

Asynchronous Programming

Do not block the queue!



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Synchronous Programming

"Blocking code"

```
let req = new window.XMLHttpRequest()
```

```
req.open('GET', 'students.json', false)
```

```
req.send()
```

synchronous function calls

```
let json = JSON.parse(req.responseText)
```

req.open() is also a synchronous function call. However, this method is not doing any heavy or lengthy work.

Note: synchronous XMLHttpRequests are not allowed in modern browsers.

browser
web apis

stack

Task Queue

```
let req = new window.XMLHttpRequest()  
req.open('GET', 'students.json', false)  
req.send()  
console.log(req.responseText)
```

Asynchronous Programming

"Non blocking code"

```
let req = new window.XMLHttpRequest()
```

```
req.addEventListener('load', function(){  
  console.log(req.responseText)  
})
```

```
req.open('GET', 'students.json')  
req.send()
```

browser
web apis

GET students.json

Task

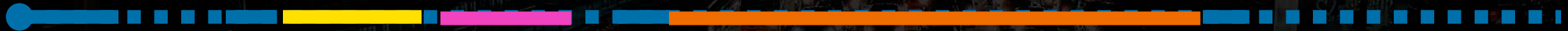
Task Queue

stack

```
let req = new window.XMLHttpRequest()  
req.addEventListener('load', f1)  
req.open('GET', 'students.json')  
console.log(req.responseText)
```

Async vs. Sync

Synchronous “blocking code”:



Asynchronous “Non blocking code”:



