# **ClassPackage**

*Package in package 'Model'*

ClassPackage

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

## **ClassPackage diagram**

*Class diagram in package 'ClassPackage'*

ClassPackage

Version 1.0

sul10 created on 2024-11-19. Last modified 2024-11-20



ClassPackage

## **AnalysisData**

*Class in package 'ClassPackage'*

AnalysisData

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

| **ATTRIBUTES** |
| --- |
| changeLogs : Private  [ Is static False. Containment is Not Specified. ] |
| performanceMetrics : Private  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Unspecified) records | |
| Source: Public log (Class) AnalysisData  Cardinality: [0..1] | Target: Public eventGenerator (Class) LightingController  Cardinality: [1] |
| Association (direction: Unspecified) provides | |
| Source: Public requester (Class) User  Cardinality: [1] | Target: Public report (Class) AnalysisData  Cardinality: [0..1] |

| **OPERATIONS** |
| --- |
| generateReport () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| recordChanges () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **GameEnvironment**

*Class in package 'ClassPackage'*

GameEnvironment

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

| **ATTRIBUTES** |
| --- |
| currentGame : Private  [ Is static False. Containment is Not Specified. ] |
| environmentSettings : Private  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Unspecified) changeLighting | |
| Source: Public gameEnvironment (Class) GameEnvironment  Cardinality: [1..\*] | Target: Public lightingController (Class) LightingController  Cardinality: [1] |
| Association (direction: Unspecified) synchronizes | |
| Source: Public environment (Class) GameEnvironment  Cardinality: [1] | Target: Public syncController (Class) GameSyncController  Cardinality: [1] |

|  |  |
| --- | --- |
| Association (direction: Unspecified) playsIn | |
| Source: Public player (Class) User  Cardinality: [1] | Target: Public currentEnvironment (Class) GameEnvironment  Cardinality: [1..\*] |

| **OPERATIONS** |
| --- |
| analyzeGameState () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| fetchGameData () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **GameSyncController**

*Class in package 'ClassPackage'*

GameSyncController

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Unspecified) synchronizes | |
| Source: Public environment (Class) GameEnvironment  Cardinality: [1] | Target: Public syncController (Class) GameSyncController  Cardinality: [1] |

| **OPERATIONS** |
| --- |
| syncWithGame () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| triggerLightingChange () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **IoTLightingDevice**

*Class in package 'ClassPackage'*

IoTLightingDevice

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

| **ATTRIBUTES** |
| --- |
| currentBrightness : byte Private  [ Is static False. Containment is Not Specified. ] |
| currentColor : byte Private  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| deviceID : char Private  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| status : int Private  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Unspecified) controls | |
| Source: Public devices (Class) IoTLightingDevice  Cardinality: [0..\*] | Target: Public lightingManager (Class) LightingController  Cardinality: [1] |
| Association (direction: Unspecified) manages | |
| Source: Public owner (Class) User  Cardinality: [1] | Target: Public devices (Class) IoTLightingDevice  Cardinality: [0..\*] |

| **OPERATIONS** |
| --- |
| turnOff () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| turnOn () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| updateFirmware () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **LightingConfiguration**

*Class in package 'ClassPackage'*

LightingConfiguration

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

| **ATTRIBUTES** |
| --- |
| brightnessPattern : Private  [ Is static False. Containment is Not Specified. ] |
| colorPattern : Private  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| presetID : Private  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Unspecified) applies | |
| Source: Public configurations (Class) LightingConfiguration  Cardinality: [0..\*] | Target: Public controller (Class) LightingController  Cardinality: [1] |

| **OPERATIONS** |
| --- |
| loadPreset () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| savePreset () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **LightingController**

*Class in package 'ClassPackage'*

LightingController

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Unspecified) controls | |
| Source: Public devices (Class) IoTLightingDevice  Cardinality: [0..\*] | Target: Public lightingManager (Class) LightingController  Cardinality: [1] |
| Association (direction: Unspecified) changeLighting | |
| Source: Public gameEnvironment (Class) GameEnvironment  Cardinality: [1..\*] | Target: Public lightingController (Class) LightingController  Cardinality: [1] |

|  |  |
| --- | --- |
| Association (direction: Unspecified) applies | |
| Source: Public configurations (Class) LightingConfiguration  Cardinality: [0..\*] | Target: Public controller (Class) LightingController  Cardinality: [1] |

|  |  |
| --- | --- |
| Association (direction: Unspecified) records | |
| Source: Public log (Class) AnalysisData  Cardinality: [0..1] | Target: Public eventGenerator (Class) LightingController  Cardinality: [1] |

| **OPERATIONS** |
| --- |
| adjustLighting () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| applyUserSettings () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **SystemController**

*Class in package 'ClassPackage'*

SystemController

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Unspecified) authenticates | |
| Source: Public account (Class) User  Cardinality: [1] | Target: Public authenticator (Class) SystemController  Cardinality: [1] |

| **OPERATIONS** |
| --- |
| handleDeviceRegistration (deviceID : char ) : boolean Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| manageLogin (id : char , password : char ) : boolean Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **User**

*Class in package 'ClassPackage'*

User

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

| **ATTRIBUTES** |
| --- |
| id : char Private  [ Is static False. Containment is Not Specified. ] |
| password : char Private  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| registeredDevices : char Private  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Unspecified) provides | |
| Source: Public requester (Class) User  Cardinality: [1] | Target: Public report (Class) AnalysisData  Cardinality: [0..1] |
| Association (direction: Unspecified) playsIn | |
| Source: Public player (Class) User  Cardinality: [1] | Target: Public currentEnvironment (Class) GameEnvironment  Cardinality: [1..\*] |

|  |  |
| --- | --- |
| Association (direction: Unspecified) authenticates | |
| Source: Public account (Class) User  Cardinality: [1] | Target: Public authenticator (Class) SystemController  Cardinality: [1] |

|  |  |
| --- | --- |
| Association (direction: Unspecified) interacts | |
| Source: Public user (Class) User  Cardinality: [1] | Target: Public interface (Interface) UserInterface  Cardinality: [1..\*] |

|  |  |
| --- | --- |
| Association (direction: Unspecified) manages | |
| Source: Public owner (Class) User  Cardinality: [1] | Target: Public devices (Class) IoTLightingDevice  Cardinality: [0..\*] |

| **OPERATIONS** |
| --- |
| login () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| registerDevice () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **DesktopApp**

*Interface in package 'ClassPackage'*

DesktopApp

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

Extends UserInterface

| **OUTGOING STRUCTURAL RELATIONSHIPS** |
| --- |
| Generalization from DesktopApp to UserInterface  [ Direction is 'Source -> Destination'. ] |

| **OPERATIONS** |
| --- |
| acceptUserInput () : void Public  Properties:  OverridesGuid = {AC4EE860-B1FE-47b7-9FA4-9C36FDA08098}  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| displayGraphicalDashboard () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| displayStatus () : void Public  Properties:  OverridesGuid = {DC07B63C-1495-46a5-9E92-16337B3D546E}  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **MobileApp**

*Interface in package 'ClassPackage'*

MobileApp

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

Extends UserInterface

| **OUTGOING STRUCTURAL RELATIONSHIPS** |
| --- |
| Generalization from MobileApp to UserInterface  [ Direction is 'Source -> Destination'. ] |

| **OPERATIONS** |
| --- |
| acceptUserInput () : void Public  Properties:  OverridesGuid = {AC4EE860-B1FE-47b7-9FA4-9C36FDA08098}  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| displayStatus () : void Public  Properties:  OverridesGuid = {DC07B63C-1495-46a5-9E92-16337B3D546E}  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| sendPushNotification () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **UserInterface**

*Interface in package 'ClassPackage'*

UserInterface

Version 1.0 Phase 1.0 Proposed

sul10 created on 2024-11-19. Last modified 2024-11-19

| **INCOMING STRUCTURAL RELATIONSHIPS** |
| --- |
| Generalization from MobileApp to UserInterface  [ Direction is 'Source -> Destination'. ] |
| Generalization from DesktopApp to UserInterface  [ Direction is 'Source -> Destination'. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Unspecified) interacts | |
| Source: Public user (Class) User  Cardinality: [1] | Target: Public interface (Interface) UserInterface  Cardinality: [1..\*] |

| **OPERATIONS** |
| --- |
| acceptUserInput () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| displayStatus () : void Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |