babalsYou::Main model controller view util

```
babalsYou::model::ClassDiagram1
                                                                                                                                                                                                                                                                                                                                                                                                                                 «enumeration»
                                                                                                                                                                                                                                                                                                                                      «enumeration»
Subject
                                                                                                                                                                                                                                                                                                                                                                                   «enumeration»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               «enumeration»
                                                                                                                                                                                                                                                                                                                                                                                                                                 Complement
                                                                                                                                                                                                                                                                             «enumeration»
Direction
                                                                                                                                                                                                                                                                                                                                                                                     Operator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              «enumeration»
ObjectType
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      «enumeration»
GameState
                                                                                                                                                                                                                                                                                                                                                                                                                       WIN
KILL
PUSH
YOU
STOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BABA_ICON
ROCK_ICON
FLAG_ICON
WALL_ICON
METAL_ICON
BONE_ICON
GRASS_ICON
EMPTY_ICON
LAVA_ICON
GOOP_ICON
BONE_ICON
WATER_ICON
                                                                                                                                                                                                                                                                                                                                BABA
ROCK
LAVA
FLAG
WALL
BONE
GOOP
                                                                                                                                                                                                                                Position
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBJECT
OPERATOR
COMPLEMENT
ICON
                                                                                                                                                                                                                 -row: int
                                                                                                                                                                                                                                                                     UP(-1,0)
DOWN(1,0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WIN
LOSE
PLAY
                                                                                                                                                                                                                  -column: int
                                                                                                                                                                                                                                                                     RIGHT(0,1)
LEFT(0,-1)
NONE(0,0)
                                                                                                                                                                                                                 +Position(row: int, column: int)
+getRow(): int
                                                                                                                                                                                                                   +getColumn(): int
+next(direction: Direction)
                                                                                                                                                                                                                                                                                                                                                              Rule
                                                                                                                                                                                                                                                                                                                  +Rule(subject: Subject, operator: Operator, complement: Complement)()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ManagerCommand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JundoStack:stack<Command>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -undoStack:stack<Command>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          +addAllCommand(command: Command)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         +undo()
+redo()
                                                                                                                                                                                                                                                                                                                                                                      -rules
                                                                                                                                                                                                                                                                                                                                                              Board
                                                                                                                                                                                                                                                                                                                              -board:std::vector<std::vector<Tiles>>
-player: ObjectType
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -managerCommand
                                                                                                                                                                                                                                                                                                                              +Board(height; int, width; int)
                                                                                                                                                                                                                                                                                                                               +getBoard(): Board
+move(direction: Direction)
                                                                                                                                                                                                                                Tiles
                                                                                                                                                                                                                                                                                                                               HisValidMove(): boolean
+dropTile(position: Position)
+setTile(objectType: ObjectType, newPosition: Position)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BabalsYou
                                                                                                                                                                                        -listObject: std::vector<ObjectType>
                                                                                                                                                                                                                                                                                                                                                                                                                                                          -numLevel: int
                                                                                                                                                                                                                                                                                                    -Tiles
                                                                                                                                                                                                                                                                                                                            -observers: vector<Observer>
                                                                                                                                                                                        +Tiles(object : std::vector<ObjectType>)()
+getSizeList(): int
                                                                                                                                                                                                                                                                                                                                                                                                                                                         +start(numLevel: int)
+getNumLevel(): int
                                                                                                                                                                                                                                                                                                                     0..*
                                                                                                                                                                                         +getListObject(): vector<ObjectType>
                                                                                                                                                                                                                                                                                                                                                                                                                                                          +setNumLevel()
+BabalsYou(level: LevelLoader)
                                                                                                                                                                                                                                                                                                                                                                                                                                                         +getLevel(): LevelLoader
                                                                                                                                                                                                                                                                                                                               +getTiles(): Tiles
+isWin(subject: Subject): boolean
                                                                                                                                                                                                                                                                                                                                                                                                                                                          +undo()
+redo()
+addObserver(Observer observer)
                                                                                                                                                                                                                                                                                                                               +isPush(subject: Subject): boolean
+isKill(subject: Subject): boolean
+isYou(subject: Subject): boolean
                                                                                                                                                                                                                                                                                                                                                                                                                                                         +removeObserver(Observer observer)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          -notifyObservers()
                                                                                                                                                                                                                                                                                                                             +getPlayer(): ObjectType
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -levelLoader
                                                                                                                                                                                                                                                                                                                                                                    -board
                                                                                                                                                                                                                                                                                                                                                            Level
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LevelLoader
                                                                                                                                                                                                                                                                                                                                       +getBoard():Board()
+setBoard(Board board)
                                                                                                                                                                                                                                                                                                                                                                                                                                                         +loadLevel(numLevel: int)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          +getLevel(): Level
                                                                                                                                                                                                                                                                                                                                                                                                                     -level
```

babalsYou::controller::ClassDiagram1

ControllerConsole

-babalsYou: BabalsYou -viewConsole: ViewConsole

+main(): int

+ControllerConsole(view: ViewConsole, babalsYou: BabalsYou)

+play()

ControllerGraphic

-babalsYou: BabalsYou

+main(): int

+ControllerGraphic(babalsYou: BabalsYou)

babalsYou::view::ClassDiagram1



- +printBoard(board vector<vector<Tiles>>()
- +displayStart()
- +displayLose()
- +displayWinLevel()
- +displayEndGame()
- +askDirection()
- +update()

viewGraphic

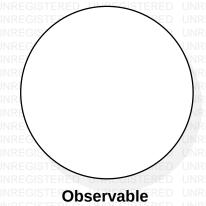
MenuView

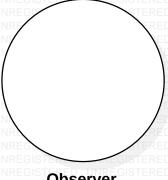
- -babalsYou: BabalsYou
- +displayMenu()

GameView

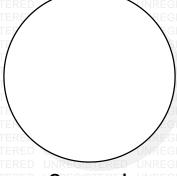
- -babalsYou: BabalsYou
- +displayBoard(board vector<vector<Tiles>>()
- +update()

babalsYou::util::ClassDiagram1





Observer



Command