|  |
| --- |
| **InvadersGameController** |
| - keyboard = Scanner  - logic = InvadersGameLogix  - gui = InvadersGameGUI  - text = InvadersGameText |
| + InvadersGameController()  + playGui()  + playText() |

|  |
| --- |
| **RunMe** |
| + main(String[] args) |

|  |
| --- |
| **SHAPE** |
| - location = int  - lastLocation = int  - speed = int |
| + playerShip( int screenLength, int newSpeed)  + getLocation () : int  + getLastLocation() : int  + setLocation(int newLocation)  + getSpeed(): int  + inBounds(int boardWidth)  + shipMovement(String direction)  + moveRight()  + moveLeft()  + draw(Graphics g) |

|  |
| --- |
| **InvadersGameLogic** |
| - screenHeight = int  - screenWidth = int  - alienInvaders = AlienArray  - ship = playerShip  - shot = playerShot  - gameStatus = String  - gameVersion = String |
| + InvadersGameLogic(String version)  + getGameStatus() : String  + getArray() : AlienArray  + getArray(): AlienArray  + getShip(): playerShip  + getShot(): playerShot  + getScreenWidth(): int  + getScreenHeight(): int  + moveAliens()  + checkStatus()  + shipMovement()  + handleShotInteraction()  + shotAttempt() |

|  |
| --- |
| **playerShip** |
|  |
| + playerShip( int screenLength, int newY, int size, int newSpeed)  + inBounds(int boardWidth)  + move(String direction)  + draw(Graphics g)  + toString(): String |

|  |
| --- |
| **Alien** |
| - isAlive = boolean |
| + Alien(int hSpeed, int vSpeed, int newSize)  + isAlive(): boolean  + destroyAlien()  + inBounds(int boardHeight): Boolean  + moveRight()  + moveDown()  + moveLeft()  + draw(Graphics g) |

|  |
| --- |
| **KeyboardListener** |
| + keyPressed(KeyEvent e)  + keyReleased(KeyEvent e)  + keyTyped(KeyEvent e) |

|  |
| --- |
| **TimerListener** |
|  |

|  |
| --- |
| **playerShot** |
| - shotFired= boolean  - initialY = int  - width= int  - length = int  - shotRow = int  - lastShotRow = int  - shotColumn = int  - speed = int |
| + playerShot( int startingRow, int newSpeed)  + playershot( int startingRow, int newSpeed, int newWitdh, int newLength)  + getShotRow() : int  + getLastShotRow() : int  + getShotColumn() : int  + setShotColumn( int column )  + shotFired (Boolean shotStatus)  + resetShot(boolean shotStatus, int newX)  + getShotFired(): boolean  + moveShot()  + inBounds()  + checkHit( int targetX, int targetY, int targetRadius): boolean  + checkHit( int targetRow, int targetCol ) : boolean  + draw(Graphics g) |

|  |
| --- |
| **AlienArray** |
| - numAliens = int  - rowsAliens = int  - moveRight = boolean  - aliens = Alien[][]  - leftBoundary = int  - rightBoundary = int |
| + AlienArrary(String version)  + getNumAliens():int  + getRowsAliens():int  + createAlienArray()  + setAliens()  + checkBoundary()  + aliensMovement(int width)  + drawAlienArray(Graphics g)  + setGUIaliens() |

|  |
| --- |
| **InvadersGameGUI** |
| * windowWidth = int * windowHeight = int * logic = InvadersGameLogic |
| + InvadersGameGUI(InvadersGameLogic newLogic)  + updateScreen() |
| **Canvas extends JComponent** |
| + paintComponent(Graphics g) |

|  |
| --- |
| **InvadersGameText** |
| - boardHeight = int  - boardWidth = int  - board = char[][] |
| + createBoard()  + printBoard()  + drawShip()  + drawShot()  + drawAliens()  + drawCurrentState() |