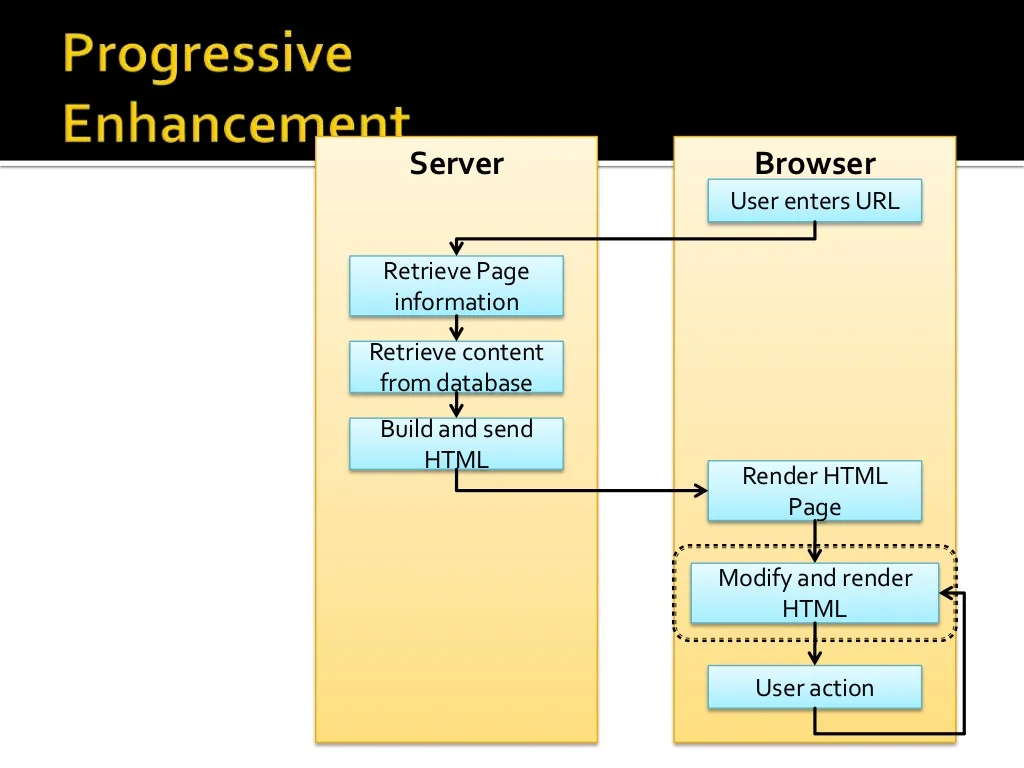
**Assignment 1**

When a user enters an URL in the browser, how does the browser fetch the desired result ?

- Below are the following steps that browser perform as URl is entered:

* Type the URL in the browser.
* Browser fetches the IP Address of the Domain name.
* Browser establish a connection with server.
* Browser sends a request.
* Server responds with the file/data.
* Browser shows the content.



What is the main functionality of the browser?

The main task is to collect information from the Internet and make it accessible to users.

**High Level Components of a browser?**

The browser's main components are :

**1. The user interface:**

This includes the address bar, back/forward button, bookmarking menu, etc. Every part of the browser.

**2. The browser engine**

**3. Networking:**

For network calls such as HTTP requests, using different implementations for different platform

**4. JavaScript interpreter.**

Used to parse and execute JavaScript code.

**5. Data storage.**

This is a persistence layer. The browser may need to save all sorts of data locally, such as cookies.

6. **The rendering engine :**

Responsible for displaying requested content. For example if the requested content is HTML, the rendering engine parses HTML and CSS, and displays the parsed content on the screen.

**Parsers:**

A parser is a compiler or interpreter component that breaks data into smaller elements for easy translation into another language.

**Script** **Processors**:

The script processor uses the [script cache](https://www.elastic.co/guide/en/elasticsearch/reference/master/scripts-and-search-speed.html) to avoid recompiling the script for each incoming document.