FaultInOurPong

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Chapter 1

The main page for the game FaultInOurPong.

Chapter 2

Namespace Index

2.1 Packages

Here are the packages with brief descriptions (if available):

model 11
startGame 11
view 11

Chapter 3

Hierarchical Index

3.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

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startGame.GameController 15
model.GameModel 21
view.GameView 24
model.Paddle 31
model.Player 34
startGame.PongGame 36
JFrame
    view.Mode 29
    view.Tutorial 43
    view.Welcome 45
JPanel
    view.PongGameDisplay 37

Chapter 4

Class Index

4.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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startGame.GameController 15
model.GameModel 21
view.GameView 24
view.Mode 29
model.Paddle 31
model.Player 34
startGame.PongGame 36
view.PongGameDisplay 37
view.Tutorial 43
view.Welcome 45

Chapter 5

File Index

5.1 File List

Here is a list of all files with brief descriptions:

src/model/Ball.java

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src/model/GameModel.java

This class represents a ball on the pong game 49

src/model/Paddle.java

This class defines a paddle 50

src/model/Player.java

This class represents a player for the game 51

src/startGame/GameController.java

This class is the controller for the game 51

src/startGame/PongGame.java

This class starts the game 52

src/view/GameView.java

This class is the main view model 53

src/view/Mode.java

This class create the game mode window 53

src/view/PongGameDisplay.java

This class construct the view of the pong game 54

src/view/Tutorial.java

This class create the tutorial window 55

src/view/Welcome.java

This class creates the display for welcome page 55

Chapter 6

Namespace Documentation

6.1 Package model

Classes

- class Ball
- class GameModel
- class Paddle
- class Player

6.2 Package startGame

Classes

- class GameController
- class PongGame

6.3 Package view

Classes

- class GameView
- class Mode
- class PongGameDisplay
- class Tutorial
- class Welcome

Chapter 7

Class Documentation

7.1 model.Ball Class Reference

Public Member Functions

- Ball ()

  Constructor for Ball.
- void setPositionX (int x)

  sets the x position of the ball
- void setPositionY (int y)

  sets the y position of the ball
- int getPositionX ()

  gets the x-position of the ball
- int getPositionY ()

  gets the y-position of the ball
- int getSize ()

  gets the size of the ball

Private Attributes

- int positionX
- int positionY
- final int SIZE = 20
- int speed

7.1.1 Constructor & Destructor Documentation

7.1.1.1 Ball()

```
model.Ball.Ball ( )
```

Constructor for Ball.

Constructor accepts the x and y position of the ball

7.1.2 Member Function Documentation

7.1.2.1 getPositionX()

```
int model.Ball.getPositionX ( )
```

gets the x-position of the ball

Returns

positionX

7.1.2.2 getPositionY()

```
int model.Ball.getPositionY ( )
```

gets the y-position of the ball

Returns

positionY

7.1.2.3 getSize()

```
int model.Ball.getSize ( )
```

gets the size of the ball

Returns

SIZE

7.1.2.4 setPositionX()

```
void model.Ball.setPositionX (
             int x )
```

sets the x position of the ball

Parameters

x-position	of the ball

7.1.2.5 setPositionY()

```
void model.Ball.setPositionY (
            int y )
```

sets the y position of the ball

Parameters

y-position	of the ball

7.1.3 Member Data Documentation

7.1.3.1 positionX

```
int model.Ball.positionX [private]
```

The X and Y position of a ball on the screen

7.1.3.2 positionY

```
int model.Ball.positionY [private]
```

7.1.3.3 SIZE

```
final int model.Ball.SIZE = 20 [private]
```

The size of a ball

7.1.3.4 speed

```
int model.Ball.speed [private]
```

The documentation for this class was generated from the following file:

- src/model/Ball.java

7.2 startGame.GameController Class Reference

Classes

- class **GameListener**

  action listener for the game page
- class **ModeListener**

  action listener for the game mode page
- class **TutorialListener**

  action listener for the tutorial page
- class **WelcomepageListener**

  action listener for the welcome page

Public Member Functions

- GameController (GameView v, GameModel m)
- void display ()

  sets the display
- void checkGameOver ()

  checks whether the game ends

Private Attributes

- GameView v
- GameModel m
- Welcome w
- Mode mode
- Tutorial tut
- HashSet< String > keys = new HashSet<String>()
- JFrame gameFrame
- int frameWidth
- PongGameDisplay gameDisplay
- int velX =1
- int padWidth
- int bottomPadX
- Ball b
- Paddle paddle_player
- int ballX
- int scoreTop
- int inset
- final int SINGLE = 0
- final int ADVANCE = 1
- int gameMode
- Ball bomb
- int bombX
- Player player
- Player ai
- Timer t
- Timer record

7.2.1 Constructor & Destructor Documentation

7.2.1.1 GameController()

```
startGame.GameController.GameController (
             GameView v,
             GameModel m )
```

Obtain the window frame dimentions

Setups for ball in the Model

Setups for the bomb in the Model

Setups for the paddles in the Model

- obtain paddle dimensions
- initialize paddle positions for the player paddle
- initialize paddle positions for the ai paddle

Setups for the players in the Model

- initialize number of life for the player and the ai

Setups for the View

- obtain windows from the view
- add action listener for different windows

7.2.2 Member Function Documentation

7.2.2.1 checkGameOver()

```
void startGame.GameController.checkGameOver ( )
```

checks whether the game ends

check the number of life for both the player and the ai is 0.

- If the number of life for the ai is 0, the player wins
- If the number of life for the player is 0, the ai wins.

7.2.2.2 display()

```
void startGame.GameController.display ( )
```

sets the display

opens a window

7.2.3 Member Data Documentation

7.2.3.1 ADVANCE

```
final int startGame.GameController.ADVANCE = 1  [private]
```

7.2.3.2 ai

```
Player startGame.GameController.ai  [private]
```

7.2.3.3 b

```
Ball startGame.GameController.b [private]
```

7.2.3.4 ballX

```
int startGame.GameController.ballX [private]
```

7.2.3.5 bomb

```
Ball startGame.GameController.bomb [private]
```

7.2.3.6 bombX

```
int startGame.GameController.bombX [private]
```

7.2.3.7 bottomPadX

```
int startGame.GameController.bottomPadX [private]
```

7.2.3.8 frameWidth

```
int startGame.GameController.frameWidth [private]
```

7.2.3.9 gameDisplay

```
PongGameDisplay startGame.GameController.gameDisplay [private]
```

7.2.3.10 gameFrame

```
JFrame startGame.GameController.gameFrame [private]
```

Variable declarations for the game

- frame dimension
- paddle information
- ball information
- bomb information
- player information

7.2.3.11 gameMode

```
int startGame.GameController.gameMode  [private]
```

7.2.3.12 inset

```
int startGame.GameController.inset  [private]
```

7.2.3.13 keys

```
HashSet<String> startGame.GameController.keys = new HashSet<String>()  [private]
```

Declare a variable for storing the key pressed records

7.2.3.14 m

```
GameModel startGame.GameController.m  [private]
```

7.2.3.15 mode

```
Mode startGame.GameController.mode  [private]
```

7.2.3.16 paddle_player

```
Paddle startGame.GameController.paddle_player  [private]
```

7.2.3.17 padWidth

```
int startGame.GameController.padWidth  [private]
```

7.2.3.18 player

```
Player startGame.GameController.player  [private]
```

7.2.3.19 record

```
Timer startGame.GameController.record  [private]
```

7.2.3.20 scoreTop

```
int startGame.GameController.scoreTop  [private]
```

7.2.3.21 SINGLE

```
final int startGame.GameController.SINGLE = 0  [private]
```

7.2.3.22 t

```
Timer startGame.GameController.t  [private]
```

7.2.3.23 tut

```
Tutorial startGame.GameController.tut  [private]
```

7.2.3.24 v

```
GameView startGame.GameController.v  [private]
```

Import model and view to the controller (this interface).

7.2.3.25 velX

```
int startGame.GameController.velX =1  [private]
```

7.2.3.26 w

```
Welcome startGame.GameController.w  [private]
```

Variable declarations for storing the game view windows

- welcome page
- mode page for showing different modes
- tutorial page for giving instructions to the students

The documentation for this class was generated from the following file:

- src/startGame/GameController.java

7.3 model.GameModel Class Reference

Public Member Functions

- GameModel ()

    Constructor for the game Model.
- void setBall (int x, int y)

    sets the x and y positions of a ball
- void setBomb (int x, int y)

    sets the x and y positions of a bomb
- Ball getBall ()

    gets the Ball object
- Ball getBomb ()

    gets the bomb object
- Paddle getPlayerPaddle ()

    gets the user paddle object
- Paddle getComputerPaddle ()

    gets the computer paddle object
- Player getPlayer ()

    gets the player object
- Player getComputer ()

    gets the computer object

Private Attributes

- Ball b
- Paddle p_player
- Player player

7.3.1 Constructor & Destructor Documentation

7.3.1.1 GameModel()

```
model.GameModel.GameModel ( )
```

Constructor for the game Model.

Contains all the data and models for the game, including the player, paddle, and the ball. Declara variables/instances for the model

- regular ball
- bomb
- paddle for the player
- paddle for the computer
- score and life for the player
- score and life for the ai

7.3.2 Member Function Documentation

7.3.2.1 getBall()

```
Ball model.GameModel.getBall ( )
```

gets the Ball object

Returns

b is the ball object

7.3.2.2 getBomb()

```
Ball model.GameModel.getBomb ( )
```

gets the bomb object

Returns

bomb is the bomb object

7.3.2.3 getComputer()

```
Player model.GameModel.getComputer ( )
```

gets the computer object

Returns

computer

7.3.2.4 getComputerPaddle()

```
Paddle model.GameModel.getComputerPaddle ( )
```

gets the computer paddle object

Returns

p_computer

7.3.2.5 getPlayer()

```
Player model.GameModel.getPlayer ( )
```

gets the player object

Returns

player

7.3.2.6 getPlayerPaddle()

```
Paddle model.GameModel.getPlayerPaddle ( )
```

gets the user paddle object

Returns

p_player

7.3.2.7 setBall()

```
void model.GameModel.setBall (
             int x,
             int y )
```

sets the x and y positions of a ball

Parameters

x	is the x position of the ball
y	is the y position of the ball

7.3.2.8 setBomb()

```
void model.GameModel.setBomb (
             int x,
             int y )
```

sets the x and y positions of a bomb

Parameters

x	is the x position of the bomb
y	is the y position of the bomb

7.3.3 Member Data Documentation

7.3.3.1 b

```
Ball model.GameModel.b  [private]
```

The ball object for the game

7.3.3.2 p_player

```
Paddle model.GameModel.p_player  [private]
```

The two paddle in the game, one for the player and the other for the computer

7.3.3.3 player

```
Player model.GameModel.player  [private]
```

The two players in the game, one for the user and the other for the computer

The documentation for this class was generated from the following file:

- src/model/GameModel.java

7.4 view.GameView Class Reference

Public Member Functions

- GameView ()

    Constructor for the view.
- void display ()

    displays the welcome page.
- Welcome getWelcome ()

    gets welcome page window
- Mode getmode ()

    gets game mode page window
- PongGameDisplay getGame ()

    gets game window
- Tutorial getTutorial ()

    gets tutorial page window
- void createGame ()

    create the game for display
- JFrame getGameFrame ()

    gets game object
- void noFileAvailMessage ()

    display message for error loading game record
- void cannotLoadMessage ()

    display message for error loading game
- void gameOver (int whichplayer)

    display message for game over
- void tutorialPage (ImageIcon img)

    create tutorial page
- int getFrameWidth ()

    gets width of the window
- int getFrameHeight ()

    gets height of the window

Private Attributes

- Welcome welcome
- Mode mode
- PongGameDisplay ponggame
- Tutorial tutorial
- JFrame gameFrame
- final int FRAMEWIDTH = 700
- final int FRAMEHEIGHT = 500

7.4.1 Constructor & Destructor Documentation

7.4.1.1 GameView()

```
view.GameView.GameView ( )
```

Constructor for the view.

declares all other windows

- Pass in different windows to this view interface
- Wait for further invocation

7.4.2 Member Function Documentation

7.4.2.1 cannotLoadMessage()

```
void view.GameView.cannotLoadMessage ( )
```

display message for error loading game

create a frame for display

7.4.2.2 createGame()

```
void view.GameView.createGame ( )
```

create the game for display

create a frame under set dimension for the game

7.4.2.3 display()

```
void view.GameView.display ( )
```

displays the welcome page.

sets the visibility of the window to be true.

7.4.2.4 gameOver()

```
void view.GameView.gameOver (
             int whichplayer )
```

display message for game over

Parameters

whichplayer	is the indicator for the player

- If the computer wins, display winning message for the computer
- If the player wins, display winning message for the player

7.4.2.5 getFrameHeight()

```
int view.GameView.getFrameHeight ( )
```

gets height of the window

Returns

FRAMEHEIGHT

7.4.2.6 getFrameWidth()

```
int view.GameView.getFrameWidth ( )
```

gets width of the window

Returns

FRAMEWIDTH

7.4.2.7 getGame()

```
PongGameDisplay view.GameView.getGame ( )
```

gets game window

Returns

game window object

7.4.2.8 getGameFrame()

```
JFrame view.GameView.getGameFrame ( )
```

gets game object

Returns

game object

7.4.2.9 getmode()

```
Mode view.GameView.getmode ( )
```

gets game mode page window

Returns

game mode page object

7.4.2.10 getTutorial()

```
Tutorial view.GameView.getTutorial ( )
```

gets tutorial page window

Returns

tutorial page object

7.4.2.11 getWelcome()

```
Welcome view.GameView.getWelcome ( )
```

gets welcome page window

Returns

welcome page object

7.4.2.12 noFileAvailMessage()

```
void view.GameView.noFileAvailMessage ( )
```

display message for error loading game record

create a frame for display

7.4.2.13 tutorialPage()

```
void view.GameView.tutorialPage (
             ImageIcon img )
```

create tutorial page

Parameters

img	is the image for display

7.4.3 Member Data Documentation

7.4.3.1 FRAMEHEIGHT

```
final int view.GameView.FRAMEHEIGHT = 500  [private]
```

7.4.3.2 FRAMEWIDTH

```
final int view.GameView.FRAMEWIDTH = 700  [private]
```

Constant declarations for the view

7.4.3.3 gameFrame

```
JFrame view.GameView.gameFrame  [private]
```

7.4.3.4 mode

```
Mode view.GameView.mode  [private]
```

7.4.3.5 ponggame

```
PongGameDisplay view.GameView.ponggame  [private]
```

7.4.3.6 tutorial

```
Tutorial view.GameView.tutorial  [private]
```

7.4.3.7 welcome

```
Welcome view.GameView.welcome  [private]
```

Variable declarations to store different pages

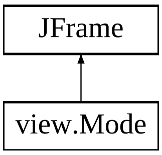
- welcome page
- game mode page
- tutorial page
- game page

The documentation for this class was generated from the following file:

- src/view/GameView.java

7.5 view.Mode Class Reference

Inheritance diagram for view.Mode:



Public Member Functions

- Mode ()

    Constructor for the player.
- void addButton (JButton x)

    adds buttons to a panel
- void addListener (ActionListener buttonListener)

    adds action listener to the buttons
- JButton getSingle ()

    gets the button for single mode

Private Attributes

- JButton single = new JButton("Single Player Mode")
- JButton sObstacle = new JButton("Advanced Single Player Mode")
- JPanel buttonPanel

7.5.1 Constructor & Destructor Documentation

7.5.1.1 Mode()

```
view.Mode.Mode ( )
```

Constructor for the player.

sets the size and header for the window, and adds buttons to the window Setups for the frame

Setups for the buttons on the panel

Add the panel to the frame/window for display

7.5.2 Member Function Documentation

7.5.2.1 addButton()

```
void view.Mode.addButton (
             JButton x )
```

adds buttons to a panel

makes buttons align in the panel

7.5.2.2 addListener()

```
void view.Mode.addListener (
             ActionListener buttonListener )
```

adds action listener to the buttons

Parameters

buttonListener	is the action listener

7.5.2.3 getSingle()

```
JButton view.Mode.getSingle ( )
```

gets the button for single mode

Returns

single

7.5.3 Member Data Documentation

7.5.3.1 buttonPanel

```
JPanel view.Mode.buttonPanel [private]
```

7.5.3.2 single

```
JButton view.Mode.single = new JButton("Single Player Mode") [private]
```

Variable declarations for the buttons

- easy single mode
- single mode with obstacles
- a panel that contains the buttons

7.5.3.3 sObstacle

```
JButton view.Mode.sObstacle = new JButton("Advanced Single Player Mode") [private]
```

The documentation for this class was generated from the following file:

- src/view/Mode.java

7.6 model.Paddle Class Reference

Public Member Functions

- Paddle ()

  Constructor for a paddle.
- void setPositionX (int x)

  sets the x-position of the paddle.
- void setPositionY (int y)

  sets the y-position of the paddle.
- int getPositionX ()

  returns the x position of the paddle.
- int getPositionY ()

  returns the y position of the paddle.
- int getWidth ()

  returns the width of the paddle.
- int getHeight ()

  returns the height of the paddle.
- int getInset ()

  returns the inset between the paddle and the screen.

Private Attributes

- int positionX
- int positionY
- final int HEIGHT = 10
- final int WIDTH = 80
- final int INSET = 10
- int speed

7.6.1 Constructor & Destructor Documentation

7.6.1.1 Paddle()

```
model.Paddle.Paddle ( )
```

Constructor for a paddle.

Constructor initialize the starting position of a paddle.

7.6.2 Member Function Documentation

7.6.2.1 getHeight()

```
int model.Paddle.getHeight ( )
```

returns the height of the paddle.

Returns

HEIGHT

7.6.2.2 getInset()

```
int model.Paddle.getInset ( )
```

returns the inset between the paddle and the screen.

Returns

INSET

7.6.2.3 getPositionX()

```
int model.Paddle.getPositionX ( )
```

returns the x position of the paddle.

Returns

positionX

7.6.2.4 getPositionY()

```
int model.Paddle.getPositionY ( )
```

returns the y position of the paddle.

Returns

positionY

7.6.2.5 getWidth()

```
int model.Paddle.getWidth ( )
```

returns the width of the paddle.

Returns

WIDTH

7.6.2.6 setPositionX()

```
void model.Paddle.setPositionX (
             int x )
```

sets the x-position of the paddle.

Parameters

x	is the x position of the paddle.

7.6.2.7 setPositionY()

```
void model.Paddle.setPositionY (
            int y )
```

sets the y-position of the paddle.

Parameters

y	is the y position of the paddle.

7.6.3 Member Data Documentation

7.6.3.1 HEIGHT

```
final int model.Paddle.HEIGHT = 10  [private]
```

The property of a paddle

- the length of a paddle
- the width of a paddle
- the inset between a paddle and the screen frame

7.6.3.2 INSET

```
final int model.Paddle.INSET = 10  [private]
```

7.6.3.3 positionX

```
int model.Paddle.positionX  [private]
```

The position of a paddle

- horizontal position x
- vertical position y

7.6.3.4 positionY

```
int model.Paddle.positionY  [private]
```

7.6.3.5 speed

```
int model.Paddle.speed  [private]
```

7.6.3.6 WIDTH

```
final int model.Paddle.WIDTH = 80  [private]
```

The documentation for this class was generated from the following file:

- src/model/Paddle.java

7.7 model.Player Class Reference

Public Member Functions

- Player ()

  Constructor for the player.
- void decrementLife ()

  loses score if the ball touches his/her border.
- int getScore ()

  gets the score of a player
- boolean checkLoss ()

  checks whether the player loses the game or not

Private Attributes

- final int LIFE = 3
- final int NOLIFE = 0
- int score

7.7.1 Constructor & Destructor Documentation

7.7.1.1 Player()

```
model.Player.Player ( )
```

Constructor for the player.

sets the current life is the full life (3).

7.7.2 Member Function Documentation

7.7.2.1 checkLoss()

```
boolean model.Player.checkLoss ( )
```

checks whether the player loses the game or not

Returns

a boolean that is used to indicate whether the player is losing or not

7.7.2.2 decrementLife()

```
void model.Player.decrementLife ( )
```

loses score if the ball touches his/her border.

decreases the number of life by 1.

7.7.2.3 getScore()

```
int model.Player.getScore ( )
```

gets the score of a player

Returns

playerScore returns the score of the player .

7.7.3 Member Data Documentation

7.7.3.1 LIFE

```
final int model.Player.LIFE = 3  [private]
```

Defines constant number of life of a player

- the player has 3 lives in total
- the player loses if the number of life is 0

7.7.3.2 NOLIFE

```
final int model.Player.NOLIFE = 0  [private]
```

7.7.3.3 score

```
int model.Player.score  [private]
```

Defines the current number of life of the player.

The documentation for this class was generated from the following file:

- src/model/Player.java

7.8 startGame.PongGame Class Reference

Static Public Member Functions

- static void main (String[ ] args)

  This is the main function for starting the program.

7.8.1 Member Function Documentation

7.8.1.1 main()

```
static void startGame.PongGame.main (
             String [] args )  [static]
```

This is the main function for starting the program.

Author

Pongthusiastics

Parameters

args	is the input for the main function

Date

13/11/2016

Initialize the model, view, and controller for the game

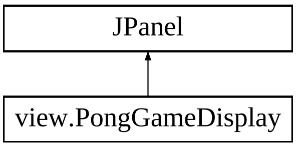
Invoke the game display from the controller

The documentation for this class was generated from the following file:

- src/startGame/PongGame.java

7.9 view.PongGameDisplay Class Reference

Inheritance diagram for view.PongGameDisplay:



Public Member Functions

- PongGameDisplay ()

  Constructor for PongGameDisplay.
- void setBall (int x, int y)

  sets the positions of the ball
- void setBallSize (int s)

  sets the size of the ball
- void setBottom (int x)

  sets x-position for the player paddle
- void setTop (int x)

  sets x-position for the ai paddle
- int getBottomX ()

  gets the x-position of the player paddle
- int getBottomY ()

  gets the y-position of the player paddle
- void setTopScore (int s)

  sets the score for ai
- void setBottomScore (int s)

  sets the score for player
- int getBallX ()

  gets the x-position of the ball
- int getBallY ()

  gets the y-position of the ball
- void setPaddleWidth (int w)

  sets the width of the paddle
- void setPaddleHeight (int h)

  sets the height of the paddle
- void setInset (int i)

  sets the distance between frame and the paddle
- void setAdvance ()

  sets the game mode to be advanced

Protected Member Functions

- void paintComponent (Graphics g)

  draws shapes on the screen

Private Attributes

- int frameWidth
- int frameHeight
- int scoreTop
- int ballX
- int bottomPadX
- int topPadX
- boolean first
- int ballSize
- int padW
- int inset
- int gameMode
- final int SINGLE =0
- final int ADVANCE =1

7.9.1 Constructor & Destructor Documentation

7.9.1.1 PongGameDisplay()

```
view.PongGameDisplay.PongGameDisplay ( )
```

Constructor for PongGameDisplay.

Constructor by default set the game to single mode

7.9.2 Member Function Documentation

7.9.2.1 getBallX()

```
int view.PongGameDisplay.getBallX ( )
```

gets the x-position of the ball

Returns

ballX

7.9.2.2 getBallY()

```
int view.PongGameDisplay.getBallY ( )
```

gets the y-position of the ball

Returns

ballY

7.9.2.3 getBottomX()

```
int view.PongGameDisplay.getBottomX ( )
```

gets the x-position of the player paddle

Returns

bottomPadX

7.9.2.4 getBottomY()

```
int view.PongGameDisplay.getBottomY ( )
```

gets the y-position of the player paddle

Returns

bottomPadY

7.9.2.5 paintComponent()

```
void view.PongGameDisplay.paintComponent (
             Graphics g )  [protected]
```

draws shapes on the screen

when the game is started, by default draws the ball and paddles in the middle, otherwise, draws objects by passed in values. Initial positioning

- ball at the center of the screen
- paddle in the middle of the frame width

Draw rectangles by passed in values

Draw the ball by passed in values

Draw scores on the screen by passed in values

7.9.2.6 setAdvance()

```
void view.PongGameDisplay.setAdvance ( )
```

sets the game mode to be advanced

set the flag to advance

7.9.2.7 setBall()

```
void view.PongGameDisplay.setBall (
             int x,
             int y )
```

sets the positions of the ball

Parameters

x	is the x-position of the ball
y	is the y-position of the ball

7.9.2.8 setBallSize()

```
void view.PongGameDisplay.setBallSize (
             int s )
```

sets the size of the ball

Parameters

s	is the ball size

7.9.2.9 setBottom()

```
void view.PongGameDisplay.setBottom (
             int x )
```

sets x-position for the player paddle

Parameters

s	is the x-position

7.9.2.10 setBottomScore()

```
void view.PongGameDisplay.setBottomScore (
             int s )
```

sets the score for player

Parameters

s	is the score

7.9.2.11 setInset()

```
void view.PongGameDisplay.setInset (
             int i )
```

sets the distance between frame and the paddle

Parameters

i	is the inset

7.9.2.12 setPaddleHeight()

```
void view.PongGameDisplay.setPaddleHeight (
             int h )
```

sets the height of the paddle

Parameters

h	is the height

7.9.2.13 setPaddleWidth()

```
void view.PongGameDisplay.setPaddleWidth (
             int w )
```

sets the width of the paddle

Parameters

w	is the width

7.9.2.14 setTop()

```
void view.PongGameDisplay.setTop (
             int x )
```

sets x-position for the ai paddle

Parameters

s	is the x-position

7.9.2.15 setTopScore()

```
void view.PongGameDisplay.setTopScore (
             int s )
```

sets the score for ai

Parameters

s	is the score

7.9.3 Member Data Documentation

7.9.3.1 ADVANCE

```
final int view.PongGameDisplay.ADVANCE =1  [private]
```

7.9.3.2 ballSize

```
int view.PongGameDisplay.ballSize  [private]
```

7.9.3.3 ballX

```
int view.PongGameDisplay.ballX  [private]
```

7.9.3.4 bottomPadX

```
int view.PongGameDisplay.bottomPadX  [private]
```

7.9.3.5 first

```
boolean view.PongGameDisplay.first  [private]
```

7.9.3.6 frameHeight

```
int view.PongGameDisplay.frameHeight  [private]
```

7.9.3.7 frameWidth

```
int view.PongGameDisplay.frameWidth  [private]
```

Variable declarations for the display

- frame dimension
- ball information
- bomb information
- player scores
- paddle information

7.9.3.8 gameMode

```
int view.PongGameDisplay.gameMode  [private]
```

7.9.3.9 inset

```
int view.PongGameDisplay.inset  [private]
```

7.9.3.10 padW

```
int view.PongGameDisplay.padW  [private]
```

7.9.3.11 scoreTop

```
int view.PongGameDisplay.scoreTop  [private]
```

7.9.3.12 SINGLE

```
final int view.PongGameDisplay.SINGLE =0  [private]
```

7.9.3.13 topPadX

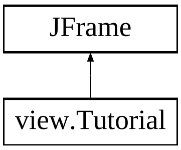
```
int view.PongGameDisplay.topPadX  [private]
```

The documentation for this class was generated from the following file:

- src/view/PongGameDisplay.java

7.10 view.Tutorial Class Reference

Inheritance diagram for view.Tutorial:



Public Member Functions

- Tutorial (ImageIcon img)

  Constructor for the tutorial page.
- JButton getBack ()

  gets the button to exit the page
- void addListener (ActionListener listener)

  adds action listener to the button

Private Attributes

- JButton back

7.10.1 Constructor & Destructor Documentation

7.10.1.1 Tutorial()

```
view.Tutorial.Tutorial (
             ImageIcon img )
```

Constructor for the tutorial page.

Parameters

img	is the image for display

Setups for the window

Add the image to the window

7.10.2 Member Function Documentation

7.10.2.1 addListener()

```
void view.Tutorial.addListener (
             ActionListener listener )
```

adds action listener to the button

Parameters

listener	is the action listener

7.10.2.2 getBack()

```
JButton view.Tutorial.getBack ( )
```

gets the button to exit the page

Returns

back is the button for going back to welcome page

7.10.3 Member Data Documentation

7.10.3.1 back

```
JButton view.Tutorial.back  [private]
```

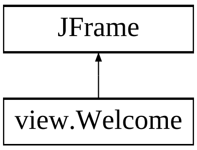
Variable declaration for the back button

The documentation for this class was generated from the following file:

- src/view/Tutorial.java

7.11 view.Welcome Class Reference

Inheritance diagram for view.Welcome:



Public Member Functions

- Welcome ()
  Constructor for welcome page.
- JButton getStart ()
  gets the start button
- JButton load ()
  gets the load button
- JButton highScores ()
  gets the button to display high score
- JButton tutorial ()
  gets the button to display instructions
- JButton exit ()
  gets the button to exit the program
- void addButton (JButton x)
  adds buttons to a panel
- void addListener (ActionListener buttonListener)
  adds action listener to the buttons

Private Attributes

- JButton start = new JButton("Start New Game")
- JButton load = new JButton("Load Game")
- JButton highScores = new JButton("High Scores")
- JButton tutorial = new JButton("Tutorial")
- JButton exit = new JButton("Exit")
- JPanel buttonPanel

7.11.1 Constructor & Destructor Documentation

7.11.1.1 Welcome()

```
view.Welcome.Welcome ( )
```

Constructor for welcome page.

sets the header and size of window, and add buttons to it.

- Set the header of the window
- Set the size of the window

Add buttons on the window

7.11.2 Member Function Documentation

7.11.2.1 addButton()

```
void view.Welcome.addButton (
             JButton x )
```

adds buttons to a panel

makes buttons align in the panel

7.11.2.2 addListener()

```
void view.Welcome.addListener (
             ActionListener buttonListener )
```

adds action listener to the buttons

Parameters

buttonListener	is the action listener

7.11.2.3 exit()

```
JButton view.Welcome.exit ( )
```

gets the button to exit the program

Returns

exit

7.11.2.4 getStart()

```
JButton view.Welcome.getStart ( )
```

gets the start button

Returns

start indicates to start a new game

7.11.2.5 highScores()

```
JButton view.Welcome.highScores ( )
```

gets the button to display high score

Returns

highScores

7.11.2.6 load()

```
JButton view.Welcome.load ( )
```

gets the load button

Returns

load indicates to load a new game

7.11.2.7 tutorial()

```
JButton view.Welcome.tutorial ( )
```

gets the button to display instructions

Returns

tutorial

7.11.3 Member Data Documentation

7.11.3.1 buttonPanel

```
JPanel view.Welcome.buttonPanel  [private]
```

Define a panel for the arrangement of buttons

7.11.3.2 exit

```
JButton view.Welcome.exit = new JButton("Exit") [private]
```

7.11.3.3 highScores

```
JButton view.Welcome.highScores = new JButton("High Scores") [private]
```

7.11.3.4 load

```
JButton view.Welcome.load = new JButton("Load Game") [private]
```

7.11.3.5 start

```
JButton view.Welcome.start = new JButton("Start New Game") [private]
```

Variable declarations for the page

- start a new game
- load the previous game
- display high score
- tutorial
- exit the game

7.11.3.6 tutorial

```
JButton view.Welcome.tutorial = new JButton("Tutorial") [private]
```

The documentation for this class was generated from the following file:

- src/view/Welcome.java

Chapter 8

File Documentation

8.1 src/model/Ball.java File Reference

This class represents a ball on the pong game.

Classes

- class model.Ball

Packages

- package model

8.1.1 Detailed Description

This class represents a ball on the pong game.

Ball

Author

Pongthusiastics

Date

13/11/2016

This class saves the information of a ball, including its position, size and the speed.

8.2 src/model/GameModel.java File Reference

This class represents a ball on the pong game.

Classes

- class model.GameModel

Packages

- package model

8.2.1 Detailed Description

This class represents a ball on the pong game.

GameModel

Author

Pongthusiastics

Date

13/11/2016

This class saves the information of a ball, including its position, size and the speed.

8.3 src/model/Paddle.java File Reference

This class defines a paddle.

Classes

- class model.Paddle

Packages

- package model

8.3.1 Detailed Description

This class defines a paddle.

Paddle

Author

Pongthusiastics

Date

13/11/2016

This class saves the information of a paddle, including its position, height, width, and inset between the paddle and the screen.

8.4 src/model/Player.java File Reference

This class represents a player for the game.

Classes

- class model.Player

Packages

- package model

8.4.1 Detailed Description

This class represents a player for the game.

Player

Author

Pongthusiastics

Date

13/11/2016

This class contains the information for a player, including number of life and his/her current score.

8.5 src/startGame/GameController.java File Reference

This class is the controller for the game.

Classes

- class startGame.GameController
- class **startGame.GameController.WelcomepageListener**

  action listener for the welcome page
- class **startGame.GameController.ModeListener**

  action listener for the game mode page
- class **startGame.GameController.TutorialListener**

  action listener for the tutorial page
- class **startGame.GameController.GameListener**

  action listener for the game page

Packages

- package startGame

8.5.1 Detailed Description

This class is the controller for the game.

GameController

Author

Pongthusiastics

Date

13/11/2016

This class cooperates with model and view and give direction to the game.

8.6 src/startGame/PongGame.java File Reference

This class starts the game.

Classes

- class startGame.PongGame

Packages

- package startGame

8.6.1 Detailed Description

This class starts the game.

PongGame

Author

Pongthusiastics

Date

13/11/2016

This class instantiates a model, view, and controller using the MVC model, and starts the game.

```
GameView view = new GameView();
GameModel model = new GameModel();
GameController controller = new GameController(view, model);
controller.display();
```

8.7 src/view/GameView.java File Reference

This class is the main view model.

Classes

- class view.GameView

Packages

- package view

8.7.1 Detailed Description

This class is the main view model.

GameView

Author

Pongthusiastics

Date

13/11/2016

This class import all different windows for display.

8.8 src/view/Mode.java File Reference

This class create the game mode window.

Classes

- class view.Mode

Packages

- package view

8.8.1 Detailed Description

This class create the game mode window.

Mode

Author

Pongthusiastics

Date

13/11/2016

This class create a frame and buttons for different game level

8.9 src/view/PongGameDisplay.java File Reference

This class construct the view of the pong game.

Classes

- class view.PongGameDisplay

Packages

- package view

8.9.1 Detailed Description

This class construct the view of the pong game.

PongGameDisplay

Author

Pongthusiastics

Date

13/11/2016

This class gets data from controller and display them on the screen

8.10 src/view/Tutorial.java File Reference

This class create the tutorial window.

Classes

- class view.Tutorial

Packages

- package view

8.10.1 Detailed Description

This class create the tutorial window.

Tutorial

Author

Pongthusiastics

Date

13/11/2016

This class display instruction for the game

8.11 src/view/Welcome.java File Reference

This class creates the display for welcome page.

Classes

- class view.Welcome

Packages

- package view

8.11.1 Detailed Description

This class creates the display for welcome page.

Welcome

Author

Pongthusiastics

Date

13/11/2016

This class defines buttons for options in the welcome page.

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