async and defer

async and defer attributes are used along the script tag to load external scripts efficiently in our web page.

When we load a web page there are two major things happens in the browser one is html parsing second is loading of the scripts.

Loading of the scripts contains two part one is fetching the script from the network and second is executing script line by line.

1) < script src ="   " / >

black line indicates executing html, red line indicate fetching script, yellow line indicates executing the script.

in first scenario html execution will pause while fetching and executing script which is not good.

2) < script async src =" " / >

2) while executing htm script is fetched executed and then html execution continues.

3) <script defer src =" " />

3) while executing html scripts are fetched after execution of html completes scripts are executed.

When we should use what?
async attribute does not guarantee order of execution but defer does, so putting a defer attribute in multiple script which are dependend on each other might break the code, in this case we should use defer, if scripts are not dependent on each other we can use async, but using defer is good because it maintains the order of execution.

By: Iliyaskhan
     @iliyaskhantws