→ CRITICAL RENDERING PATH

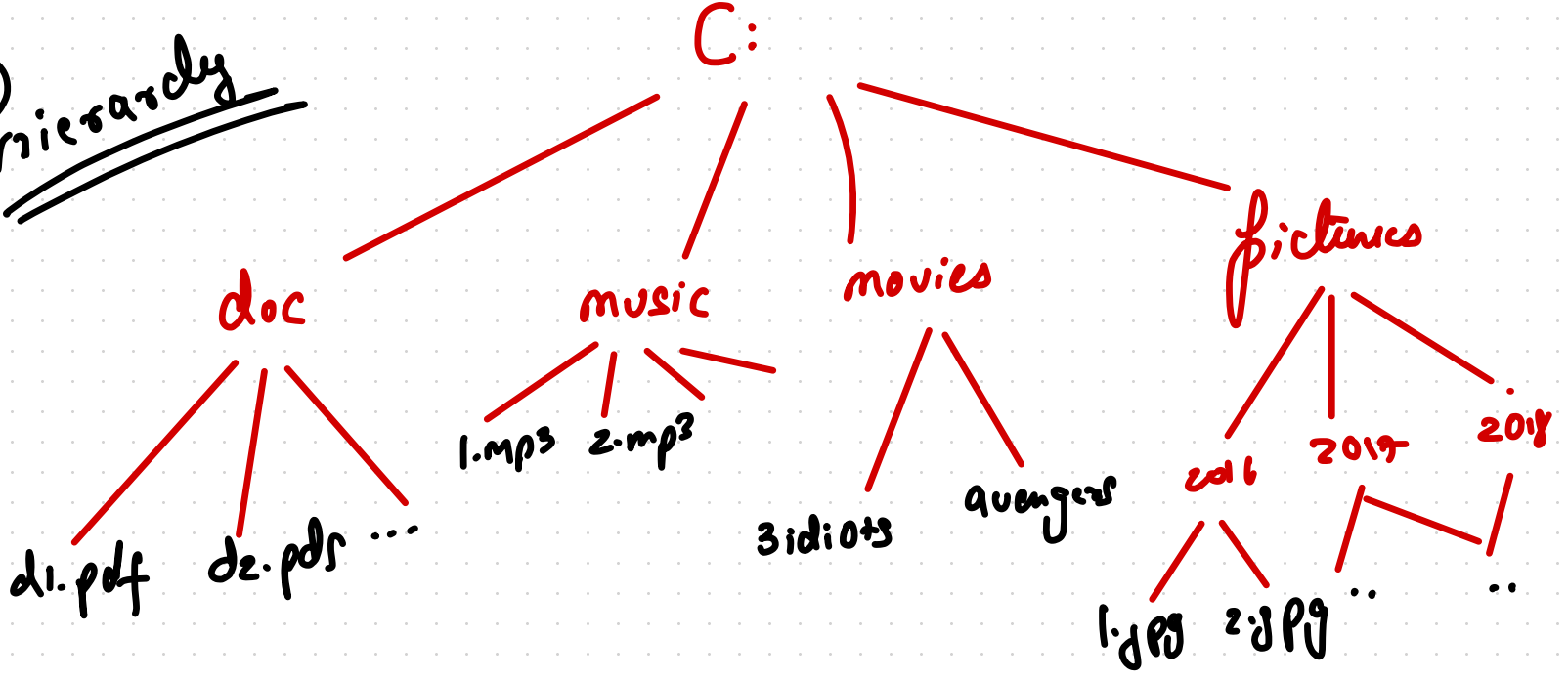
1) Constructing the DOM Tree
2) Constructing the CSSOM tree (brand new)
3) Running Javascript
4) Create the Render tree

5) Layout

6) Painting

Step-1 Constructing the Dom tree.

hierarchy

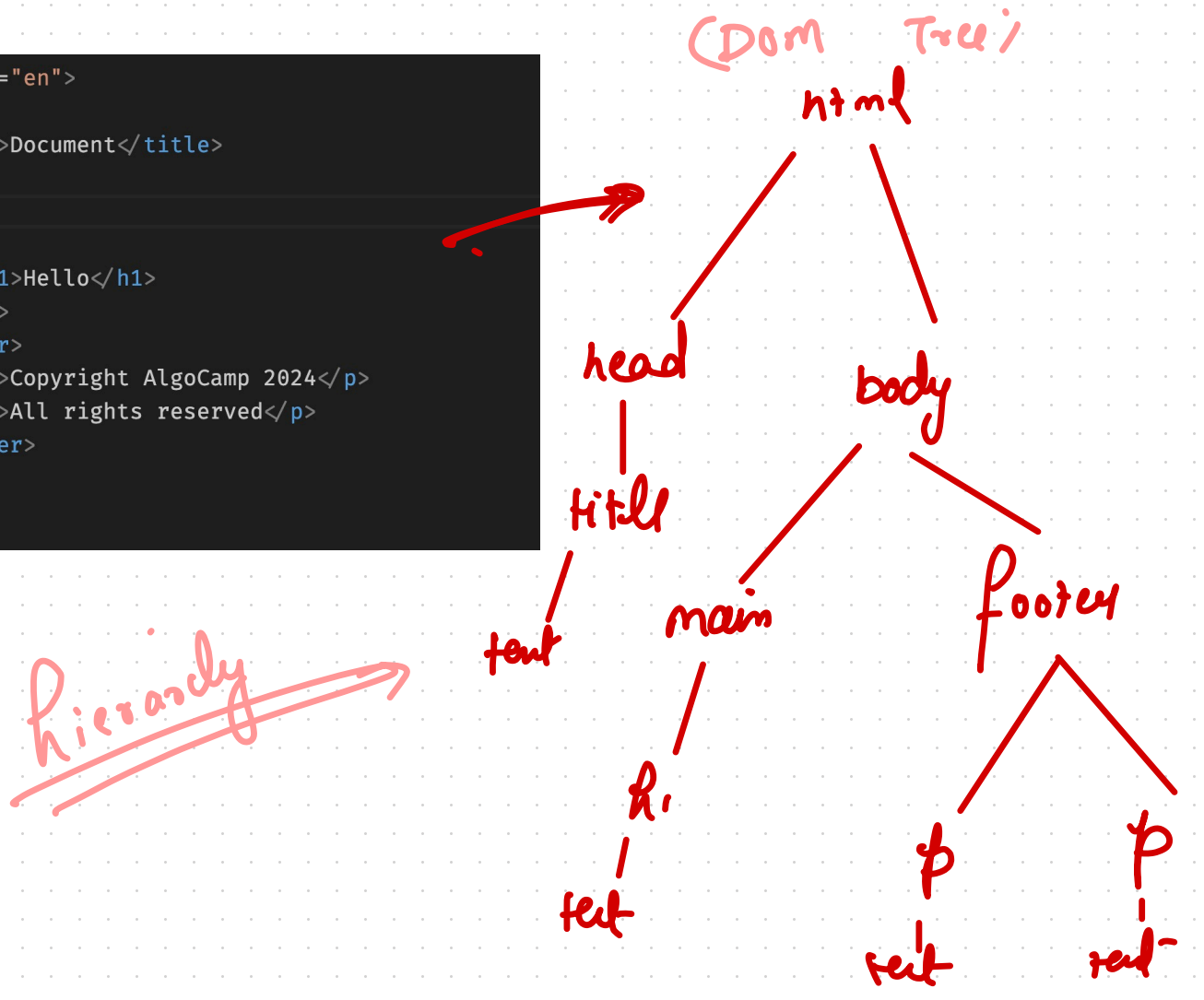


In computer there are a lot of situations where computer needs to store Hierarchy based data.

for this computer makes a Tree

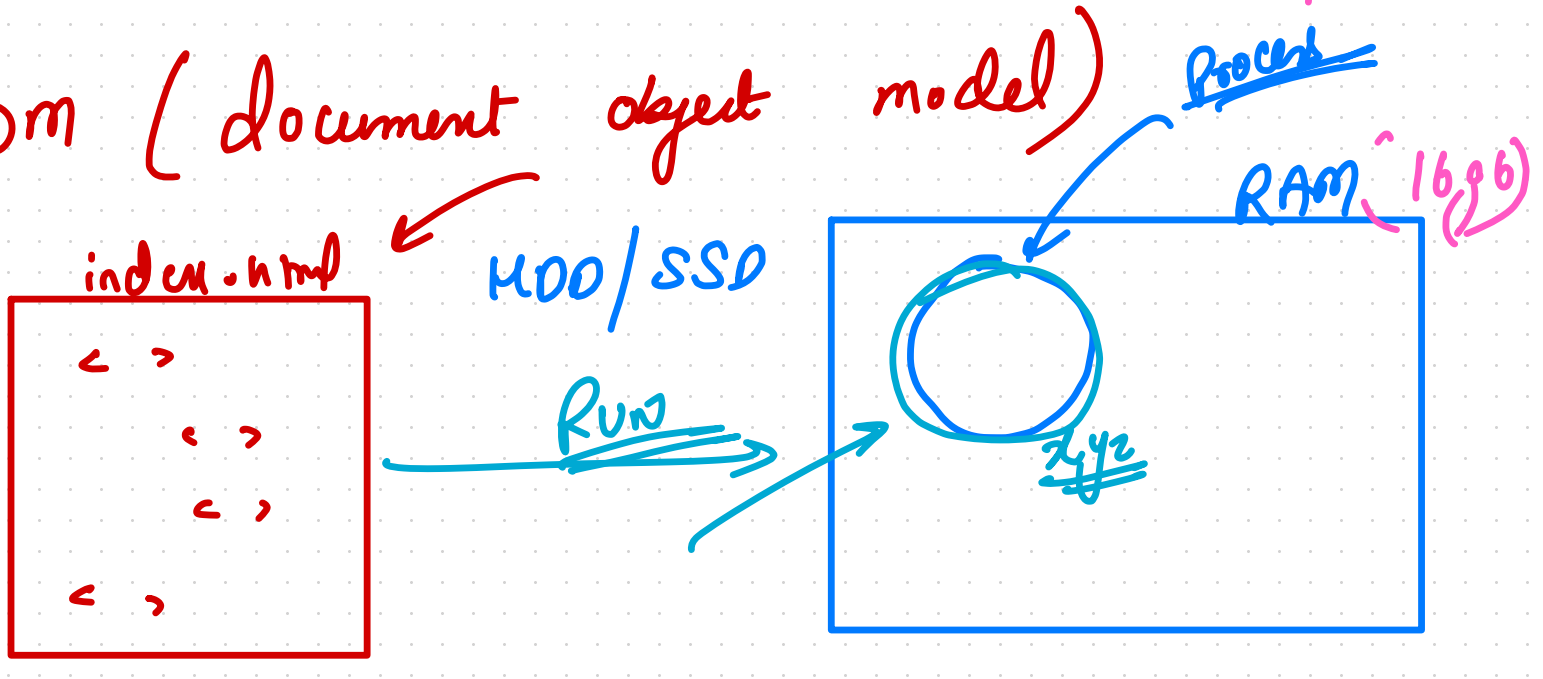
(Tree is a way to store Hierarchy based data.)

```html
<html lang="en">
<head>
    <title>Document</title>
</head>
<body>
    <main>
        <h1>Hello</h1>
    </main>
    <footer>
        <p>Copyright AlgoCamp 2024</p>
        <p>All rights reserved</p>
    </footer>
</body>
</html>
```



DOM tree stores the hierarchy based structure of html.

DOM (document object model)



How is dom constructed ??

1) ↳ parsing → reads the html

2) ↳ tokenization

↓

in tokenization we break the html into individual units.

3) ↳ Converting these tokens into objects & then combine to make a tree called as DOM

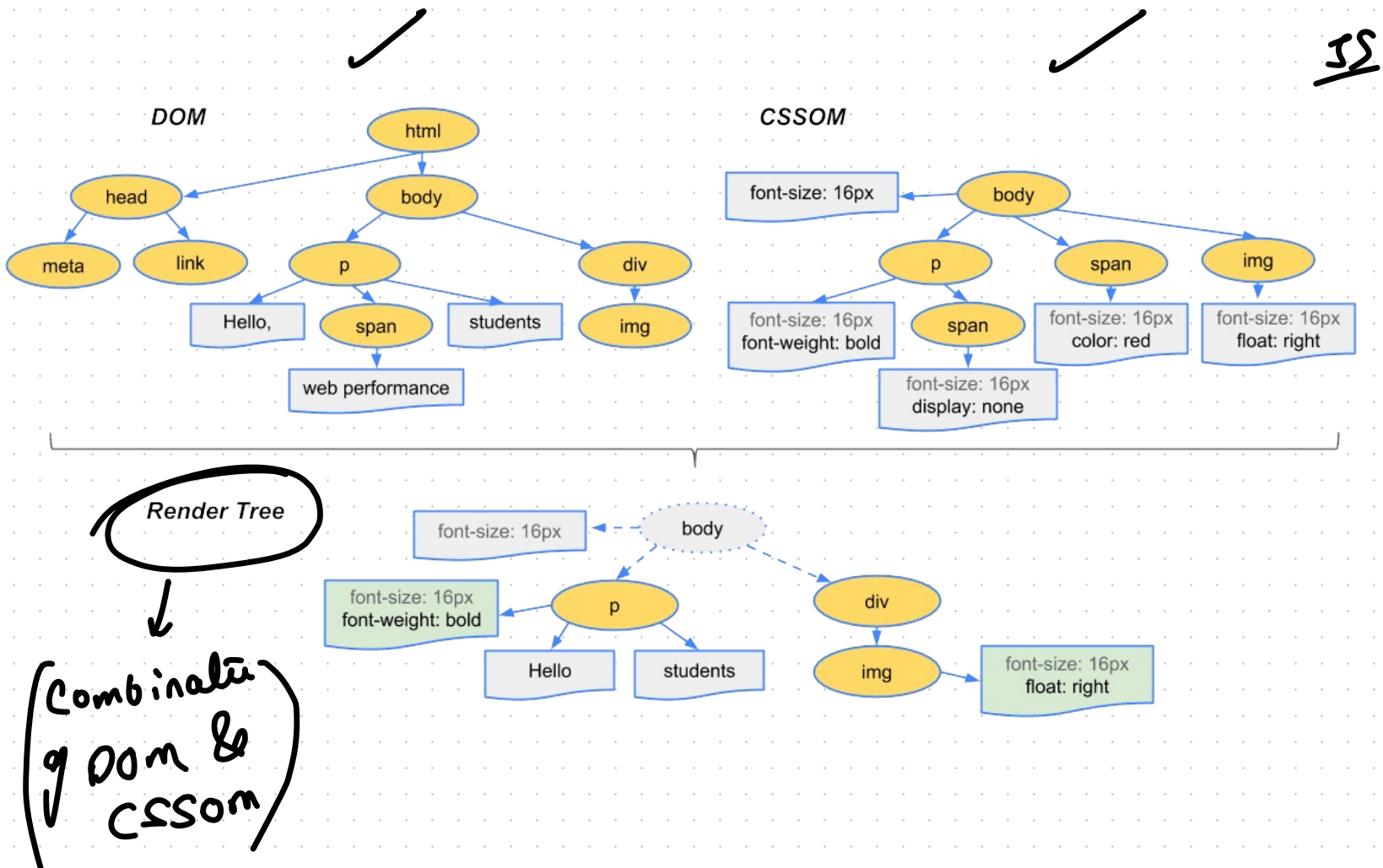
#step 9 Construction of CSS om tree

Just like DOM is created for html,

CSSOM is created for CSS.

CSSOM → Tree

CSS object model


DOM
html
head
body
meta
link
p
div
Hello,
span
students
img
web performance
CSSOM
font-size: 16px
body
p
span
img
font-size: 16px
font-weight: bold
span
font-size: 16px
color: red
font-size: 16px
float: right
font-size: 16px
display: none
Render Tree
font-size: 16px
body
font-size: 16px
font-weight: bold
p
div
Hello
students
img
font-size: 16px
float: right
Combinate
g DOM &
CSSOM

DOM + CSSOM → Render tree

Render tree is a comb of DOM & CSSOM.

It only contains visible elements of the page.

Layout (Reflow) ← image

↳ (this step does all the measurement)

↳ (also calc position on the page where elements are placed)

Painting

at the step page is painted pixel by pixel on the screen.