User Stories:

1. User Opens the system:

Pre condition:

User has run the application in the terminal.

Post condition:

User is ready to select a room type.

Action:

User is presented with a welcome message.

Failure:

N/A

2. User Selects the room type:

Pre condition:

The user has been welcomed to the application.

Post Condition:

User picks a room size.

Action:

Users are asked to enter what room they have either '1' or '2', 1 represents a cylinder room and 2 represents rectangle rooms.

Failure:

User enters something other than 1 or 2 -> present them with an error message.

3. User selects Cylinder Room:

Pre condition:

The user has selected 1 from the options (cylinder room)

Post condition:

User enters details and obj created.

Action:

Users are asked 1 by 1 to enter the room radius, height and surface area of windows for the room.

3.1 User Entered details Cylinder room:

Pre condition:

User entered details of the room dimensions.

Post Condition:

Methods called

Action:

Object is created with the room dimensions and then the 3 methods are called

3.2 User gets results:

Pre condition:

Object is created and methods called

Post condition:

Results given to the user.

Action:

Results are printed to the user in the terminal

4. User selects Rectangular room

Pre condition:

The user has selected 2 from the options (rectangular room)

Post condition:

User enters details and obj created.

Action:

User is asked 1 by 1 to enter the room length, width, height and surface area of windows for the room.

4.1 User Entered details Rectangular room:

Pre condition:

User entered details of the room dimensions.

Post Condition:

Methods called

Action:

Object is created with the room dimensions and then the 3 methods are called

4.2 User gets results:

Pre condition:

Object is created and methods called

Post condition:

Results given to the user.

Action:

Results are printed to the user in the terminal