To run the program, please follow the following steps:

1. Build solution SlmmProject
2. Host the WebApi : Slmm.Web.Api (this can be done on localhost)
3. Update the App.config for SlmmManager to include:

* Web API base URL
* Current coordinates for the mower
* Length and width of the field
* Direction

<appSettings>

<add key="CurrentX" value="1" />

<add key="CurrentY" value="2" />

<add key="MaxX" value="10" />

<add key="MaxY" value="10" />

<add key="Direction" value="North" />

<add key="baseUrl" value="http://localhost:61177" />

</appSettings>

1. Run the application SlmmManager

Nuget Packages used in this project:

1. Structuremap to perform the dependency injection
2. Swagger to generate the Http client automatically.
3. Nunit to write unit tests
4. Moq: to mock objects during unit tests

Implementation details:

The implementation has been inspired from the State design pattern, as the behaviour of the mower changes when reaching the field borders.

The objects implementing the interface ISlmmMove will define the behaviour of the mower depending on its direction (North, South, West, South) and its position

The system will always move the mower vertically from South to North then moves to next column and changes direction from North to South, and keeps doing that until reaching the last Grid, then makes U turn on last column and comes back to the left side by moving vertically to South/North.

* The logic has been covered by Unit tests.
* A console app has been used to simulate and visualise the execution of the program.