## Design considerations

In order to develop this demonstration reasonably quickly I have not created an n-tier application, or divided the elements into microservices or the like. I have not done any paging or sorting or filtering on the list. The user interface is vanilla MVC and not especially aesthetically pleasing, and user input validation is minimal. The unit testing only covers the logic class, and is not comprehensive. There is no spec or integration testing.

My design approach is to write the code as if it were an n-tier application, but without the interaction between layers.

As such, the presentation layer is a controller with viewmodels that map from the entities.

The logic is contained in the taskmanager class, representing the business logic layer.

The data layer is represented by the task repository.

I have used a dependency injection pattern, as this is almost essential to create testable code.

The user authentication is performed by the Asp.net identity component.

The database can be initialised using the Update-Database command in Package Manager console, as it uses EF migrations.