Introducing

Concurrency

Asynchronous Operations
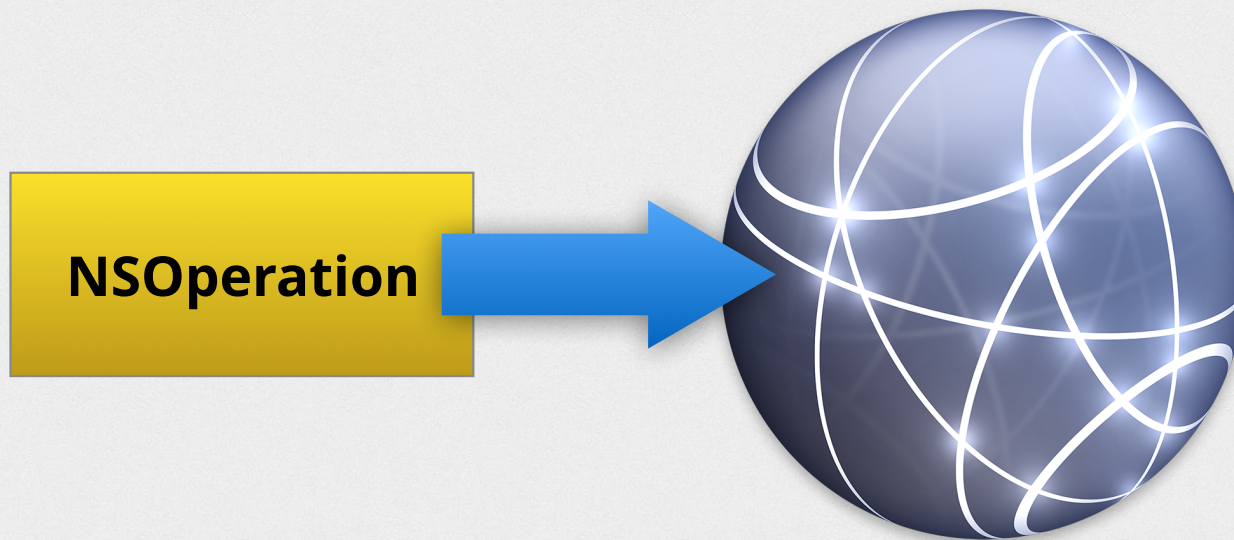
Networking Operation

NSOperation

Networking Operation
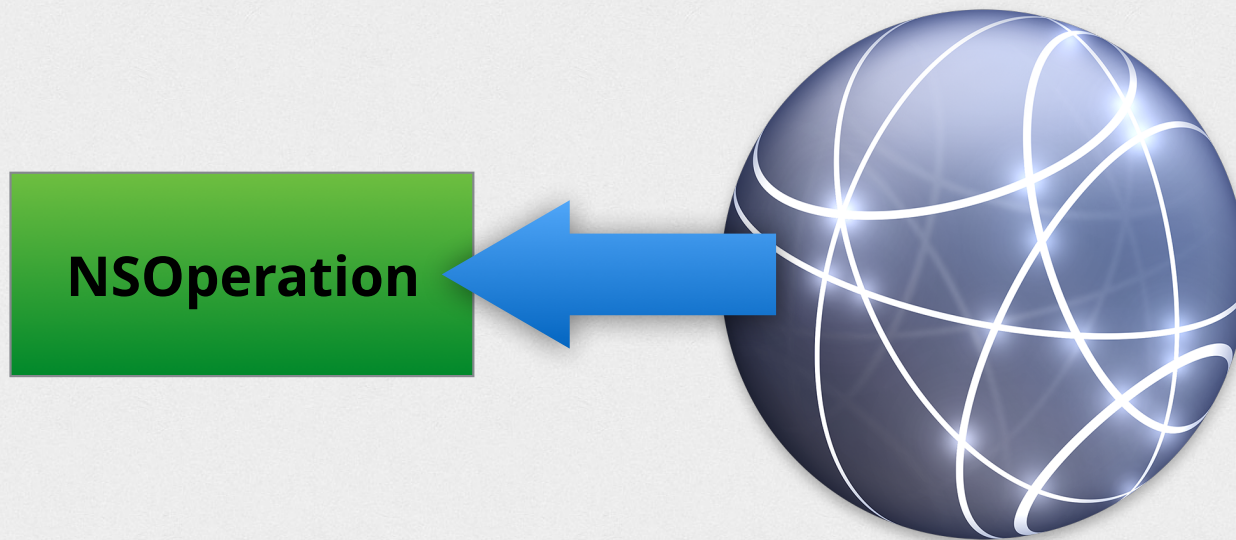
NSOperation

Networking Operation

NSOperation

Networking Operation

NSOperation

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Concurrent NSOperation

```swift
public class NSOperation : NSObject {

  public func start()

  public var asynchronous: Bool { get }

  public var ready: Bool { get }
  public var executing: Bool { get }
  public var finished: Bool { get }
  ...
}
```
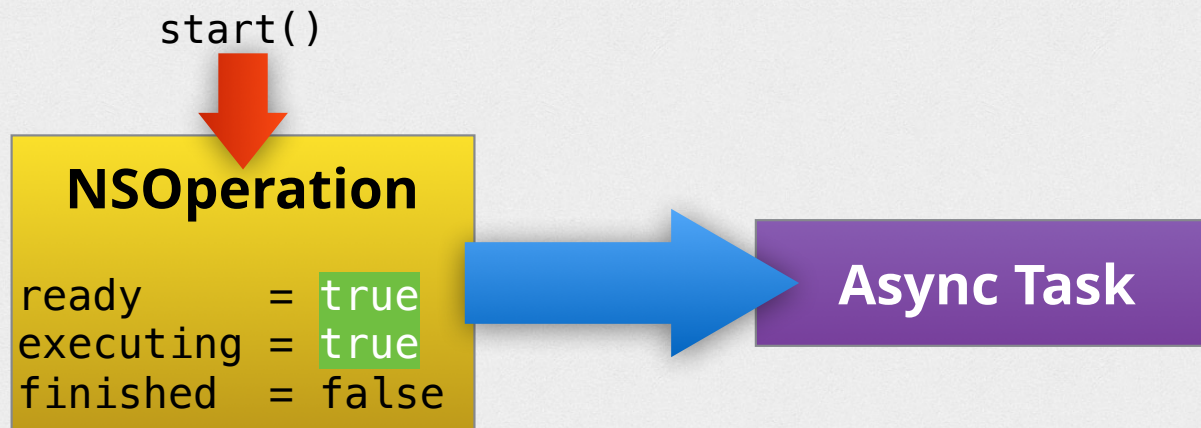
Concurrent Operation

NSOperation

```
ready     = false
executing = false
finished  = false
```

Concurrent Operation

NSOperation

```
ready     = true
executing = false
finished  = false
```
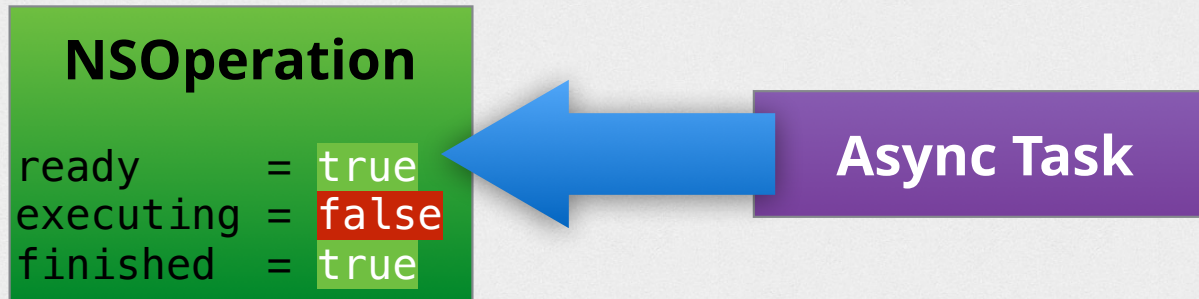
Concurrent Operation

Concurrent Operation

NSOperation

```
ready     = true
executing = true
finished  = false
```

Async Task

Concurrent Operation

NSOperation

```
ready      = true
executing  = false
finished   = true
```

Async Task

KVO Notifications

```swift
var state = State.Ready {
  willSet {
    willChangeValueForKey(newValue.keyPath)
    willChangeValueForKey(state.keyPath)
  }
  didSet {
    didChangeValueForKey(oldValue.keyPath)
    didChangeValueForKey(state.keyPath)
  }
}
```

It's Challenge Time!

```swift
public func asyncAdd(lhs: Int, rhs: Int, callback: (Int) -> ()) {
  callback(lhs + rhs)
}
```

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