# **Starter Class Diagram**

*Package in package 'Model'*

Starter Class Diagram

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/01/2019

## **Starter Class Diagram diagram**

*Class diagram in package 'Starter Class Diagram'*

Starter Class Diagram

Version 1.0

ADMIN created on 23/05/2023. Last modified 23/05/2023



Starter Class Diagram

## **BackgroundTile**

*Class in package 'Starter Class Diagram'*

BackgroundTile

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| goalManager : GoalManager Private  [ Is static False. Containment is Not Specified. ] |
| hitPoints : int Public  [ Is static False. Containment is Not Specified. ] |

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

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) BackgroundTile | Target: Private goalManager (Class) GoalManager |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Private breakableTiles (Class) BackgroundTile |

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

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **BackToSplash**

*Class in package 'Starter Class Diagram'*

BackToSplash

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| sceneToLoad : string Public  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **BlankGoal**

*Class in package 'Starter Class Diagram'*

BlankGoal

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

| **ATTRIBUTES** |
| --- |
| goalSprite : Sprite Public  [ Is static False. Containment is Not Specified. ] |
| matchValue : string Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| numberCollected : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| numberNeeded : int Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Level | Target: Public levelGoals (Class) BlankGoal |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) GoalManager | Target: Public levelGoals (Class) BlankGoal |

## **Board**

*Class in package 'Starter Class Diagram'*

Board

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| allDots : GameObject Public  [ Is static False. Containment is Not Specified. ] |
| basePieceValue : int Public = 20  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| boardLayout : TileType Public  Properties:  Attribute = [Header("Layout")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| breakableTilePrefab : GameObject Public  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| currentDot : Dot Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| currentState : GameState Public = GameState.move  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| destroyEffect : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| dots : GameObject Public  [ Is static False. Containment is Not Specified. ] |

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

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

|  |
| --- |
| height : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| level : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| matchType : MatchType Public  Properties:  Attribute = [Header("Match Stuff")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| offSet : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| refillDelay : float Public = 0.5f  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| scoreGoals : int Public  [ Is static False. Containment is Not Specified. ] |

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

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

|  |
| --- |
| streakValue : int Private = 1  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| tilePrefab : GameObject Public  Properties:  Attribute = [Header("Prefabs")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| width : int Public  Properties:  Attribute = [Header("Board Dimension")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| world : World Public  Properties:  Attribute = [Header("Scriptable Object Stuff")]  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Private soundManager (Class) SoundManager |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Private scoreManager (Class) ScoreManager |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Private findMatches (Class) FindMatches |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Public currentDot (Class) Dot |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Private breakableTiles (Class) BackgroundTile |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Public world (Class) World |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Public currentState (Enumeration) GameState |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Private goalManager (Class) GoalManager |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Public matchType (Class) MatchType |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Public boardLayout (Class) TileType |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) PauseManager | Target: Private board (Class) Board |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) ScoreManager | Target: Private board (Class) Board |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) HintManager | Target: Private board (Class) Board |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Dot | Target: Private board (Class) Board |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) GoalManager | Target: Private board (Class) Board |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) FindMatches | Target: Private board (Class) Board |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) CameraScalar | Target: Private board (Class) Board |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) EndgameManager | Target: Private board (Class) Board |

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

|  |
| --- |
| ColumnOrRow () : MatchType Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| CheckForMatches () : bool Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

|  |
| --- |
| DecreaseRowCo () : IEnumerator Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| DecreaseRowCo2 () : IEnumerator Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

|  |
| --- |
| DestroyMatchesAt (column : int , row : int ) : void Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| FillBoardCo () : IEnumerator Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

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

|  |
| --- |
| IsDeadLocked () : bool Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| MatchesAt (column : int , row : int , piece : GameObject ) : bool Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| MatchesOnBoard () : bool Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

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

|  |
| --- |
| ShuffleBoard () : IEnumerator Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| SwitchAndCheck (column : int , row : int , direction : Vector2 ) : bool Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| SwitchPieces (column : int , row : int , direction : Vector2 ) : void Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **CameraScalar**

*Class in package 'Starter Class Diagram'*

CameraScalar

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| aspectRatio : float Public = 0.625f  [ Is static False. Containment is Not Specified. ] |
| board : Board Private  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| cameraOffset : float Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| padding : float Public = 2  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| yOffset : float Public = 1  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) CameraScalar | Target: Private board (Class) Board |

| **OPERATIONS** |
| --- |
| RepositionCamera (x : float , y : float ) : void Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **ConfirmPanel**

*Class in package 'Starter Class Diagram'*

ConfirmPanel

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| level : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| levelToLoad : string Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| stars : Image Public  [ Is static False. Containment is Not Specified. ] |

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

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

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

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **Dot**

*Class in package 'Starter Class Diagram'*

Dot

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| adjacentBomb : GameObject Public  [ Is static False. Containment is Not Specified. ] |
| board : Board Private  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| colorBomb : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| column : int Public  Properties:  Attribute = [Header("Board Variables")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| columnCandy : GameObject Public  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| finalTouchPosition : Vector2 Private = Vector2.zero  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| firstTouchPosition : Vector2 Private = Vector2.zero  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| isAdjacentBomb : bool Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| isColorBomb : bool Public  Properties:  Attribute = [Header("Powerup Stuff")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| isColumnCandy : bool Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| isMatched : bool Public = false  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| isRowCandy : bool Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| otherDot : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| prerviousColumn : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| prerviousRow : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| row : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| rowCandy : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| swipeAngle : float Public = 0  Properties:  Attribute = [Header("Swipe Stuff")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| swipeResist : float Public = 1f  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| targetX : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| targetY : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| tempPosition : Vector2 Private  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Dot | Target: Private endgameManager (Class) EndgameManager |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Dot | Target: Private findMatches (Class) FindMatches |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Dot | Target: Private board (Class) Board |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Dot | Target: Private hintManager (Class) HintManager |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Public currentDot (Class) Dot |

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

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

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

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

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

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

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

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

|  |
| --- |
| MovePiecesActual (direction : Vector2 ) : void Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

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

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **EndgameManager**

*Class in package 'Starter Class Diagram'*

EndgameManager

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| board : Board Private  [ Is static False. Containment is Not Specified. ] |
| counter : Text Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| currentCounterValue : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| movesLabel : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| requirements : EndgameRequirements Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| timeLabel : GameObject Public  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| tryAgainPanel : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| youWinLabel : GameObject Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) EndgameManager | Target: Public requirements (Class) EndgameRequirements |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) EndgameManager | Target: Private board (Class) Board |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Dot | Target: Private endgameManager (Class) EndgameManager |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) GoalManager | Target: Private endGame (Class) EndgameManager |

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

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

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

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

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

## **EndgameRequirements**

*Class in package 'Starter Class Diagram'*

EndgameRequirements

Version 1.0 Phase 1.0 Proposed

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| **ATTRIBUTES** |
| --- |
| counterValue : int Public  [ Is static False. Containment is Not Specified. ] |
| gameType : GameType Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) EndgameRequirements | Target: Public gameType (Enumeration) GameType |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) EndgameManager | Target: Public requirements (Class) EndgameRequirements |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Level | Target: Public endGameRequirements (Class) EndgameRequirements |

## **FadePanelController**

*Class in package 'Starter Class Diagram'*

FadePanelController

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| gameInfoAnim : Animator Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| panelAnim : Animator Public  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| GameStartCo () : IEnumerator Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

## **FindMatches**

*Class in package 'Starter Class Diagram'*

FindMatches

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| board : Board Private  [ Is static False. Containment is Not Specified. ] |
| currentMatches : List<GameObject> Public = new List<GameObject>()  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) FindMatches | Target: Private board (Class) Board |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Dot | Target: Private findMatches (Class) FindMatches |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Private findMatches (Class) FindMatches |

| **OPERATIONS** |
| --- |
| AddToListAndMatch (dot : GameObject ) : void Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

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

|  |
| --- |
| FindAllMatchesCo () : IEnumerator Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| GetAdjacentPieces (column : int , row : int ) : List<GameObject> Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| getColumnPieces (column : int ) : List<GameObject> Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| GetNearbyPieces (dot1 : GameObject , dot2 : GameObject , dot3 : GameObject ) : void Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| getRowPieces (row : int ) : List<GameObject> Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| IsAdjacentBomb (dot1 : Dot , dot2 : Dot , dot3 : Dot ) : List<GameObject> Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| IsColumnCandy (dot1 : Dot , dot2 : Dot , dot3 : Dot ) : List<GameObject> Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| IsRowCandy (dot1 : Dot , dot2 : Dot , dot3 : Dot ) : List<GameObject> Private  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **GameStartManager**

*Class in package 'Starter Class Diagram'*

GameStartManager

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| levelPanel : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| startPanel : GameObject Public  [ Is static False. Containment is Not Specified. ] |

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

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

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **GoalManager**

*Class in package 'Starter Class Diagram'*

GoalManager

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| board : Board Private  [ Is static False. Containment is Not Specified. ] |
| currentGoals : List<GoalPanel> Public = new List<GoalPanel>()  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| goalGameParent : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| goalIntroParent : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| goalPrefab : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| levelGoals : BlankGoal Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) GoalManager | Target: Private endGame (Class) EndgameManager |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) GoalManager | Target: Public levelGoals (Class) BlankGoal |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) GoalManager | Target: Private board (Class) Board |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) GoalManager | Target: Public currentGoals (Class) GoalPanel  Cardinality: [0..\*] |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) BackgroundTile | Target: Private goalManager (Class) GoalManager |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Private goalManager (Class) GoalManager |

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

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

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

|  |
| --- |
| Start () : void Private  Use this for initialization  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

## **GoalPanel**

*Class in package 'Starter Class Diagram'*

GoalPanel

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| thisImage : Image Public  [ Is static False. Containment is Not Specified. ] |
| thisSprite : Sprite Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| thisString : string Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| thisText : Text Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) GoalManager | Target: Public currentGoals (Class) GoalPanel  Cardinality: [0..\*] |

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

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **HintManager**

*Class in package 'Starter Class Diagram'*

HintManager

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| board : Board Private  [ Is static False. Containment is Not Specified. ] |
| currentHint : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| hintDelay : float Public  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| hintParticle : GameObject Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) HintManager | Target: Private board (Class) Board |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Dot | Target: Private hintManager (Class) HintManager |

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

|  |
| --- |
| FindAllMatches () : List<GameObject> Private  First, I want to find all possible matches on the board  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| MarkHint () : void Private  Create the hint behind the chosen match  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| PickOneRandomly () : GameObject Private  Pick one of those matches randomly  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **Level**

*Class in package 'Starter Class Diagram'*

Level

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends ScriptableObject

| **ATTRIBUTES** |
| --- |
| boardLayout : TileType Public  Properties:  Attribute = [Header("Starting Tiles")]  [ Is static False. Containment is Not Specified. ] |
| dots : GameObject Public  Properties:  Attribute = [Header("Available Dots")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| endGameRequirements : EndgameRequirements Public  Properties:  Attribute = [Header("End Game Requirements ")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| height : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| levelGoals : BlankGoal Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| scoreGoals : int Public  Properties:  Attribute = [Header("Score Goals")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| width : int Public  Properties:  Attribute = [Header("Board Dimension")]  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Level | Target: Public levelGoals (Class) BlankGoal |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Level | Target: Public endGameRequirements (Class) EndgameRequirements |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Level | Target: Public boardLayout (Class) TileType |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) World | Target: Public levels (Class) Level |

## **LevelButton**

*Class in package 'Starter Class Diagram'*

LevelButton

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| activeSprite : Sprite Public  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| confirmPanel : GameObject Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| isActive : bool Public  Properties:  Attribute = [Header("Active Stuff")]  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| level : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| levelText : Text Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| lockedSprite : Sprite Public  [ Is static False. Containment is Not Specified. ] |

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

|  |
| --- |
| stars : Image Public  [ Is static False. Containment is Not Specified. ] |

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

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

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

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

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **MatchType**

*Class in package 'Starter Class Diagram'*

MatchType

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

| **ATTRIBUTES** |
| --- |
| color : string Public  [ Is static False. Containment is Not Specified. ] |
| type : int Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Public matchType (Class) MatchType |

## **PauseManager**

*Class in package 'Starter Class Diagram'*

PauseManager

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| board : Board Private  [ Is static False. Containment is Not Specified. ] |
| paused : bool Public = false  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| pausePanel : GameObject Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) PauseManager | Target: Private board (Class) Board |

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

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

|  |
| --- |
| Start () : void Private  Start is called before the first frame update  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

## **ScoreManager**

*Class in package 'Starter Class Diagram'*

ScoreManager

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| board : Board Private  [ Is static False. Containment is Not Specified. ] |
| numberStars : int Private  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| score : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| scoreBar : Image Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| scoreText : Text Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) ScoreManager | Target: Private board (Class) Board |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Private scoreManager (Class) ScoreManager |

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

|  |
| --- |
| Start () : void Private  Use this for initialization  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

|  |
| --- |
| Update () : void Private  Update is called once per frame  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |

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

## **SoundManager**

*Class in package 'Starter Class Diagram'*

SoundManager

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends MonoBehaviour

| **ATTRIBUTES** |
| --- |
| destroyNoise : AudioSource Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Private soundManager (Class) SoundManager |

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

## **TileType**

*Class in package 'Starter Class Diagram'*

TileType

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

| **ATTRIBUTES** |
| --- |
| tileKind : TileKind Public  [ Is static False. Containment is Not Specified. ] |
| x : int Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| y : int Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) TileType | Target: Public tileKind (Enumeration) TileKind |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Level | Target: Public boardLayout (Class) TileType |

|  |  |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Public boardLayout (Class) TileType |

## **World**

*Class in package 'Starter Class Diagram'*

World

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

Extends ScriptableObject

| **ATTRIBUTES** |
| --- |
| levels : Level Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) World | Target: Public levels (Class) Level |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Public world (Class) World |

## **GameState**

*Enumeration in package 'Starter Class Diagram'*

GameState

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

| **ATTRIBUTES** |
| --- |
| wait : Public  [ Is static False. Containment is Not Specified. ] |
| move : Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| win : Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| lose : Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| pause : Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) Board | Target: Public currentState (Enumeration) GameState |

## **GameType**

*Enumeration in package 'Starter Class Diagram'*

GameType

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

| **ATTRIBUTES** |
| --- |
| Moves : Public  [ Is static False. Containment is Not Specified. ] |
| Time : Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) EndgameRequirements | Target: Public gameType (Enumeration) GameType |

## **TileKind**

*Enumeration in package 'Starter Class Diagram'*

TileKind

Version 1.0 Phase 1.0 Proposed

ADMIN created on 23/05/2023. Last modified 23/05/2023

| **ATTRIBUTES** |
| --- |
| Breakable : Public  [ Is static False. Containment is Not Specified. ] |
| Blank : Public  [ Is static False. Containment is Not Specified. ] |

|  |
| --- |
| Normal : Public  [ Is static False. Containment is Not Specified. ] |

| **ASSOCIATIONS** | |
| --- | --- |
| Association (direction: Source -> Destination) | |
| Source: Public (Class) TileType | Target: Public tileKind (Enumeration) TileKind |