

A decorative graphic on the left side of the slide, consisting of a dark grey vertical band. Overlaid on this band is a light blue circuit-like pattern. It features several vertical lines that branch out horizontally and diagonally, ending in small circles, resembling a stylized circuit board or a network diagram.

# **PRESENTATION OF OOP PROJECT BY: MUHAMAD FARHAN RAIS 20001518**

## SystemManager

- + player1 : Player
- + player2 : Player
- + stage : Stage
- + sp : StartPage
- + gb : GamePage
- + ep : EndPage
- + retry : boolean

- + start() : void
- + retry() : void
- + stop() : void

# CLASS : SYSTEM MANAGER

## Player

- + name : String
- + shapeCode : String
- + shapePos : ArrayList<double>
- + chosenBox : Box
- + hasWon : boolean

- + reset() : void
- + clickBox() : void
- + putShape(Box) : void
- + printShapePos() : void

# CLASS : PLAYER

<<Abstract>>  
Pages

+ player1 : Player  
+ player2 : Player

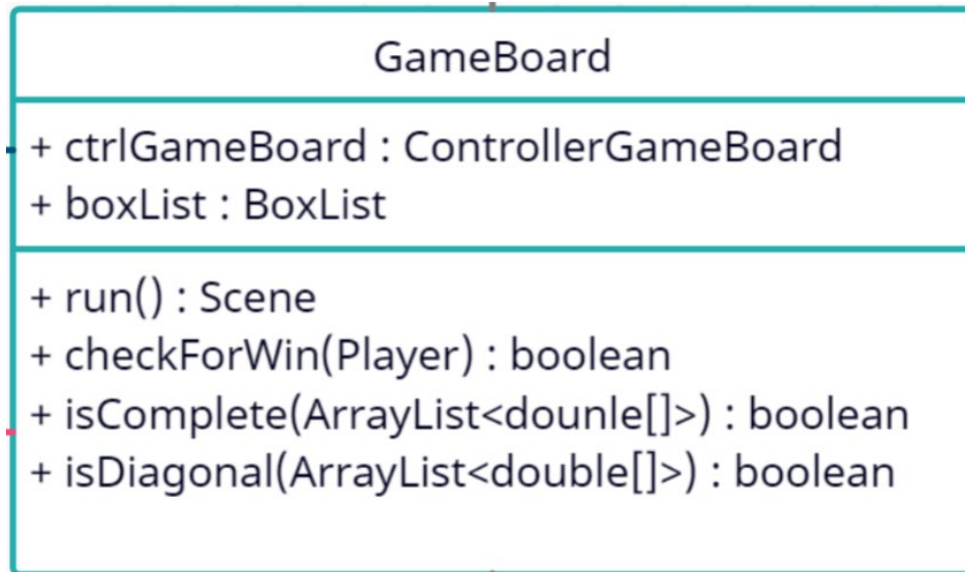
+ <<abstract>> run() : Scene

ABSTRACT CLASS :  
PAGES



# CLASS : STARTPAGE INHERITS FROM PAGES





CLASS : GAMEBOARD  
INHERITS FROM  
PAGES

# CLASS : ENDPAGE INHERITS FROM PAGES

EndPage

+ ctrlEndPage : ControllerEndPage

+ run() : Scene



```
graph TD; subgraph Controller_Interface [Controller]; direction TB; I1["<<Interface>>"]; I2["+ setPlayers;"]; I3[" "]; end
```

<<Interface>>  
Controller

+ setPlayers;

INTERFACE :  
CONTROLLER



### ControllerStartPage

- + player1 : Player
- + player2 : Player
- + p1NameField : TextField
- + p2NameField : TextField
- + p1ShapeCode : ToggleGroup
- + p2ShapeCode : ToggleGroup

- + start() : void
- + setPlayers() : void

CLASS :  
CONTROLLERSTARTPAGE  
IMPLEMENTS  
CONTROLLER INTERFACE

### ControllerGameBoard

```
+ p1 : Player  
+ p2 : Player  
+ currPlayer : Player  
+ boxList : BoxList  
+ tempR : Rectangle  
+ turn : String  
+ turnCount : int  
  
+ setTurnLabel(Label) : void  
+ setBoxList(BoxList) : void  
+ drawShapes(KeyEvent) : void  
+ highlightBox(MouseEvent) : void  
+ nextPlayer() : void  
+ setPlayers() : void
```

CLASS :  
CONTROLLERGAMEBOARD  
IMPLEMENTS CONTROLLER  
INTERFACE

### ControllerEndPage

- + player1 : Player
- + player2 : Player
- + exitButton : Button
- + retryButton : Button
- + resultLabel : Label

- + setResultLabel(Scene) : void
- + retry() : void
- + exit() : void
- + setPlayers() : void

CLASS :  
CONTROLLERENDPAGE  
IMPLEMENTS  
CONTROLLER INTERFACE



## BoxList

+ numberOfBoxes : int  
+ list : ArrayList<Box>

+ clearAll() : void  
+ getById(String) : Box  
+ unhighlightAll() : void

CLASS : BOXLIST



## Box

- + rect : Rectangle
- + xshape : XShape
- + oshape ; OShape
- + hasShape : boolean
- + highlighted : boolean

- + highlight() : void
- + clear() : void
- + setShape(String) : void

CLASS : BOX

<<Abstract>>  
Shape

+ visibility : boolean

+ <<abstract>>  
setVisibility(boolean) : void

## ABSTRACT CLASS : SHAPE

## OShape

+ circle : Circle

+ shapeCode : String

+ setVisibility(boolean) : void

CLASS : OSHAPE

## XShape

- + line1 : Line
- + line2 : Line
- + shapeCode : String
- + setVisibility(boolean) : void

CLASS : XSHAPE



