



# Asynchronous programming

# Using `async` and `await`

- Add the **`async`** modifier to method declarations
- Use the **`await`** operator within **`async`** methods to wait for a task to complete without blocking the thread

# Creating Awaitable Methods

- The **await** operator is always used to wait for a task to complete
- If your synchronous method returns **void**, the asynchronous equivalent should return **Task**
- If your synchronous method has a return type of **T**, the asynchronous equivalent should return **Task<T>**

# Async and Web API

- When available, use async method calls in your actions. Typical scenario: database operations
- Await these method calls
- Make the action async returning a `Task<IActionResult>`
- This will free up the process that handles the requests while we're waiting
- This also works with minimal APIs