

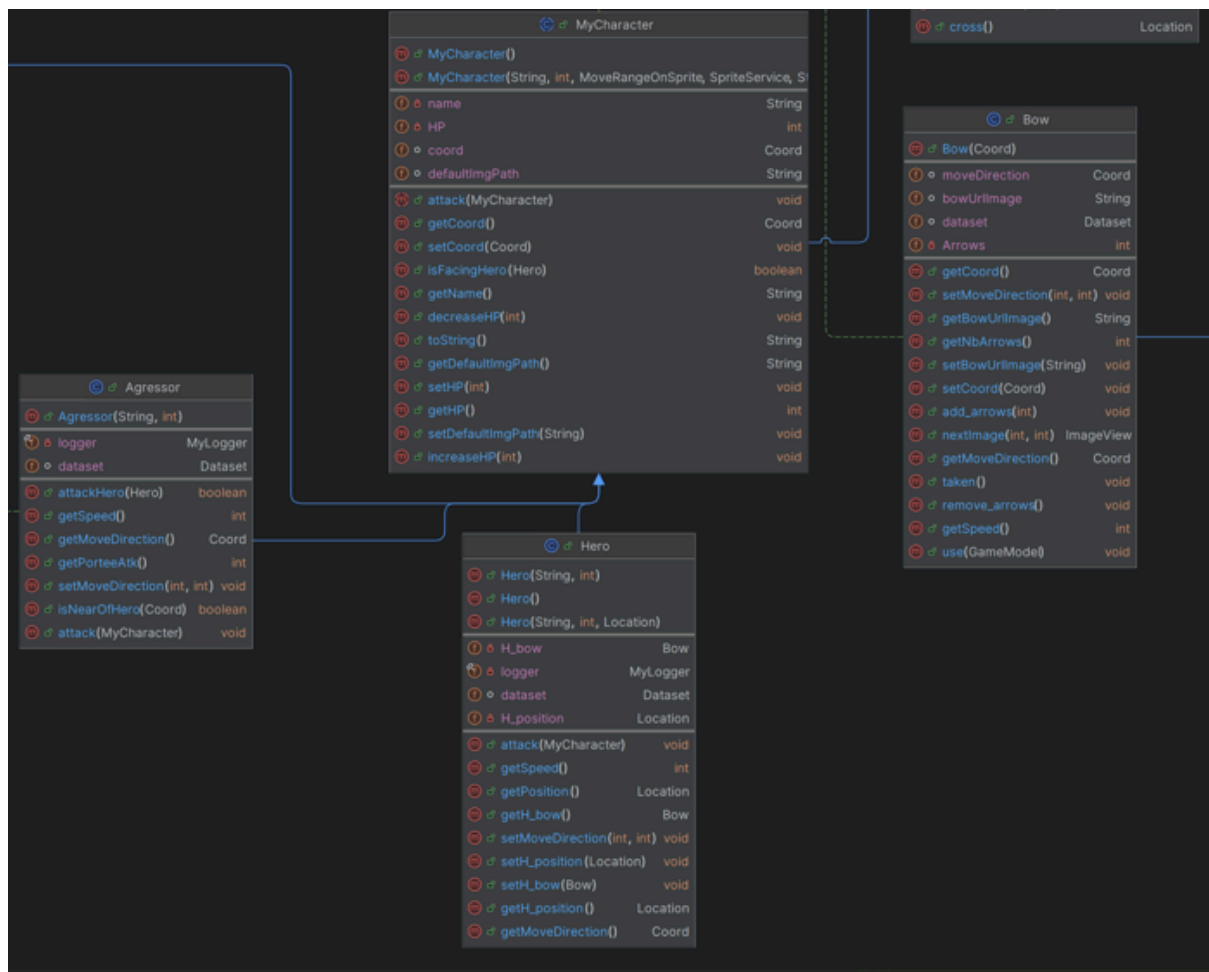
# Document Technique (Architecture)

## 1. Architecture générale (MVC)

- Diagramme UML des classes principales.
- Explication : Modèle (game data), Vue (JavaFX), Contrôleur (interaction).

### Classe gérant les personnages:

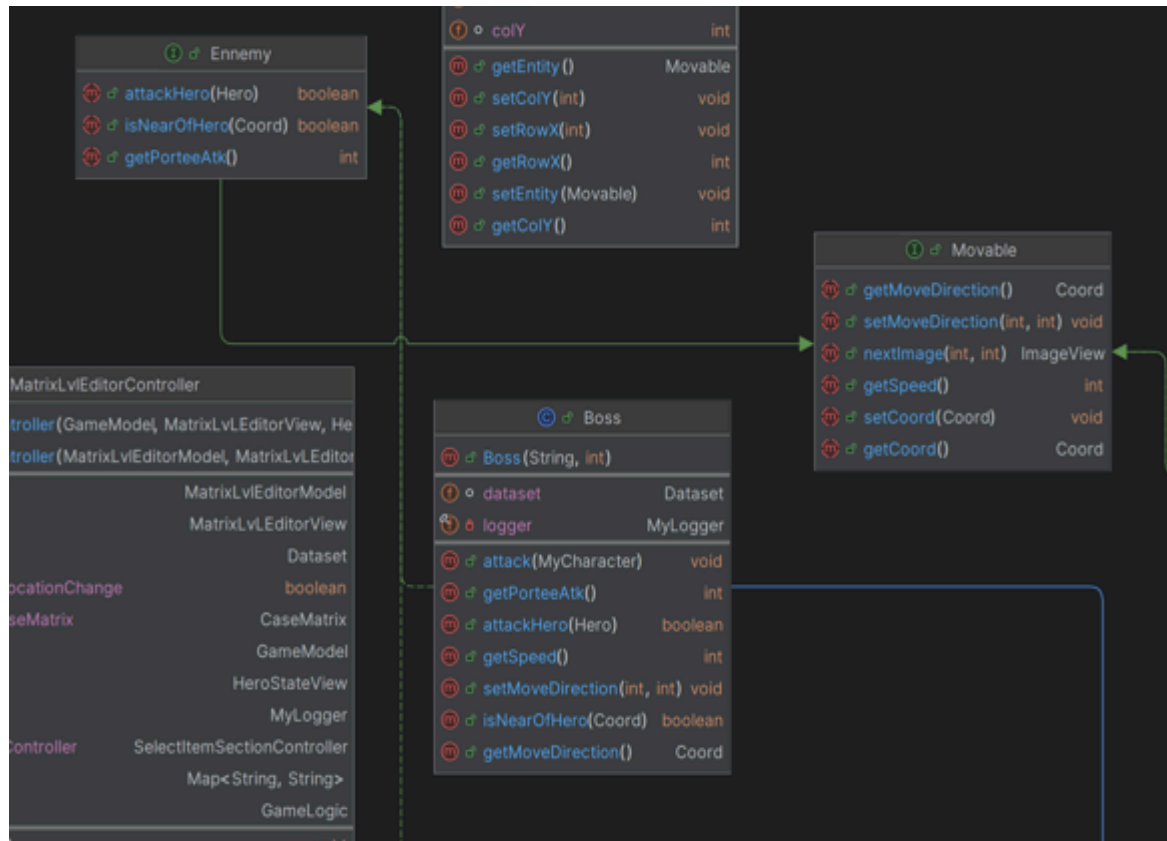
Leurs caractéristique principales communes sont regroupés via MyCharacter



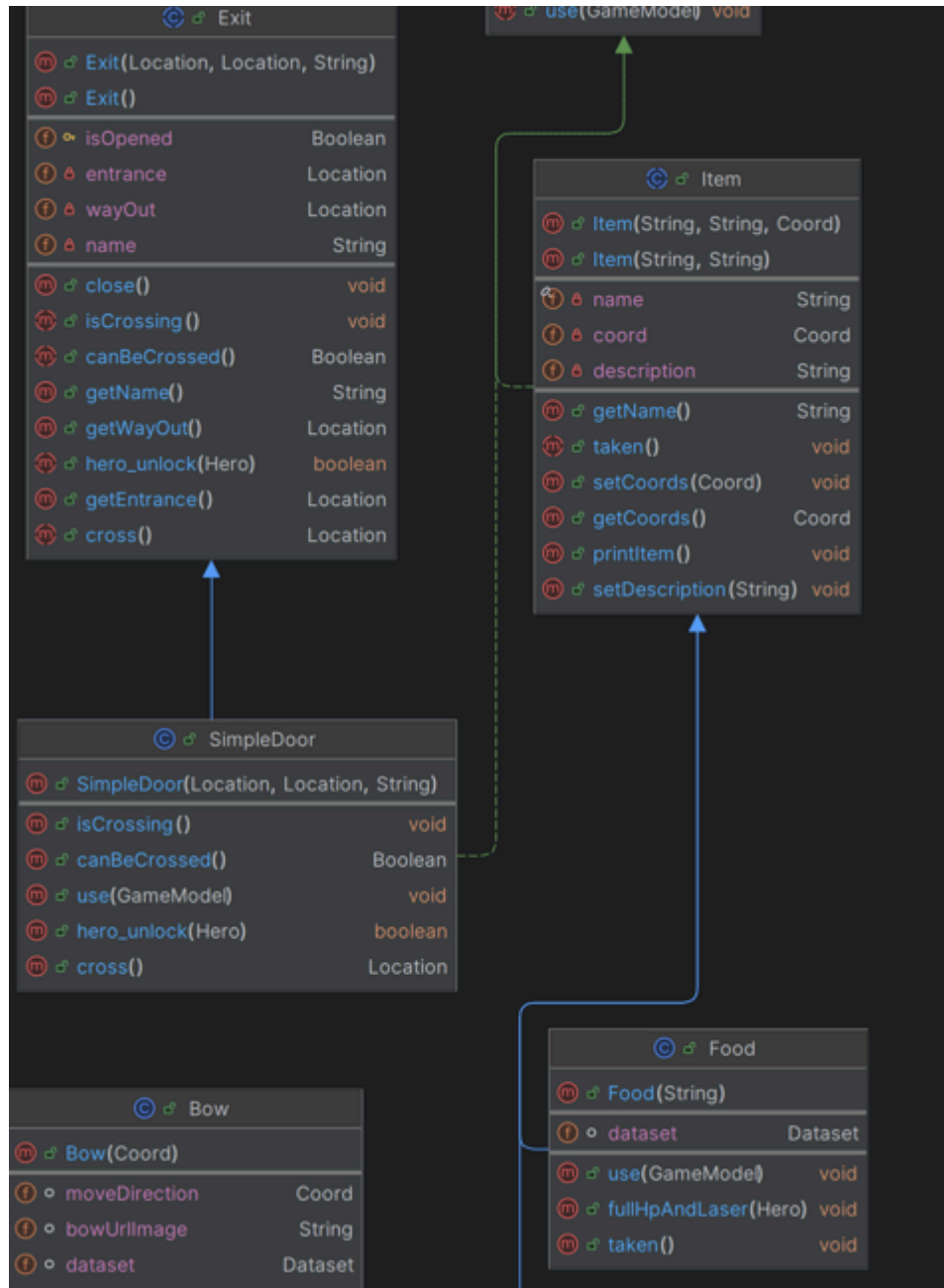
## Classe controlleur gérant le board :

| MatrixLvEditorController                   |                                      |  |
|--|--------------------------------------|--|
| MatrixLvEditorController                   | (GameModel, MatrixLvEditorView, He   |  |
| MatrixLvEditorController                   | (MatrixLvEditorModel, MatrixLvEditor |  |
| model                                      | MatrixLvEditorModel                  |  |
| view                                       | MatrixLvEditorView                   |  |
| dataset                                    | Dataset                              |  |
| restartTimerAfterLocationChange            | boolean                              |  |
| currentSelectedCaseMatrix                  | CaseMatrix                           |  |
| gameModel                                  | GameModel                            |  |
| heroStateView                              | HeroStateView                        |  |
| logger                                     | MyLogger                             |  |
| selectItemSectionController                | SelectItemSectionController          |  |
| configMap                                  | Map<String, String>                  |  |
| gameLogic                                  | GameLogic                            |  |
| setPaneView(Pane)                          | void                                 |  |
| handleImportLv()                           | void                                 |  |
| updateLocation(Location)                   | void                                 |  |
| handleSelectedItem(PropertyChangeEvent)    | void                                 |  |
| propertyChange(PropertyChangeEvent)        | void                                 |  |
| addGridListenersOnView()                   | void                                 |  |
| handleUpdateHeroState(PropertyChangeEvent) | void                                 |  |
| getFocusOnMatrixView()                     | void                                 |  |
| unSubscriptionToModel()                    | void                                 |  |
| updateLocationBis()                        | void                                 |  |
| setNodeListener(Node)                      | void                                 |  |
| handleItemMovement(PropertyChangeEvent)    | void                                 |  |
| handleShowModelCase(PropertyChangeEvent)   | void                                 |  |
| handlePlayLv()                             | void                                 |  |
| handleRemoveItem(PropertyChangeEvent)      | void                                 |  |
| handleKeyPressed(KeyEvent)                 | void                                 |  |
| handleLocationChange(PropertyChangeEvent)  | void                                 |  |
| initController()                           | void                                 |  |
| menuActionLookRank()                       | void                                 |  |
| handleHeroShoot(PropertyChangeEvent)       | void                                 |  |
| setupMenuListeners(Pane)                   | void                                 |  |
| handleEndOfTheGame(PropertyChangeEvent)    | void                                 |  |
| subscriptionToModel()                      | void                                 |  |
| handleGridClick(Node)                      | void                                 |  |
| initModels()                               | void                                 |  |
| initView()                                 | void                                 |  |
| moveLogic(int, int)                        | void                                 |  |
| demandInfos(List<String>)                  | Optional<Map<String, String>>        |  |

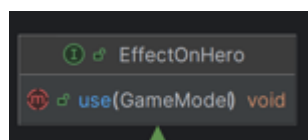
## Interface Movable servant pour les déplacement



**classe SimpleDoor, héritant de EXIT servant pour les changements de planètes.**



## Interface EffectOnHero pour les interactions



| Views4OrientationImgCharacter                                   |                 |
|---|-----------------|
| Views4OrientationImgCharacter(SpriteService, MoveRangeOnSprite) |                 |
| Views4OrientationImgCharacter()                                 |                 |
| logger  | MyLogger        |
| moveLeftSequences   | List<ImageView> |
| moveDownSequences   | List<ImageView> |
| lastDirection   | Direction       |
| currentMoveSequence   | List<ImageView> |
| moveUpSequences   | List<ImageView> |
| spriteService   | SpriteService   |
| currentFrameIndex   | int             |
| moveRightSequences  | List<ImageView> |
| updateCurrentSequence(Direction)                                | void            |
| directionToCoord(Direction)                                     | Coord           |
| setLastDirectionCoord(Coord)                                    | void            |
| nextImage(int, int)   | ImageView       |
| getLastDirection()  | Direction       |
| coordToDirection(int, int)                                      | Direction       |
| setLastDirection(Direction)                                     | void            |

| Movable                    |           |
|----------------------------|-----------|
| getMoveDirection()         | Coord     |
| setMoveDirection(int, int) | void      |
| nextImage(int, int)        | ImageView |
| getSpeed()                 | int       |
| setCoord(Coord)            | void      |
| getCoord()                 | Coord     |

|  |                 |
|--|-----------------|
| getRangeSprite(Coord)                        | List<ImageView> |
| createAnimatedSprite(double, double, double) | ImageView       |
| AnimatedSprite(SpriteService, Pane)          | void            |
| getSpriteCol(int)                            | List<ImageView> |
| saveSprite(Image, int, int, int, String)     | void            |
| getAllSprite(SpriteService, Pane)            | void            |
| getSpriteRow(int)                            | List<ImageView> |

| MyCharacter   |         |
|---|---------|
| MyCharacter()   |         |
| MyCharacter(String, int, MoveRangeOnSprite, SpriteService, S) |         |
| name  | String  |
| HP  | int     |
| coord   | Coord   |
| defaultImgPath  | String  |
| attack(MyCharacter)   | void    |
| getCoord()  | Coord   |
| setCoord(Coord)   | void    |
| isFacingHero(Hero)  | boolean |
| getName()   | String  |
| decreaseHP(int)   | void    |
| toString()  | String  |
| getDefaultImgPath()   | String  |
| setHP(int)  | void    |
| getHP()   | int     |
| setDefaultImgPath(String)                                     | void    |
| increaseHP(int)   | void    |

| SimpleDoor                          |      |
|-------------------------------------|------|
| SimpleDoor(Location, Location, Stri |      |
| isCrossing()                        |      |
| canBeCrossed()                      | Bool |
| use(GameModel)                      |      |
| hero_unlock(Hero)                   | boo  |
| cross()                             | Loca |





































| Bow                        |           |
|----------------------------|-----------|
| Bow(Coord)                 |           |
| moveDirection              | Coord     |
| bowUrlImage                | String    |
| dataset                    | Dataset   |
| Arrows                     | int       |
| getCoord()                 | Coord     |
| setMoveDirection(int, int) | void      |
| getBowUrlImage()           | String    |
| getNbArrows()              | int       |
| setBowUrlImage(String)     | void      |
| setCoord(Coord)            | void      |
| add_arrows(int)            | void      |
| nextImage(int, int)        | ImageView |
| getMoveDirection()         | Coord     |
| taken()                    | void      |
| remove_arrows()            | void      |
| getSpeed()                 | int       |
| use(GameModel)             | void      |

| Agressor              |          |
|-----------------------|----------|
| Agressor(String, int) |          |
| logger                | MyLogger |
| dataset               | Dataset  |
| attackHero(Hero)      | boolean  |
| getSpeed()            | int      |
| getMoveDirection()    | Coord    |
| getPorteeAtk()        | int      |

| Hero |  |
|------|--|
|------|--|

| Dataset   |  |                             |
|---|--|-----------------------------|
|    | <b>Dataset()</b>                           |                             |
|    | ◦ listeMesured                             | List<Pair<String, Double>>  |
|    | △ mesuref                                  | Map<String, Float>          |
|    | ◦ listeMsg                                 | List<Pair<String, String>>  |
|    | △ mapString                                | Map<String, String>         |
|    | △ data                                     | List<String>                |
|    | ◦ listeMeasure                             | List<Pair<String, Integer>> |
|    | △ measured                                 | Map<String, Double>         |
|    | △ instance                                 | Dataset                     |
|    | △ measure                                  | Map<String, Integer>        |
|    | △ configMap                                | Map<String, String>         |
|   |  |                             |
|    | ↗ addMeasure(String, Integer)              | void                        |
|    | ↗ getInstance()                            | Dataset                     |
|    | ↗ initStrings(List<Pair<String, String>>)  | void                        |
|    | ↗ initMesured(List<Pair<String, Double>>)  | void                        |
|    | ↗ getMeasure(String)                       | Integer                     |
|    | △ configScreenSize()                       | void                        |
|    | ↗ addMeasuref(String, Float)               | void                        |
|    | ↗ getAllMesuresf()                         | Map<String, Float>          |
|    | △ configLang()                             | void                        |
|    | ↗ addMesured(String, Double)               | void                        |
|    | ↗ initConfiguration()                      | void                        |
|    | ↗ addData(String)                          | void                        |
|    | ↗ setConfigMap(Map<String, String>)        | void                        |
|  | ↗ initMesuref(List<Pair<String, Float>>)   | void                        |
|  | ↗ addString(String, String)                | void                        |
|  | ↗ getData()                                | List<String>                |
|  | ↗ initMesures(List<Pair<String, Integer>>) | void                        |
|  | ↗ getAllStrings()                          | Map<String, String>         |
|  | ↗ getAllMesuresd()                         | Map<String, Double>         |
|  | ↗ getConfigMap()                           | Map<String, String>         |
|  | ↗ toInt(String)                            | int                         |
|  | ↗ getMesured(String)                       | Double                      |
|  | ↗ makePair(String, String)                 | Pair<String, String>        |
|  | ↗ getAllMesures()                          | Map<String, Integer>        |
|  | ↗ getString(String)                        | String                      |
|  | ↗ getMeasuref(String)                      | Float                       |

CaseMatrix

CaseMatrix(String, Object, int, int, int, int)

CaseMatrix(String, Coord)

CaseMatrix(String, int, int)

CaseMatrix()

isOccupiedboolean

coordColint

classNameOfItemString

urlImgToShowString

classOfItemsObject

coordRowint

widthint

heightint

getWidth()int

setClassOfItems(Object)void

isOccupied()boolean

setCoordCol(int)void

toString()String

getHeight()int

getClassNameOfItem()String

getUrlImgToShow()String

getCoordCol()int

setClassNameOfItem(String)void

setOccupied(boolean)void

setCoordRow(int)void

setHeight(int)void

getClassOfItems()Object

setUrlImgToShow(String)void

getCoordRow()int

setWidth(int)void

Coord

Coord(int, int)

Coord()

colint

rowint

setCol(int)void

toString()String

addCoord(Coord, Coord)Coord

getCol()int

subCoord(Coord, Coord)Coord

getRow()int

setRow(int)void

Commands

execute()void

|                      |
|----------------------|
| Decor                |
| Decor(String)        |
| name String          |
| setName(String) void |
| getName() String     |

|                      |
|----------------------|
| Score                |
| Score(String, int)   |
| name String          |
| score int            |
| setScore(int) void   |
| getName() String     |
| setName(String) void |
| getScore() int       |

|                           |
|---------------------------|
| Direction                 |
| Direction()               |
| RIGHT                     |
| DOWN                      |
| UP                        |
| LEFT                      |
| valueOf(String) Direction |
| values() Direction[]      |

|                     |
|---------------------|
| SpriteDem           |
| SpriteDem()         |
| main(String[]) void |
| start(Stage) void   |

|   |
|---|
| PopupMsg                                  |
| PopupMsg()                                |
| showScores(List<Score>) void              |
| showMessage(String) void                  |
| demanderInfosConfig() Map<String, String> |

|                               |
|-------------------------------|
| Location                      |
| Location(String, String, int) |
| indexOnWorldMap int           |
| name String                   |
| description String            |
| getIndexOnWorldMap() int      |
| getName() String              |
| getDescription() String       |

|            |
|------------|
| SpriteDemo |
|------------|



MoveSequences

MoveSequences(SpriteService, List<ImageView>, List<ImageView>)

spriteService

SpriteService

moveRightSequences

List<ImageView>

moveUpSequences

List<ImageView>

moveDownSequences

List<ImageView>

currentMoveSequence

List<ImageView>

moveLeftSequences

List<ImageView>

setMoveLeftSequences(List<ImageView>)

void

setMoveRightSequences(List<ImageView>)

void

getMoveDownSequences()

List<ImageView>

getMoveRightSequences()

List<ImageView>

getMoveLeftSequences()

List<ImageView>

setMoveDownSequences(List<ImageView>)

void

getMoveUpSequences()

List<ImageView>

setMoveUpSequences(List<ImageView>)

void

String

String) void

String

MyLogger

Dataset

int

MoveRangeOnSprite

MoveRangeOnSprite(Coord, Coord, Coord, Coord)

spriteMoveLeftRange

Coord

spriteMoveUpRange

Coord

spriteMoveDownRange

Coord

spriteMoveRightRange

Coord

setSpriteMoveUpRange(Coord)

void

getSpriteMoveDownRange()

Coord

setSpriteMoveRightRange(Coord)

void

setSpriteMoveDownRange(Coord)

void

getSpriteMoveLeftRange()

Coord

getSpriteMoveUpRange()

Coord

getSpriteMoveRightRange()

Coord

setSpriteMoveLeftRange(Coord)

void

SelectItemSectionModel

SelectItemSectionModel()

itemsOfSelectionMenu

List<CaseMatrix>

currentSelectedItem

CaseMatrix

logger

Logger

setCurrentSelectedItem(CaseMatrix)

void

removeItem(CaseMatrix)

void

getItemsOfSelectionMenu()

List<CaseMatrix>

setItemsOfSelectionMenu(List<CaseMatrix>)

void

getCurrentSelectedItem()

CaseMatrix

toString()

String

addItem(CaseMatrix)

void

| SelectItemSectionController   |                        |
|---|------------------------|
| SelectItemSectionController(SelectItemSectionModel, SelectItemView) |                        |
| logger  | Logger                 |
| view  | SelectItemView         |
| dataset   | Dataset                |
| model   | SelectItemSectionModel |
| addListenerToItems()  | void                   |
| onItemClicked(CaseMatrix)   | void                   |

| SelectItemView                    |                      |
|-----------------------------------|----------------------|
| SelectItemView()                  |                      |
| logger                            | MyLogger             |
| vbox                              | VBox                 |
| callback                          | Consumer<CaseMatrix> |
| getVbox()                         | VBox                 |
| setCallback(Consumer<CaseMatrix>) | void                 |
| getCallback()                     | Consumer<CaseMatrix> |
| addItem(String, Object)           | void                 |
| setVbox(VBox)                     | void                 |

