Async Philosophy

* Multithread Programming
* Asynchronous Programming
  + Node.js 🡪 JavaScript 🡪 Just One Thread!

Internal: Sync 🡪 Function: Sync

**Best Practice**

void SomeFunction(…)  
{  
 var result = DoSomething(…);  
}

Internal: Async 🡪 Function: Async

**Not Best Practice**

**async** void SomeFunction**Async**(…)  
{  
 …  
 …  
 …  
 var result = **await** DoSomethingAsync(…);  
 …  
 …  
 …  
}

Internal: Async 🡪 Function: Async

**Best Practice**

**async** **Task** SomeFunction**Async**(…)  
{  
 var result = **await** DoSomethingAsync(…);  
}

Internal: Async 🡪 Function: Async

**Best Practice**

**async** **Task<string>** SomeFunction**Async**(…)  
{  
 var result = **await** DoSomethingAsync(…);  
  
 return “Some String”;  
}

Internal: Sync 🡪 Function: Async

**Not Best Practice**

**async** void SomeFunction**Async**(…)  
{  
 var result = **await** **Task.Run**(() => DoSomething(…));  
}

Internal: Sync 🡪 Function: Async

**Not Best Practice**

**async** **Task** SomeFunction**Async**(…)  
{  
 var result = **await** **Task.Run**(() => DoSomething(…));  
}

Internal: Sync 🡪 Function: Async

**Not Best Practice**

**async** **Task<string>** SomeFunction**Async**(…)  
{  
 var result = **await** **Task.Run**(() => DoSomething(…));  
  
 return “Some String”;  
}