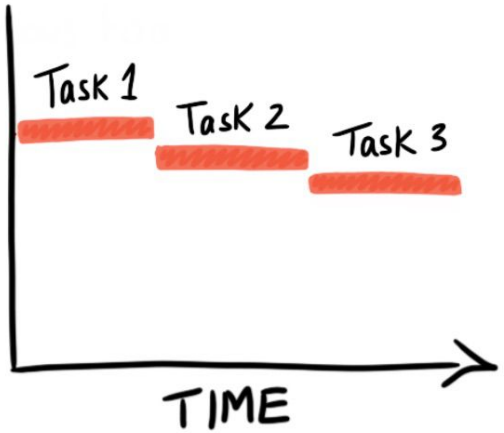
@Rapid_API

Synchronous and Asynchronous Programming

Synchronicity refers to the way code is executed.

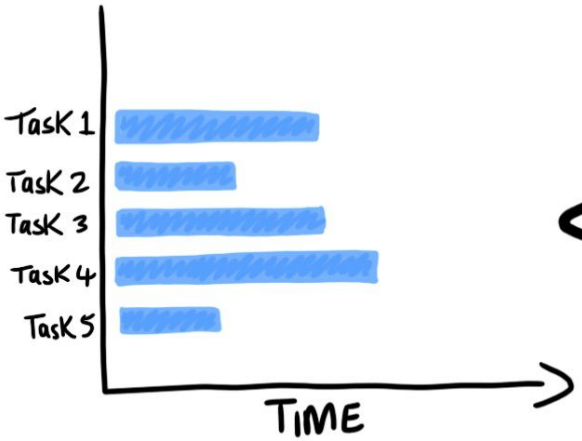
Synchronous

Synchronous calls are blocking.
This means all other code execution
is halted until the call is returned.



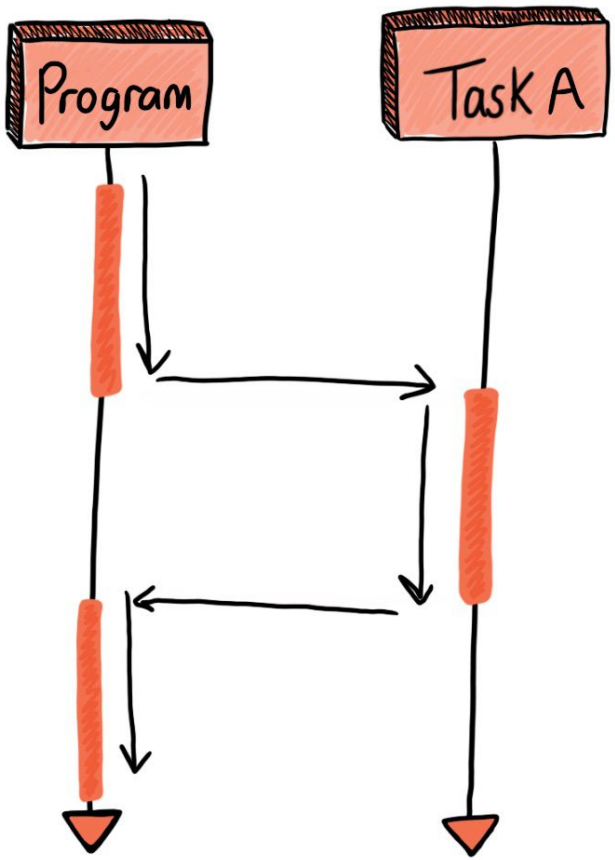
Asynchronous

Asynchronous calls are carried out whilst
the rest of the code continues to execute,
no matter how long they take.



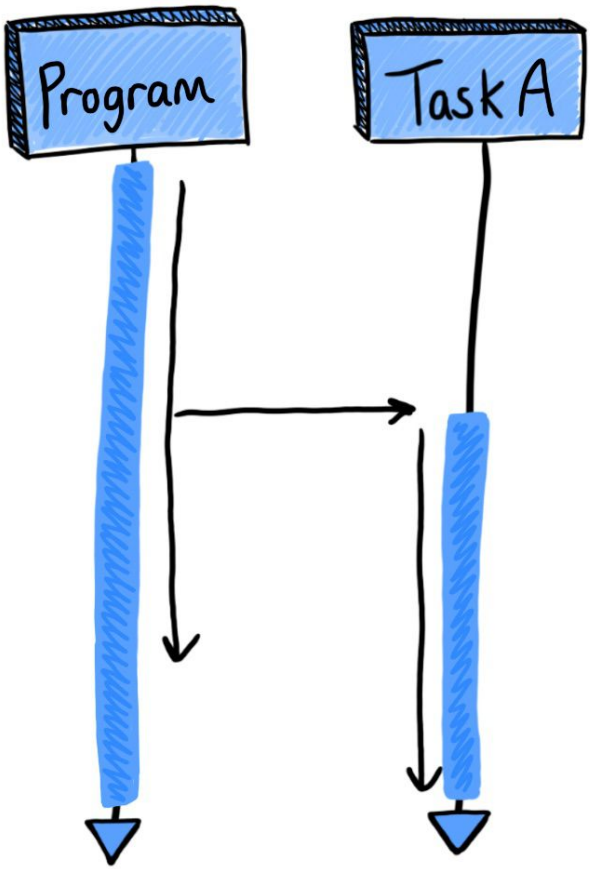
Synchronous

Tasks performed one at a time. When one ends, the next one begins.



Asynchronous

Independent tasks carried out in parallel.



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Asynchronous tasks mean the browser can maintain functionality rather than get held up waiting on a request.

Async programming can lead to greater performance and user experience.

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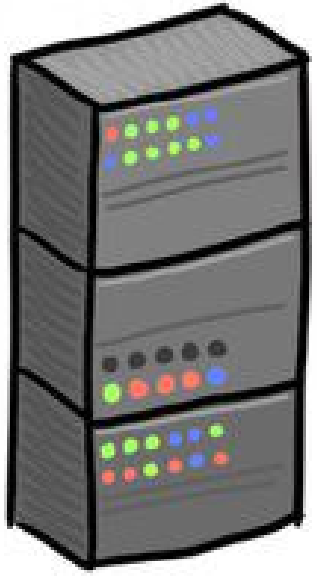
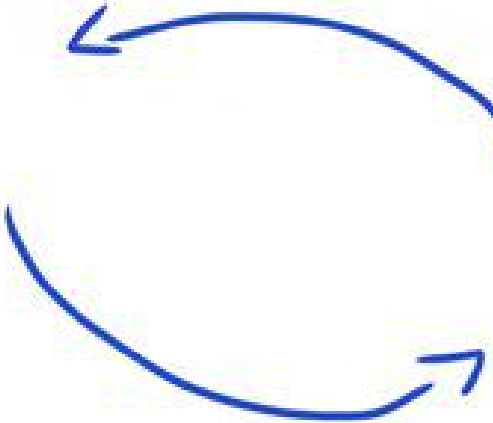
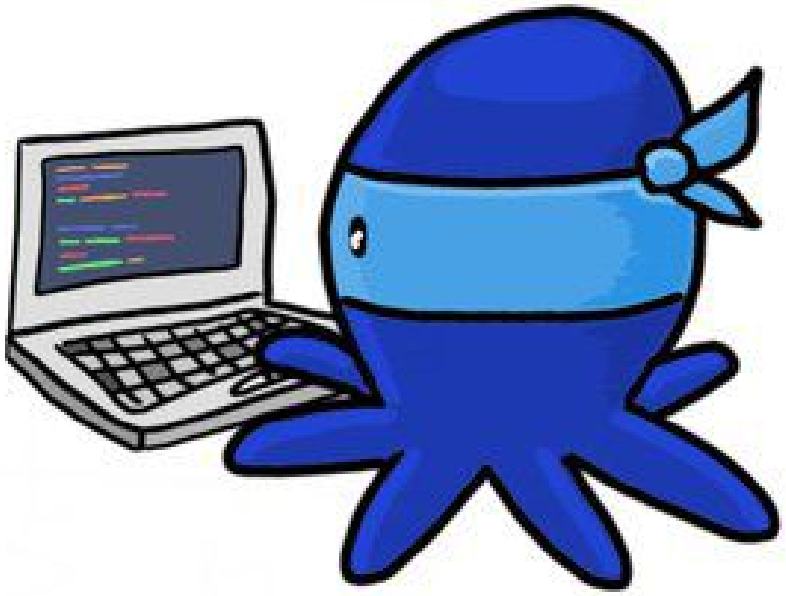
It isn't always necessary to choose async over synchronous programming.

Synchronous programming is great for programs that react to environmental input.



Tasks that may take longer, such as a database query, are better handled asynchronously.





Ultimately it depends on the requirements of your program!