### Supporting Cancellation



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### Coming Up



Why Cancelling Requests Is Important

**Cancelling a Request** 

**Handling a Cancelled Request** 



#### Why Cancelling Requests Is Important



#### HttpClient works with async Tasks

- Cancelling such a Task potentially frees up a thread
- The Task is cancelled by us

#### Timeouts must be handled gracefully

- The Task is cancelled due to the timeout



# CancellationTokenSource and CancellationToken



#### CancellationTokenSource

 Manages and sends cancellation notifications

#### CancellationToken

 Exposed through Token property of CancellationTokenSource

Asking for cancellation notifies the receiver of the token that it should cancel its Task





**Cancelling a Request** 





**CancellationTokenSource Initialization** 





**Handling a Cancelled Request** 





**Dealing with Timeouts** 



#### Summary



Manually cancelling a Task potentially frees up a thread

On timeout, HttpClient automatically cancels the Task



#### Summary



## HttpClient is responsible for cancelling its Task(s)

 We can notify it of this request for cancellation by calling Cancel on the CancellationTokenSource providing the CancellationToken

To handle cancellation, catch the TaskCanceledException (or OperationCanceledEception)

