**/\* Assignment No: 2**

**\* Course No : COEN 275**

**\* Question 2 : Use Case Template**

**\* Version : 0.01**

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**Use Case Description 1:**

Use-Case: (Goal): View status and configuration of the Sprinkler System

Actors: Home Owner, Maintenance person

Type: Primary, Essential

Description: Home owner wants to view status and configuration of his Garden Sprinkler System

Cross-references:

Scenario Details (Typical course of events)

|  |  |
| --- | --- |
| Actor Action  *1. Home Owner or Maintenance person clicks on view status of system.* | System Response  The list of events outputs are displayed  *2. The system will display the current group. (The group could be either NORTH, SOUTH, EAST or WEST)*  *3. The system activation status will be displayed.(The status could be either enabled or disabled)*  *4. The status of the sprinkler system will be displayed. (The status of each sprinkler is respective group is displayed, it could be either OK, NOTOK, ON, NOTON)*  *5. The current weather will be displayed. (The displayed weather could be either manually entered by user or stored in the system)*  *6. The amount of water consumed will be displayed. (The total amount of water used for the particular group is displayed along with the schedules)* |

**Use Case Description 2:**

Use-Case: (Goal): Configure Settings of the Sprinkler System

Actors: Customer

Type: Primary, Essential

Description: Home owner wants to configure his Garden Sprinkler System

Cross-references:

Scenario Details (Typical course of events)

|  |  |
| --- | --- |
| Actor Action  *1. The Home Owner clicks on Configure Settings of system.*  *3. The Home Owner enters the pin*  *5. The Home Owner could Activate/Deactivate individual sprinkler(and Sprinkler group)*  *7. The Home Owner selects the default/manual weather* | System Response  *2. The system will check the validity by prompting for the verify pin.*  *4. The system will validate the pin*  *6. The system stores the information of the sprinkler*  *8. The system sets the weather and schedule* |

**Use Case Description 2.1:**

Use-Case: (Goal): Activate the sprinkler in the Sprinkler System

Actors: Customer

Type: Essential

Description: Home owner wants to activate their Garden Sprinkler System

Cross-references:

Scenario Details (Typical course of events)

|  |  |
| --- | --- |
| Actor Action  *1. The Home Owner selects Sprinkler system.*  *3. The Home Owner selects the individual sprinkler*  *5. The Home Owner selects the temperature*  *7. The user enters the watering frequency, date and time* | System Response  *2. The system will enable the user to select individual or group of sprinklers*  *4. The system will save the sprinkler information(ID, group) and enables to select the temperature*  *6. The system validates if the temperature has predefined schedule, if no predefined schedule the system prompts to enter the date and time*  *8. The schedule is set to the sprinklers* |

**Use Case Description 2.2:**

Use-Case: (Goal): Select the weekly temperature for the sprinkler in the Sprinkler System

Actors: Customer

Type: Essential

Description: Home owner wants to select temperature his Garden Sprinkler System

Cross-references:

Scenario Details (Typical course of events)

|  |  |
| --- | --- |
| Actor Action  *1. The Home Owner selects the sprinkler system*  *3. The Home Owner selects the individual sprinkler*  *5. The Home Owner selects the weekly temperature* | System Response  *2. The system will enable the user to select individual or group of sprinklers*  *4. The system will save the sprinkler information(ID, group) and enables to select the temperature*  *6. The system validates if the temperature has predefined schedule, the schedule and watering frequency is set for the set of sprinklers* |

**Use Case Description 2.3:**

Use-Case: (Goal): Selection of temperature for the sprinkler in the Sprinkler System

Actors: Customer

Type: Essential

Description: Home owner wants to select temperature his Garden Sprinkler System

Cross-references:

Scenario Details (Typical course of events)

|  |  |
| --- | --- |
| Actor Action  *1. The Home Owner selects the sprinkler system*  *3. The Home Owner selects the individual sprinkler*  *5. The Home Owner selects the temperature from the range of values given*  *7. The user enters the date and time* | System Response  *2. The system will enable the user to select individual or group of sprinklers*  *4. The system will save the sprinkler information(ID, group) and enables to select the temperature*  *6. The system validates if the selected temperature has predefined schedule, then the predefined schedule and watering frequency is set to the sprinklers*  *8. The schedule is set to the sprinklers* |

**Use Case Description 2.4:**

Use-Case: (Goal): Selection of random temperature which does not have predefined conditions for the sprinkler in the Sprinkler System

Actors: Customer

Type: Essential

Description: Home owner wants to enter temperature manually

Cross-references:

Scenario Details (Typical course of events)

|  |  |
| --- | --- |
| Actor Action  *1. The Home Owner selects the sprinkler system*  *3. The Home Owner selects the individual sprinkler*  *5. The Home Owner selects the temperature from the range of values given*  *7. The user enters the watering frequency, date and time* | System Response  *2. The system will enable the user to select individual or group of sprinklers*  *4. The system will save the sprinkler information(ID, group) and enables to select the temperature*  *6. The system validates if the selected temperature has predefined schedule, then the system prompts to enter watering frequency, date and time*  *8. The schedule is set to the sprinklers* |

**Use Case Description 2.5:**

Use-Case: (Goal): Deactivate the sprinkler in the Sprinkler System

Actors: Customer

Type: Essential

Description: Home owner wants to deactivate his Garden Sprinkler System

Cross-references:

Scenario Details (Typical course of events)

|  |  |
| --- | --- |
| Actor Action  *1. The Home Owner selects Sprinkler system.*  *3. The Home Owner Selects NOTON* | System Response  *2. The system will enable the user to select individual or group of sprinklers*  *4. The system deactivates the sprinkler* |

**Use Case Description 3:**

Use-Case: (Goal): Enable the Sprinkler System

Actors: Customer

Type: Primary, Essential

Description: Home owner wants to enable his Garden Sprinkler System

Cross-references:

Scenario Details (Typical course of events)

|  |  |
| --- | --- |
| Actor Action  *1. The Home Owner clicks on enable system.*  *3. The Home Owner enters the group (or entire system)* | System Response  *2. The system home owner to select group (or entire system) to be enabled*  *4. The system will enable the particular group (or entire system) as it was configured and all the configurations are written to a file* |

**Use Case Description 4:**

Use-Case: (Goal): View Schematic Layout of the Sprinkler System

Actors: Home Owner, Maintenance Person

Type: Primary, Essential

Description: Home Owner or Maintenance Person wants to display layout of the Garden with location of Sprinklers and graph for the water usage.

Cross-references:

Scenario Details (Typical course of events)

|  |  |
| --- | --- |
| Actor Action  *1.The Home Owner clicks on view Schematic Layout*  *3. The Home Owner enters the group*  *5. The Home Owner clicks on display graph* | System Response  *2. The system display the garden layout with the location of sprinklers*  *4. The system will get the related data from the file*  *6. The system will show the water usage in the given group* |

**Use Case Description6:**

Use-Case: (Goal): Troubleshoot the Sprinkler System

Actors: Maintenance Person

Type: Primary, Essential

Description: Maintenance Person wants to troubleshoot the Garden Sprinkler System

Cross-references:

Scenario Details (Typical course of events)

|  |  |
| --- | --- |
| Actor Action  *1.The Maintenance person clicks on troubleshoot*  *3. The maintenance person enters the pin*  *5. The maintenance person clicks on test sprinkler*  *7. The maintenance person replaces the damaged sprinkler(i.e NOTOK)* | System Response  *2. The system will check the validity by prompting for the verify pin*  *4. The system will validate the pin*  *6. The system tests the chosen individual(or group) of sprinkler*  *8. The sprinkler schedules and the values are set to default* |