where to put Javascript

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execute now

```html
<!DOCTYPE html>
<body>
Hello!
  <script>
    alert('Goodbye!')
  </script>
</body>
</html>
```

now? Goodbye before Hello

script element
▶ usually in head, but in body allowed too
▶ executes when encountered, but...

generally not good
▶ page content has not been fully loaded
▶ DOM incomplete, manipulations unpredictable
embedding Javascript

```html
<!DOCTYPE html>
<body>
    <button onclick="alert('Pressed')">
        Press me!
    </button>
</body>
</html>
```

embed listener code in HTML
› a code string, not a function

code executes in element’s namespace
› so shadowing of function & var names

javascript and HTML jumbled together
› makes a horrible mess
a better separation

strategy
› declare functions, usually in head
› register a main function against page being loaded
› this function registers other functions...

“unobtrusive Javascript”
› separate JS from HTML markup
› degrade gracefully, and accessibly
unobtrusive javascript

```html
<!DOCTYPE html>

<head>
  <title>unobtrusive JS example</title>
  <script>
    function setup() {
      var inputs = document.body.getElementsByTagName('input');
      for (var i = 0; i < inputs.length; i++) {
        inputs[i].addEventListener('mouseover',
          function (evt) {evt.target.focus();});
      }
    }
    window.onload = setup;
  </script>
</head>

<body>
  name:<input><br>
  email:<input>
</body>
</html>
```

what it does
❯ when mouse hovers over input element, gives it focus