REPORT – 1

Hyper Text Transfer Protocol (HTTP)

* Used to deliver data (HTML files, image files, query results, etc.) on the World Wide Web
* works as a request-response protocol between a client and server

HTTP Request - message that is sent by a client to a server

Various HTTP  Request Methods :

* GET requests data from specific resource
* HEAD requests a specific resource without the body content
* POST adds content, messages, or data to a new page under an existing web resource
* PUT directly modifies an existing web resource or creates a new URI if need be
* DELETE gets rid of a specified resource
* TRACE shows users any changes or additions made to a web resource
* OPTIONS shows users which HTTP methods are available for a specific URL
* CONNECT converts the request connection to a transparent TCP/IP tunnel
* PATCH partially modifies a web resource

HTTP Response - information sent by Server to Client

An HTTP response contains :

1. Status Line
2. Response Header Fields or a series of HTTP headers
3. Message Body

Status Line

It is the first line and contains :

**a) HTTP Version Number**

It is used to show the HTTP specification to which the server has tried to make the message comply.

**b) Status Code**

Indicates the result of the request.

**Code and Description**

**1xx: Information**

It shows that the request was received and continuing the process.

**2xx: Success**

It shows that the action was received successfully, understood, and accepted.

**3xx: Redirection**

It shows that further action must be taken to complete the request.

**4xx: Client Error**

It shows that the request contains incorrect syntax, or it cannot be fulfilled.

**5xx: Server Error**

It shows that the server failed to fulfil a valid request.

**c) Reason Phrase/Status text**

Human-readable text that summarizes the meaning of the status code.

Example of the response line : HTTP/1.1 200 OK

* HTTP/1.1 - HTTP version.
* 200 - status code.
* OK - reason phrase.

Response Header Fields

Contain the information the server and about further access to the resource

Message Body

Response to a successful request - body of the message contains information about the status of the action or the resource which is requested by the client

Response to an unsuccessful request - body of the message might provide further information about some action the client needs to take to complete the request successfully or about the reason for the error