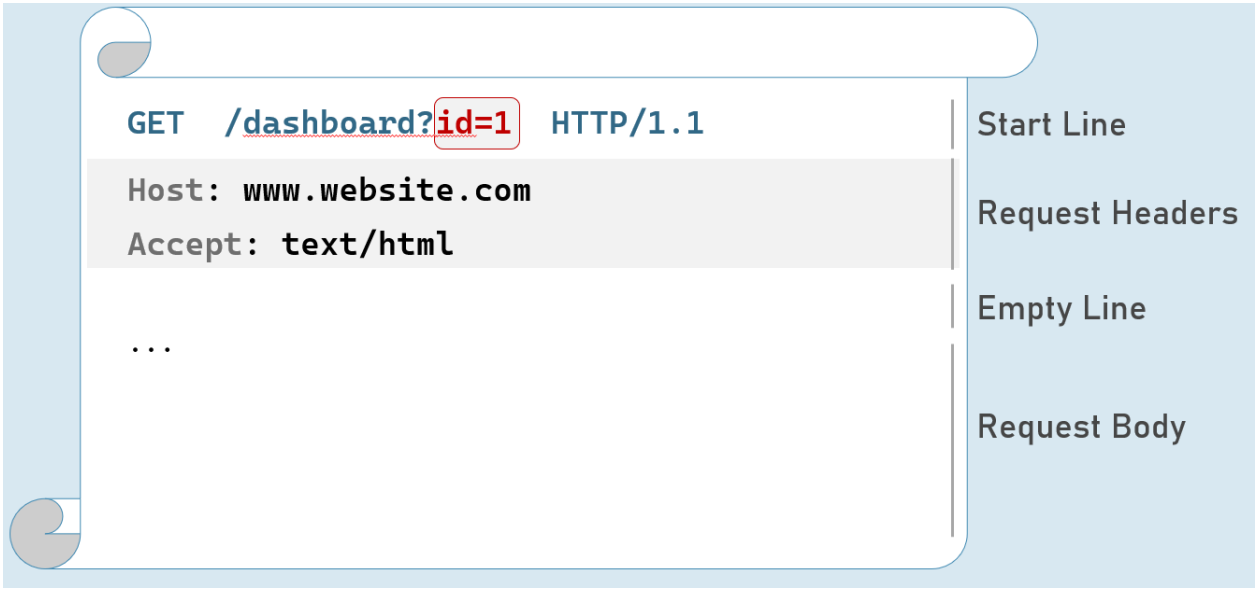
Ex: http://www.example-redirect.com

Further reading: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers

HTTP Request



HTTP Request - with Query String



HTTP Request Headers

Accept

Represents MIME type of response content to be accepted by the client. Ex: text/html

Accept-Language

Represents natural language of response content to be accepted by the client. Ex: en-US

Content-Type

MIME type of request body.

Eg: text/x-www-form-urlencoded, application/json, application/xml, multipart/form-data

Content-Length

Length (bytes) of request body.

Ex: 100

Date

Date and time of request.

Eg: Tue, 15 Nov 1994 08:12:31 GMT

Host

Server domain name.

Eg: www.example.com

User-Agent

Browser (client) details.

Eg: Mozilla/5.0 Firefox/12.0

Cookie

Contains cookies to send to server.

Eg: x=100

Further reading: https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers

HTTP Request Methods

GET

Requests to retrieve information (page, entity object or a static file).

Post

Sends an entity object to server; generally, it will be inserted into the database.

Put

Sends an entity object to server; generally updates all properties (full-update) it in the database.

Patch

Sends an entity object to server; generally updates few properties (partial-update) it in the database.

Delete

Requests to delete an entity in the database.

HTTP Get [vs] Post

Get:

- Used to retrieve data from server.

- Parameters will be in the request url (as query string only).
- Can send limited number of characters only to server. Max: 2048 characters
- Used mostly as a default method of request for retrieving page, static files etc.
- Can be cached by browsers / search engines.

Post:

- Used to insert data into server
- Parameters will be in the request body (as query string, json, xml or form-data).
- Can send unlimited data to server.
- Mostly used for form submission / XHR calls
- Can't be cached by browsers / search engines.