**Structure Of Web Browser**

The main components of a web browsers are:

* User Interface (UI)
* Browser Engine
* Rendering Engine
* JavaScript Interpreter
* Networking
* Data Storage

**User Interface (UI):** It is a browser which is visible to user to interact. This includes Address bar, forward/backward button etc.

**Browser Engine:** We can browser engine as an inter-mediator which will marshals action between UI and Rendering Engine. It also provides method to initiate the loading of URL and other browsing actions like reload, forward and backward.

**Rendering Engines:** The role of Rendering Engine is to display the requested content on the screen. Different browser uses different Rendering Engine: IE uses Trident, Firefox uses Gecko, Chrome and Opera uses Blink, Safari uses Webkit. The Rendering Engine will start to get the content of document that user requested from networking layer. The rendering engine will start parsing the HTML document and convert elements to DOM nodes in a tree. After the construction of the tree, Rendering Engine starts the layout process that is giving each node the exact coordinates where it should appear on the screen. The next process is painting, in which the tree will be traversed and each node will be painted using the UI backend layer.

**JavaScript Interpreter:** This component executes the JavaScript code that is embedded in a site and results of execution is passed on to the Rendering Engine. Like Rendering different browser uses different JavaScript Interpreter: IE uses Chakra, Firefox uses SpiderMonkey, Chrome and Blink uses V8, Safari uses Nitro.

**Networking:** Component of the browser which retrieves the URLs using the common internet protocols of HTTP or FTP. The networking component handles all aspects of Internet communication and security. The network component may implement a cache of retrieved documents in order to reduce network traffic

**Data Storage:** The browser may need to save all sorts of data locally, such as cookies. Browsers also support storage mechanisms such as local Storage, Indexed DB, Web SQL and File-System.