Javascript Runtime Engine

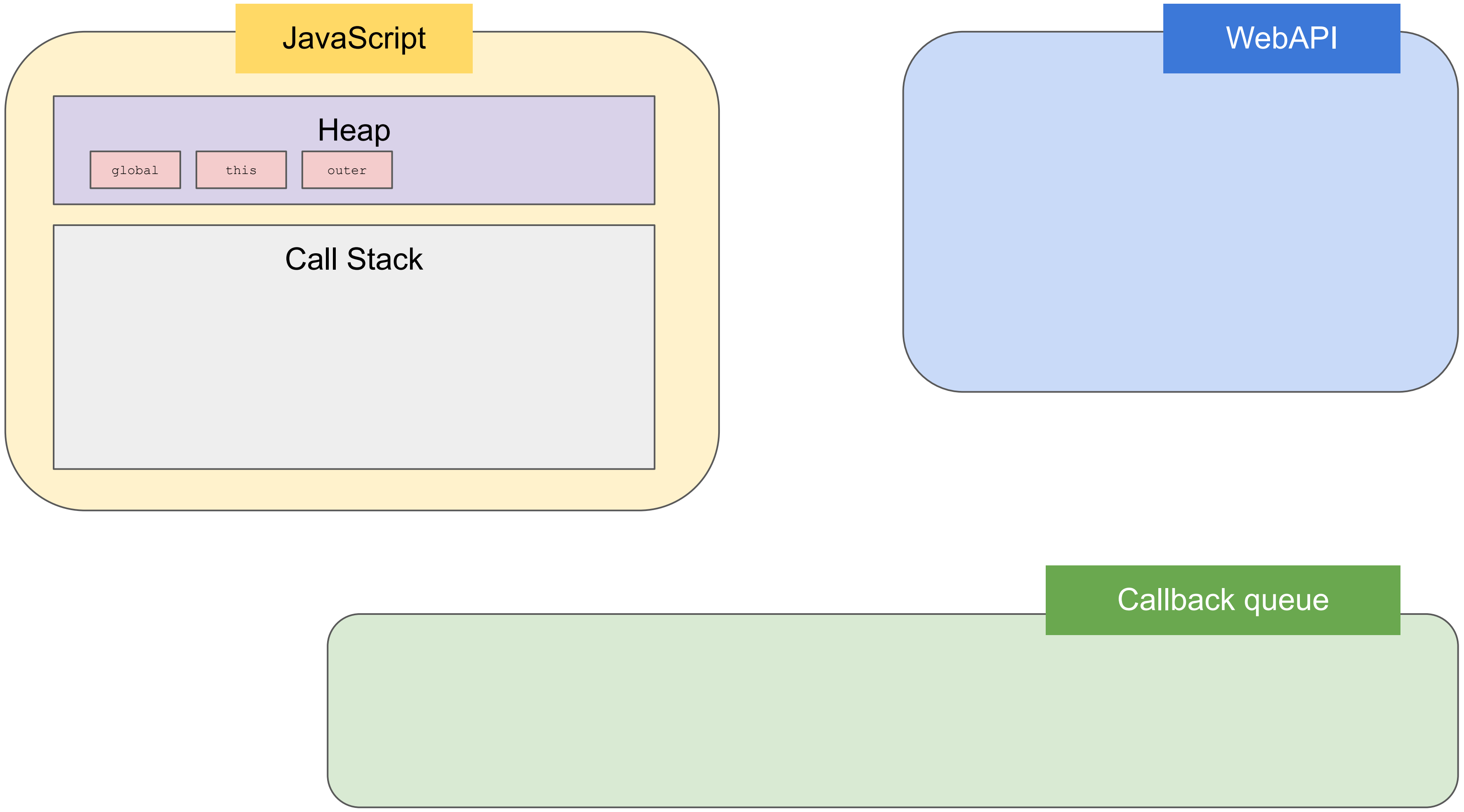
```
// Follow the thread of execution
function outer() {
  // timer is set to 10 milliseconds, once resolved the console.log is stored in the callback queue, then call stack
  // logs last, since it arrived last in the call back queue
  setTimeout(() => {
    console.log("Hello world")
  }, 10);

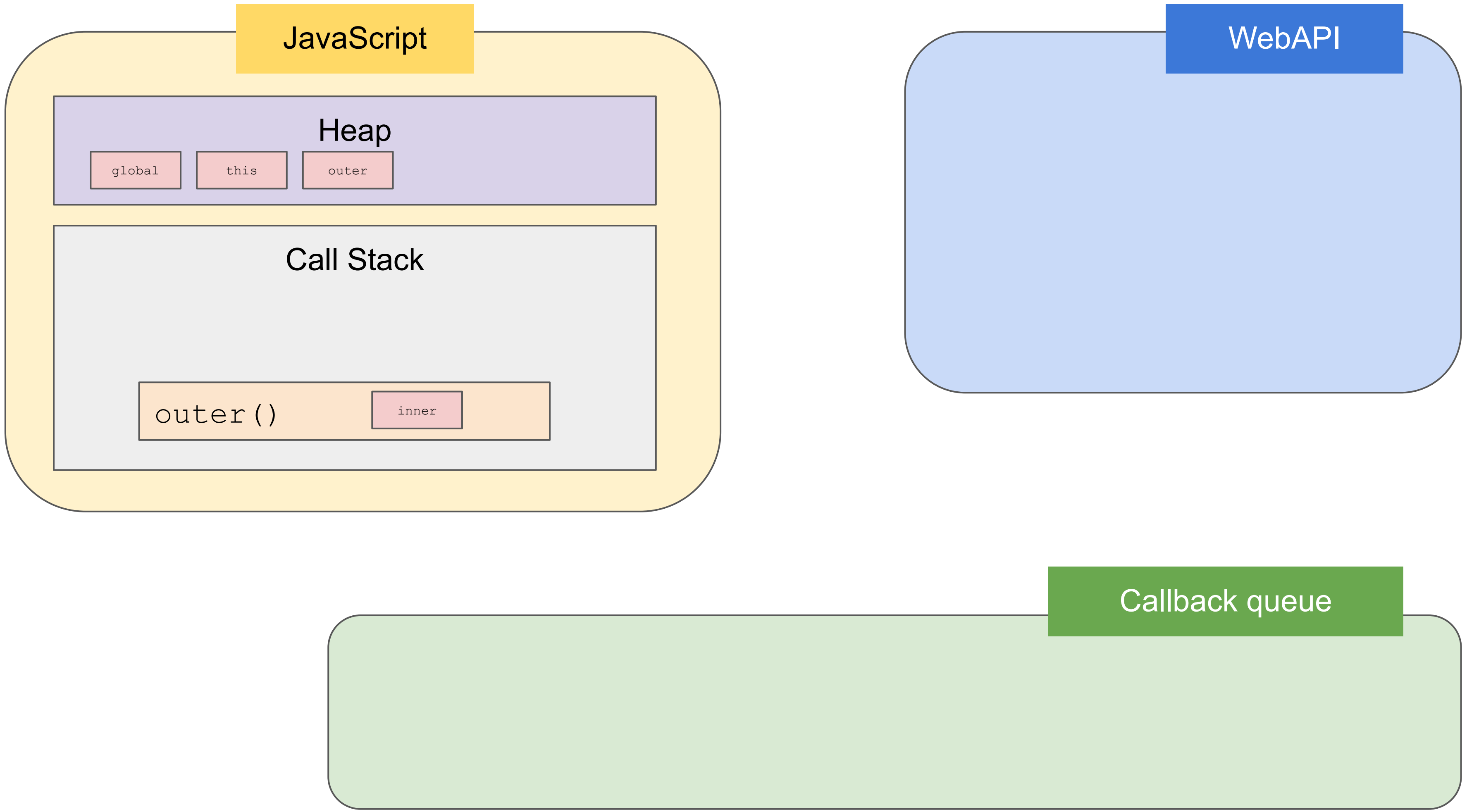
  function inner() {
    // Although the timer is zero, this log occurs after the statement below due to the event loop
    // 3) logs third, since it needed to wait in the call back queue
    setTimeout(() => {
      console.log("Are you listening?")
    }, 0);
    // 1) logs first since it heads straight to the call stack
    console.log("Yes, I'm listening");
  }

  inner();
  // 2) goes to the call stack then resolves
  console.log("I like turtles")
}

outer();

// console
// Yes, I'm listening
// I like turtles
// Are you listening?
// Hello world
```


JavaScript
Heap
global
this
outer
Call Stack
WebAPI
Callback queue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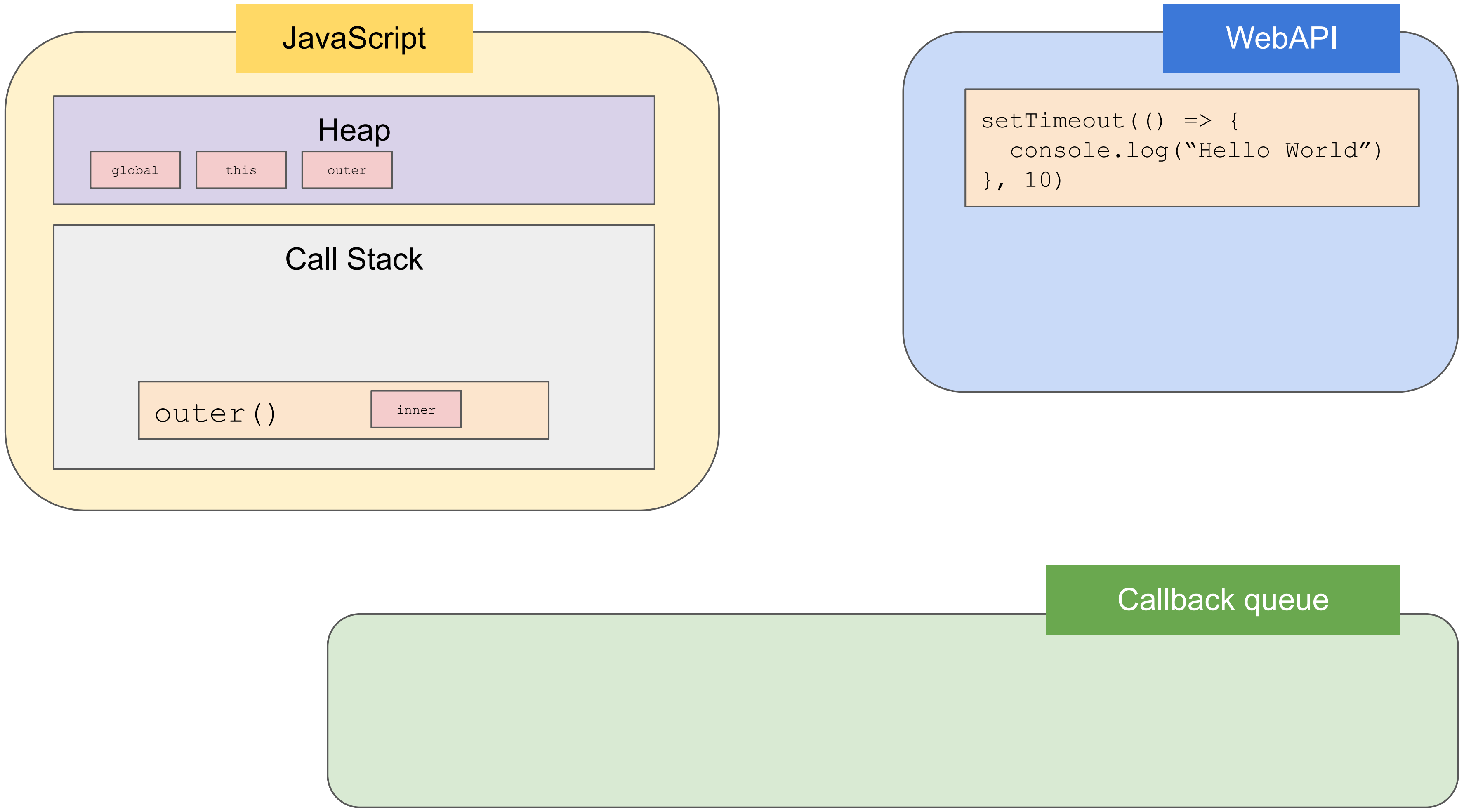
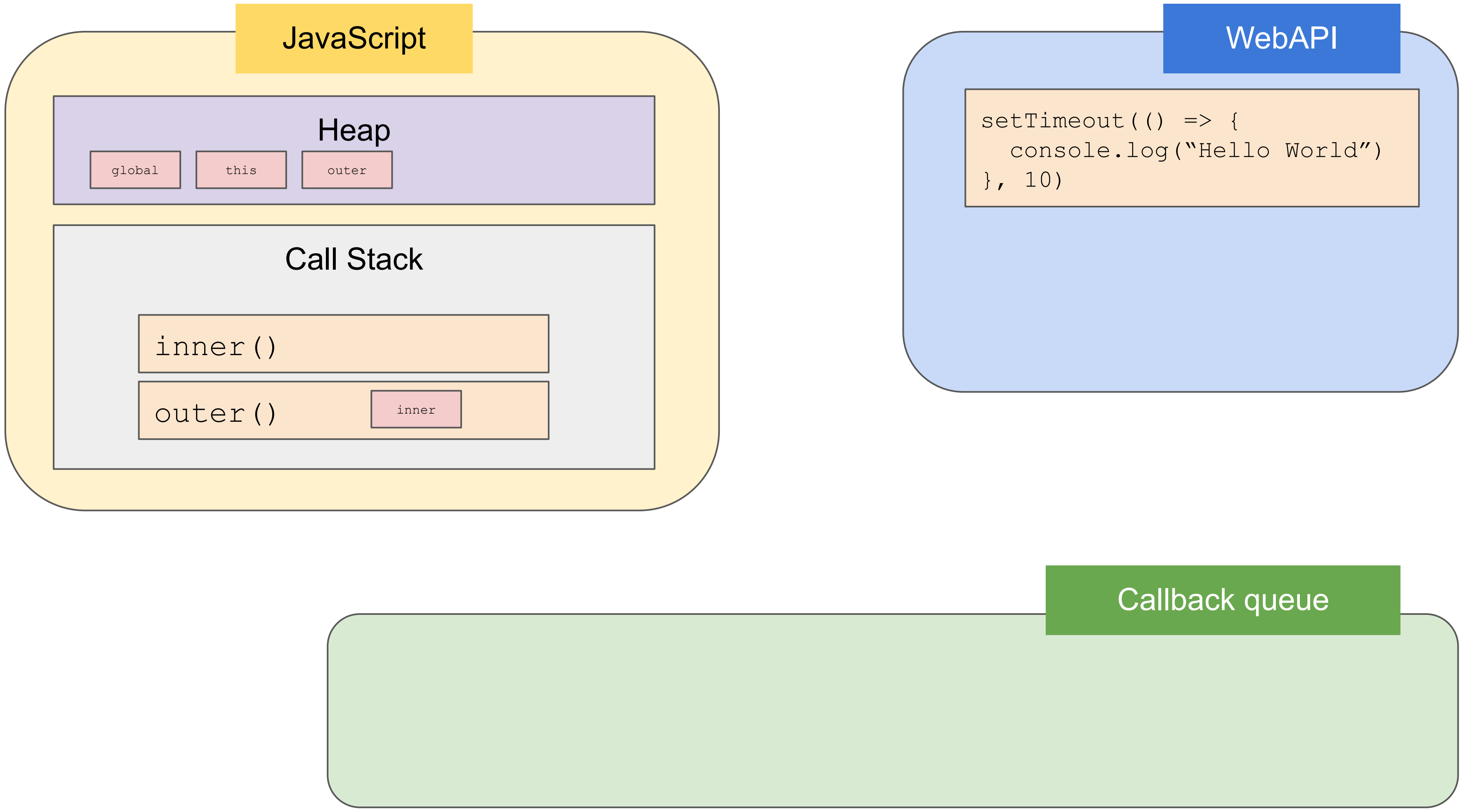


```
setTimeout(() => {
  console.log("Hello World")
}, 10)
```



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}, 10)
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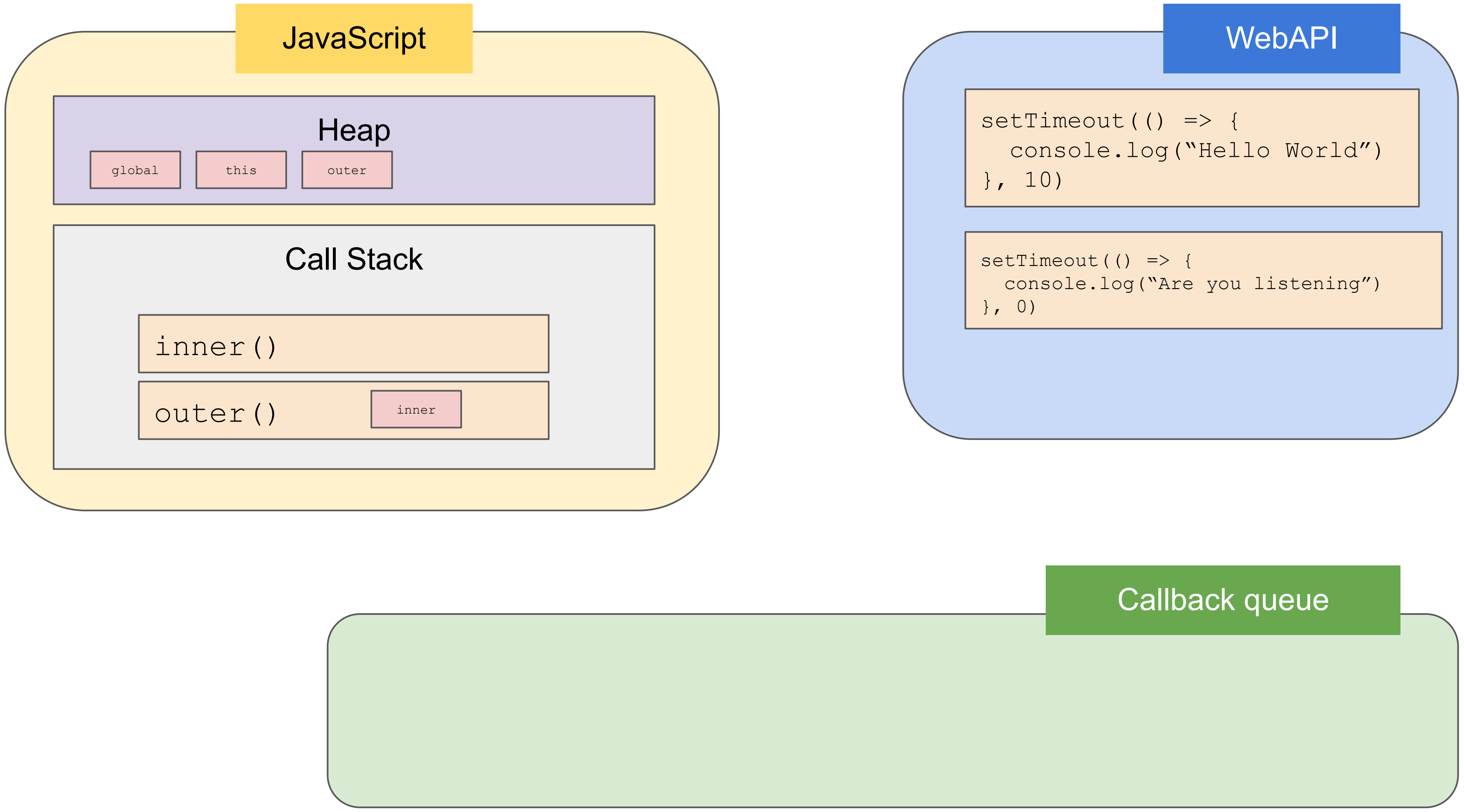

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  console.log("Hello World")
}, 10)
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setTimeout(() => {
  console.log("Are you listening")
}, 0)
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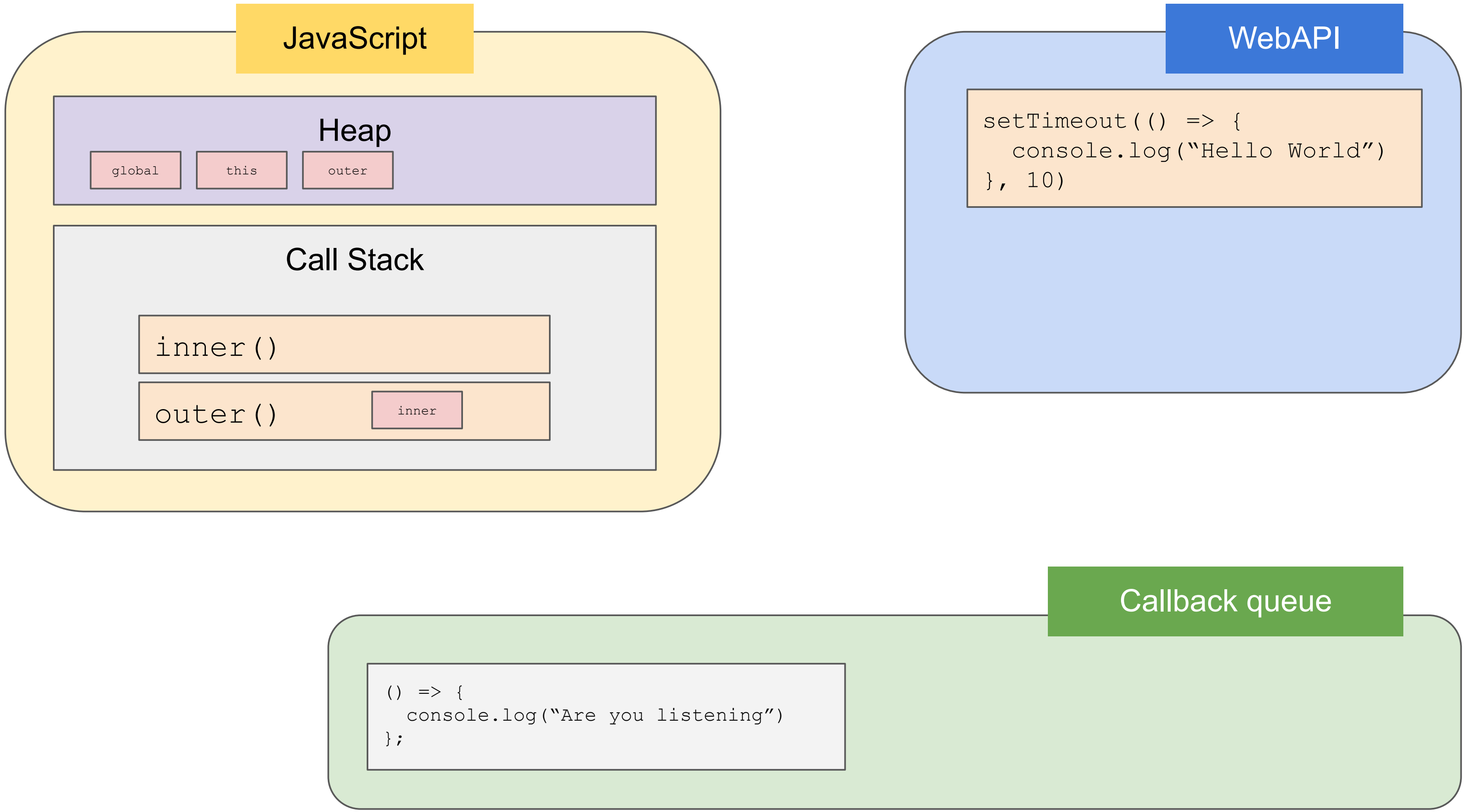

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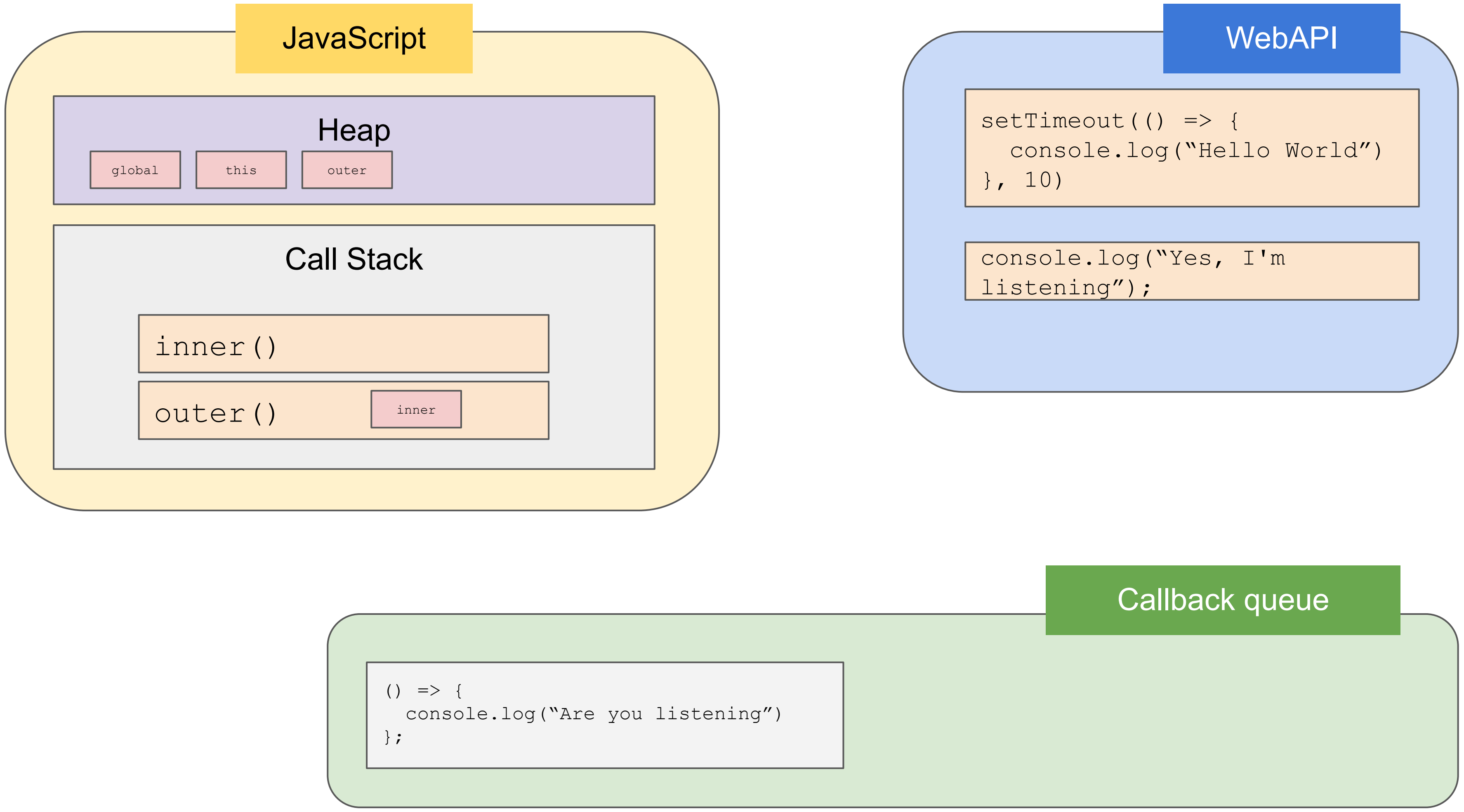
setTimeout(() => {
  console.log("Hello World")
}, 10)
```

```
() => {
  console.log("Are you listening")
};
```



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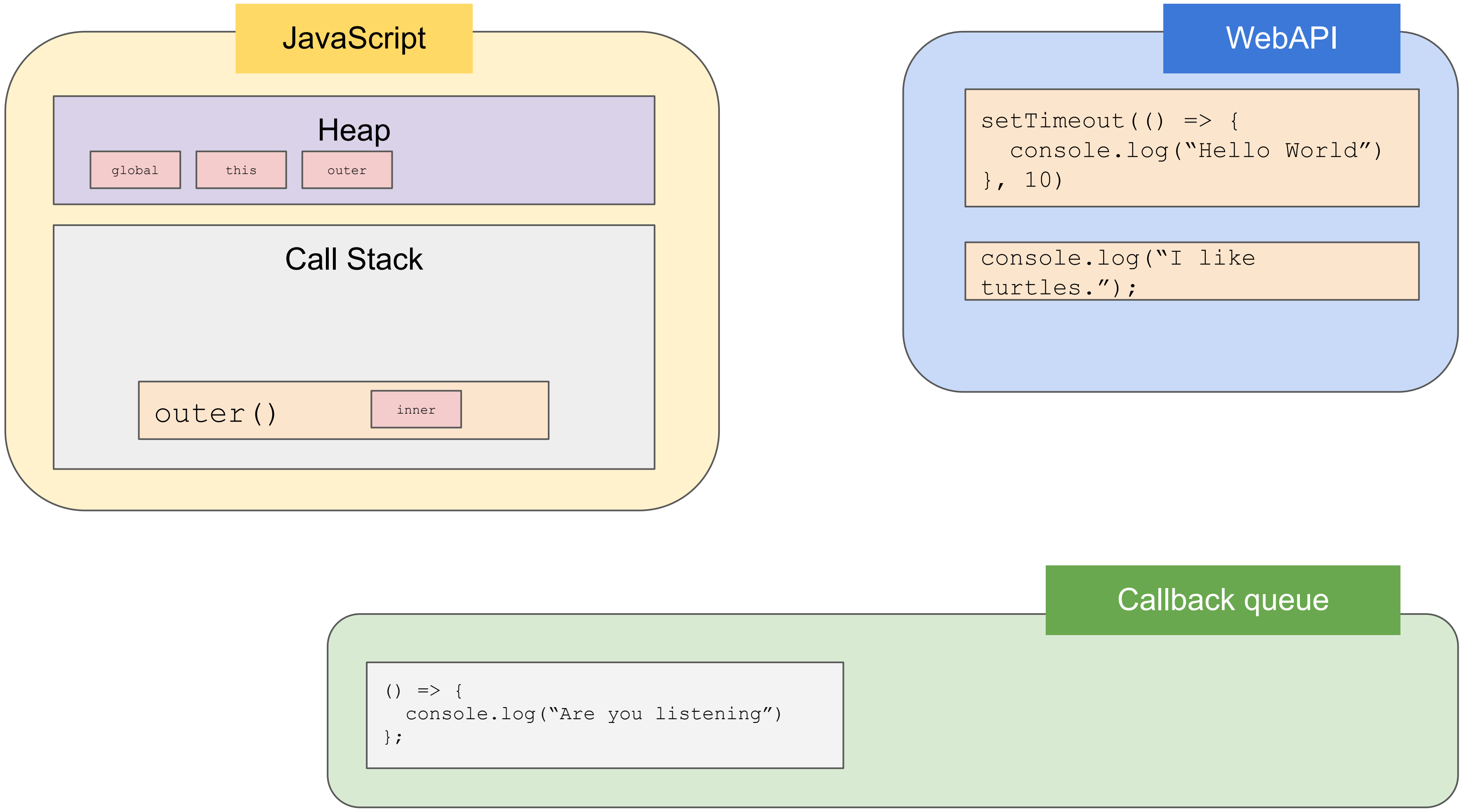
setTimeout(() => {
  console.log("Hello World")
}, 10)
```

```
console.log("Yes, I'm
listening");
```

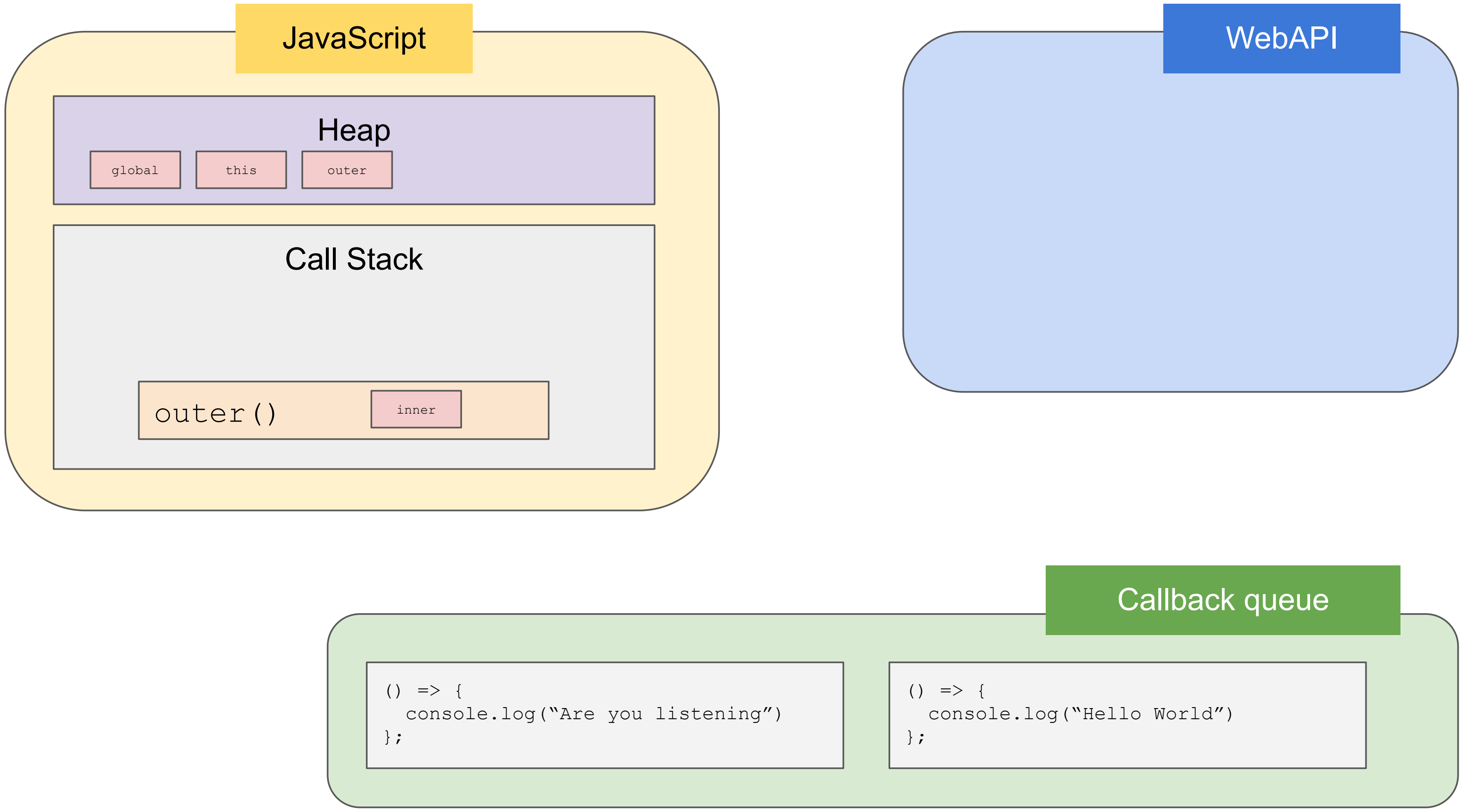
```
() => {
  console.log("Are you listening")
};
```



```
setTimeout(() => {
  console.log(“Hello World”)
}, 10)
```

```
console.log(“I like
turtles.”);
```

```
() => {
  console.log(“Are you listening”)
};
```



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  console.log("Are you listening")
};
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```
() => {
  console.log("Hello World")
};
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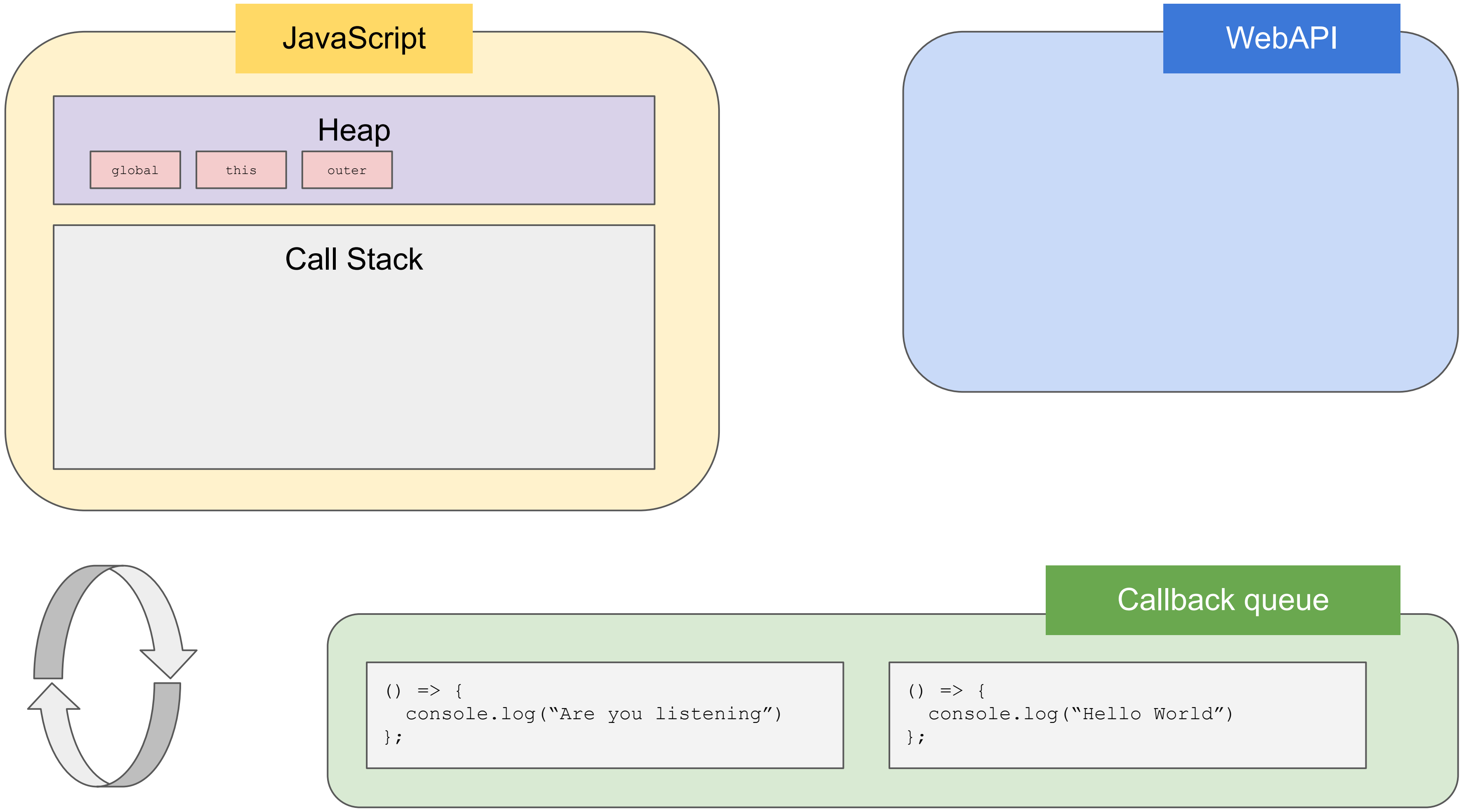

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() => {
  console.log(“Are you listening”)
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() => {
  console.log(“Hello World”)
};
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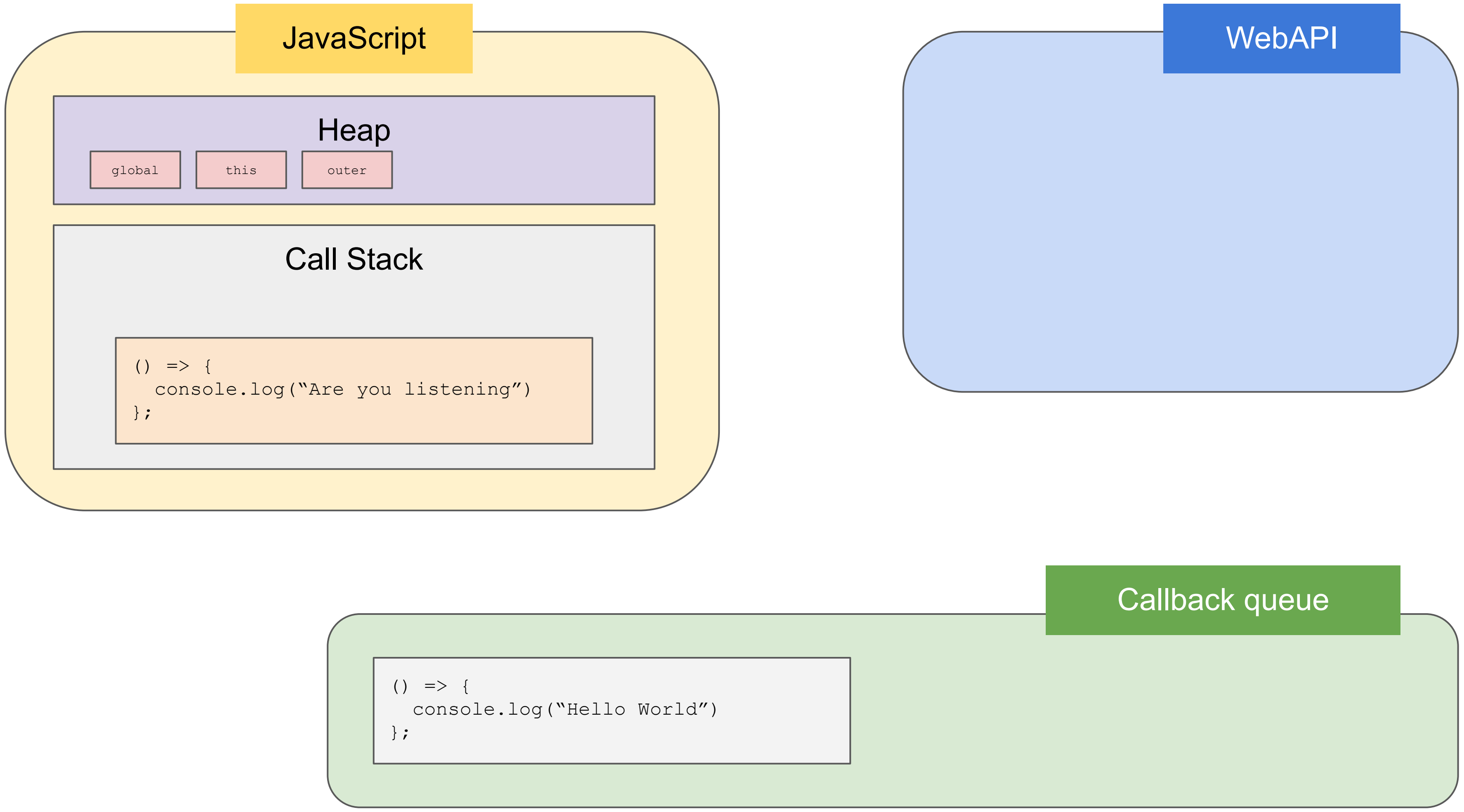

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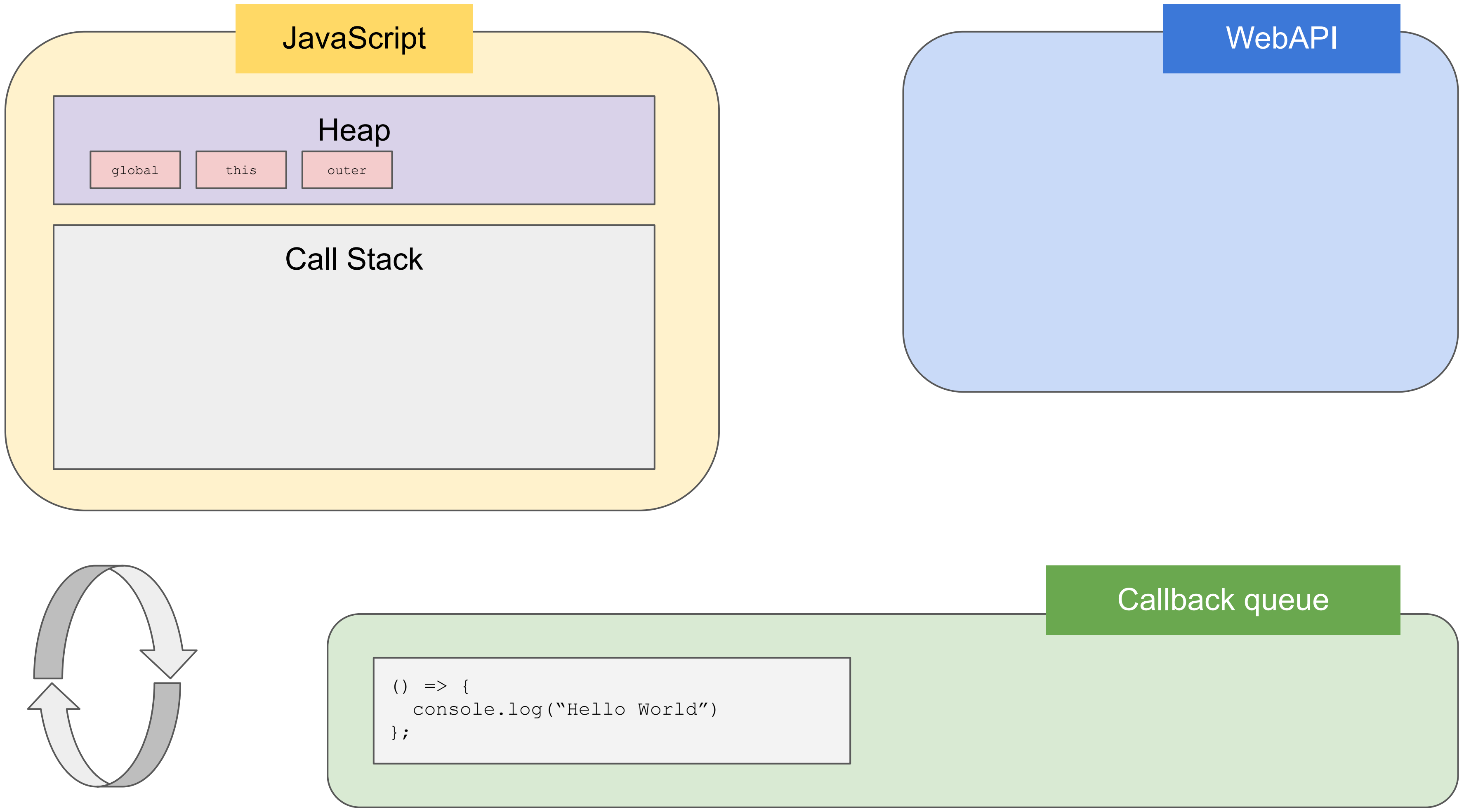

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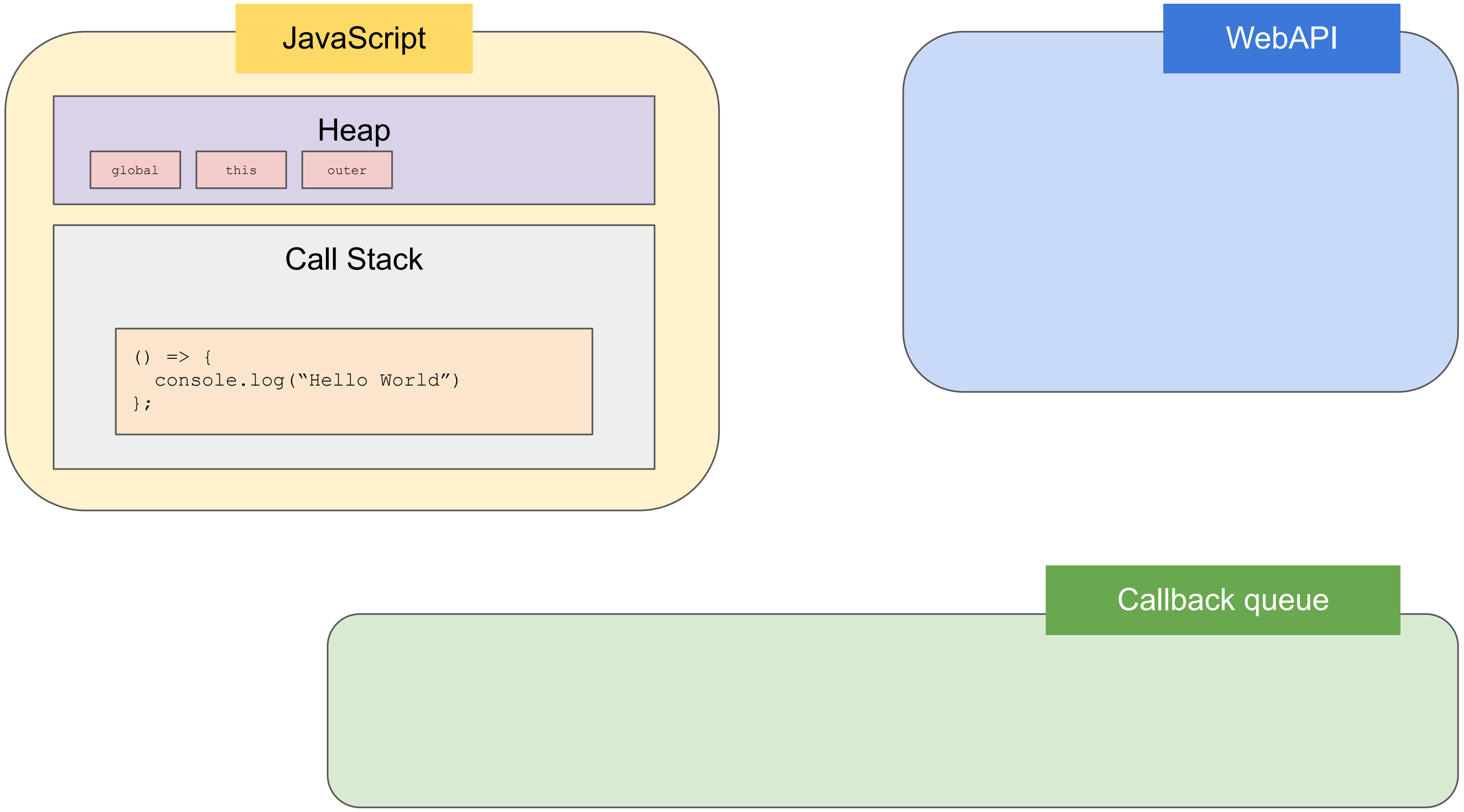

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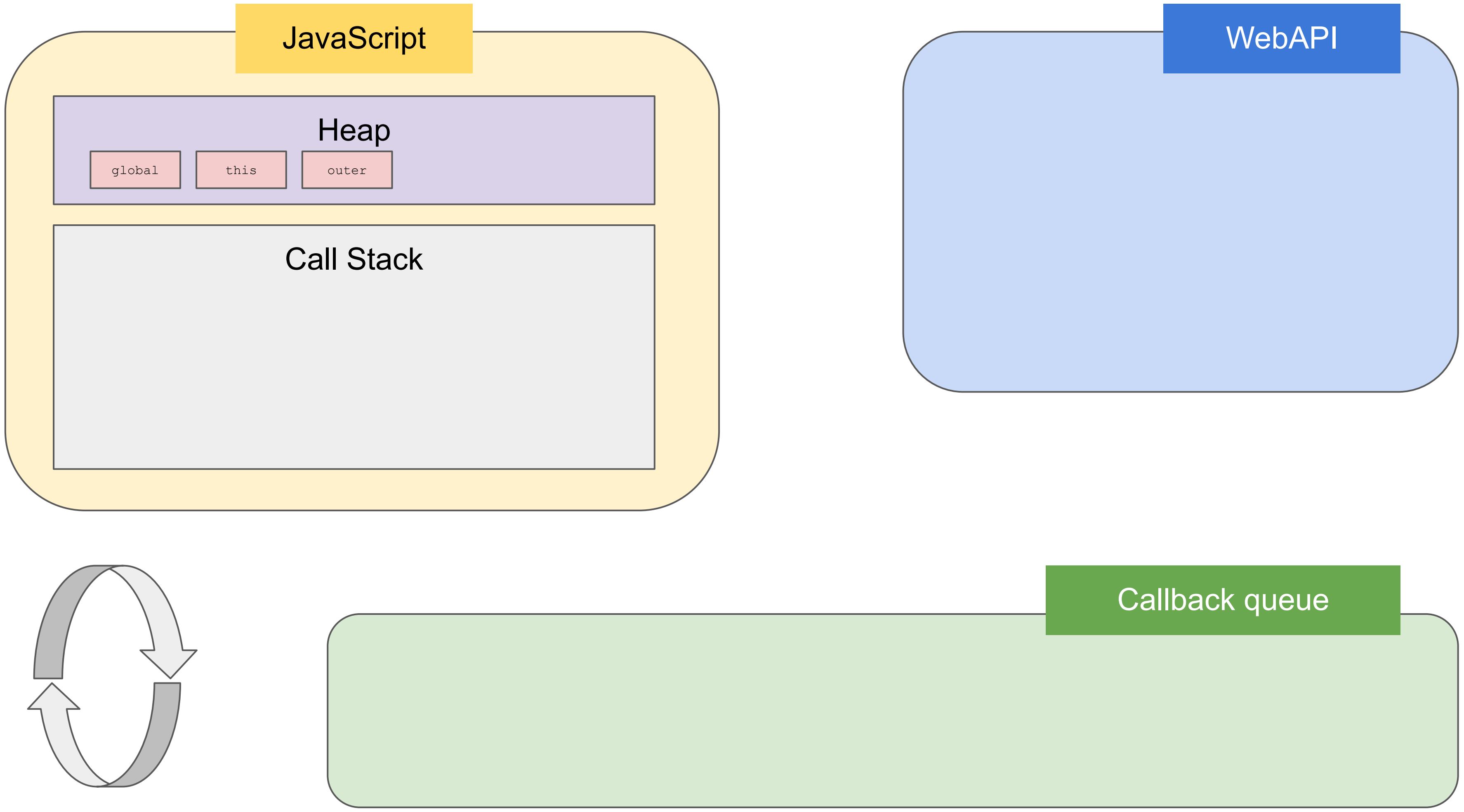
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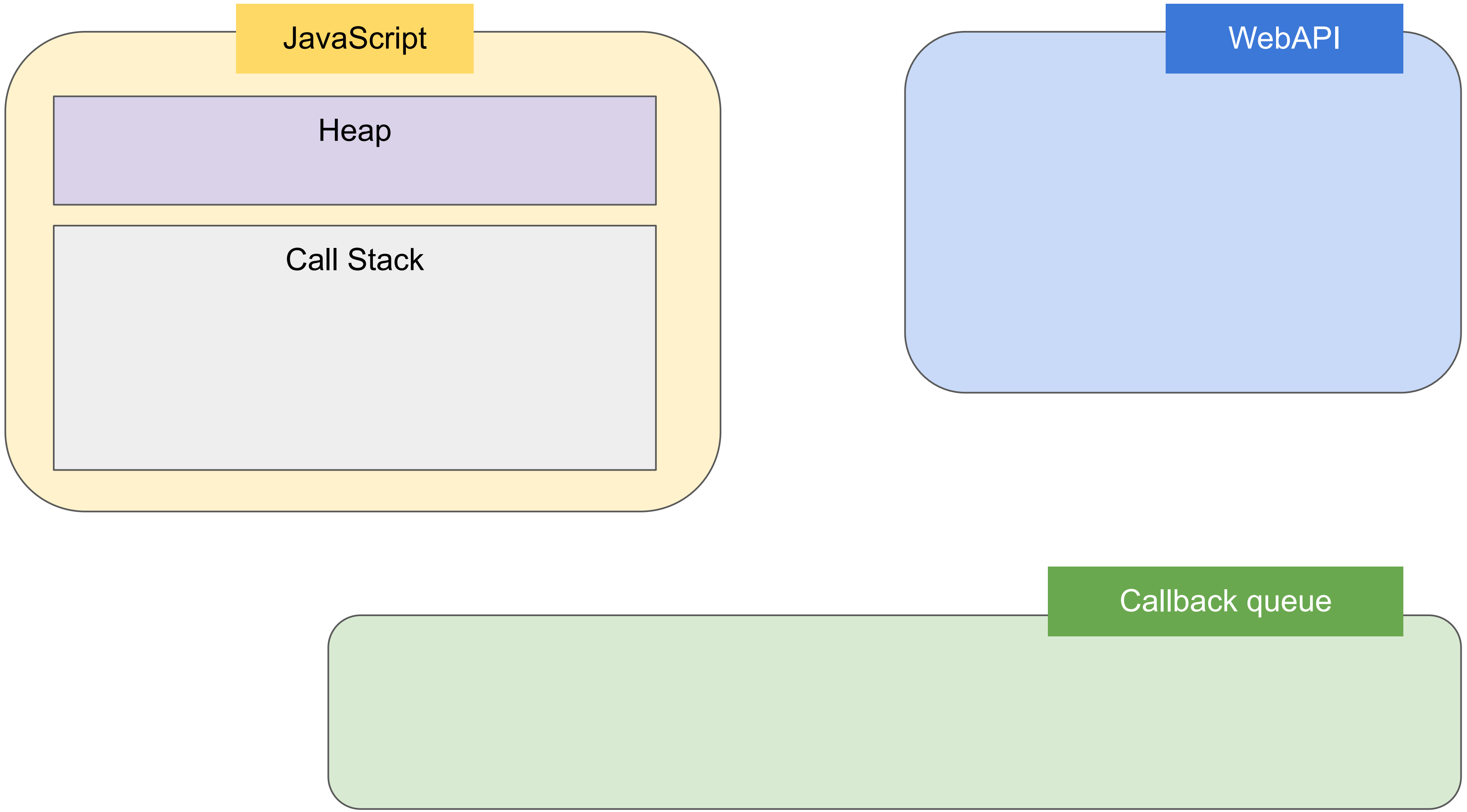
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