

The background is a light gray field filled with a pattern of overlapping triangles in various shades of gray. Scattered across this pattern are small, dark gray icons of stars and crescent moons.

2.The rendering engine

Basic Flow

BASIC FLOW OF THE RENDERING ENGINE:



MODERN RENDERING ENGINE

1. Parse DOM Tree and CSSOM Tree to Render Tree

The rendering engine will start parsing the HTML document and convert elements to **DOM nodes in a tree** called the "content tree". The engine will parse the **style data**, both in external CSS files and in style elements. Styling information together with visual instructions in the HTML will be used to create another tree: the render tree.

2. Render Tree with visual attributes

The render tree contains **rectangles with visual attributes** like color and dimensions. The rectangles are in the right order to be displayed on the screen.

3. Layout and Painting

Layout means giving each node the **exact coordinates** where it should appear on the screen. Then painting — the render tree will be traversed and each node will be painted using the UI backend layer.

4. A gradual process

The rendering engine will try to display contents on the screen as soon as possible for better user experience. It will not wait until all HTML is parsed before starting to build and layout the render tree. **Parts of the content will be parsed and displayed**, while the process continues with the rest of the contents that keeps coming from the network.