

CST338-FinalProject

Larsen

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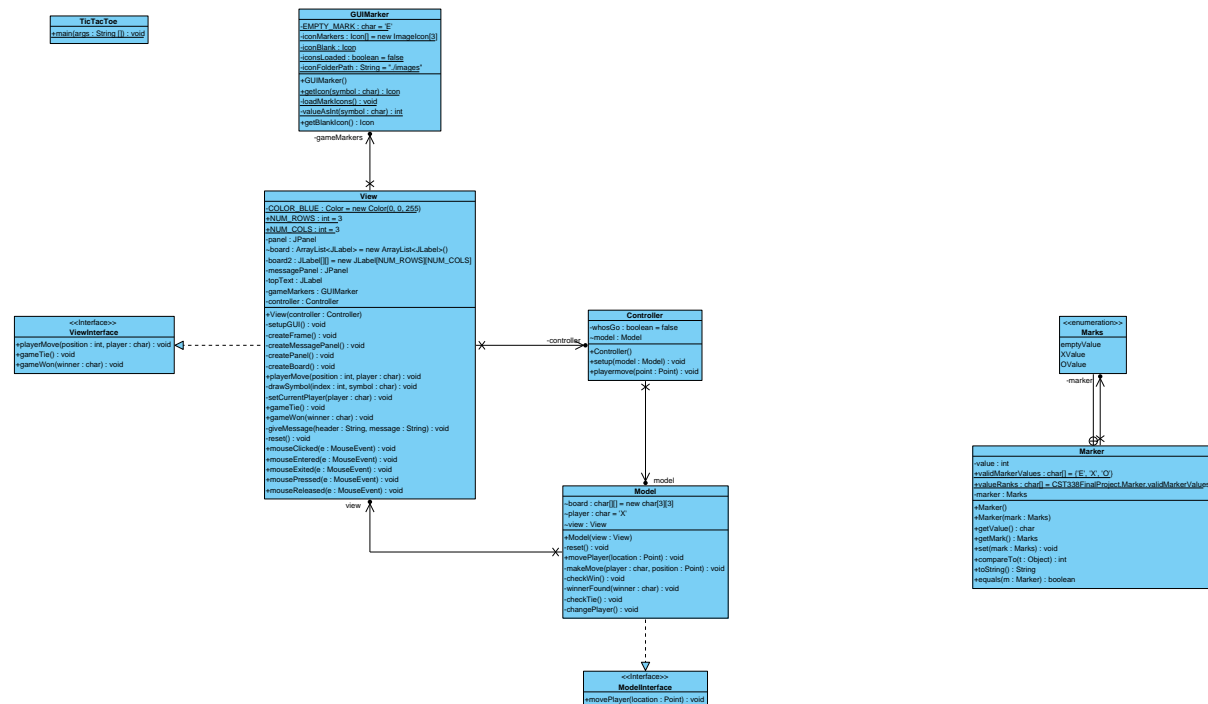
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Class Diagram








CST338FinalProject



Name	Value
Name	CST338FinalProject
Author	Larsen
Create Date Time	Oct 23, 2015 11:36:01 PM
Last Modified	Oct 23, 2015 11:38:09 PM
Teamwork Create Date Time	Dec 31, 1969 4:00:00 PM
Point Connector End To Compartment Member	true

Summary

Name	Description
GUIMarker	
TicTacToe	<p>/*</p> <p>* Subject: CST338</p> <p>* Student: Clarence Mitchell</p> <p>* Assignment: Final Project</p> <p>* ClassName: TicTacToe.java</p> <p>*</p> <p>*</p> <p>* Description</p> <p>* This final project is a Tic-Tac-Toe game using the Model-View-Controller</p> <p>* Design Pattern. Based on the following YouTube Video..</p> <p>* youtu.be/dTVVa2gfh8?list=PLHloD5GG1FOtFptRxTwqWAGDCF8HDiPTk</p> <p>*</p> <p>* It utilizes some of the GUI techniques from the class</p> <p>* such as JFrame, JPanel, JLabel, Icon, etc.</p> <p>*</p>

	<pre> */ ***** main class TicTacToe Definition ***** </pre>
 View	
 Controller	
 ViewInterface	<p>Subject: CST338 Student: Clarence Mitchell Assignment: Final Project ClassName: ViewInterface.java</p> <p>Description Interface for view --</p>
 Marks	<p>Enumerators</p> <p>The three standard values are supported.</p>
 Marker	<p>Subject: CST338 Student: Clarence Mitchell Assignment: Final Project ClassName: Marker.java</p> <p>Description Class Marker represents a mark on the tic-tac-toe board It has private members to hold the value. It also has methods to validate and set these data members.</p>
 Model	
 ModelInterface	<p>Subject: CST338 Student: Clarence Mitchell Assignment: Final Project ClassName: ModelInterface.java</p> <p>Description Interface for model --</p>


Details

GUIMarker

Name	Value
Active	false
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	public
Leaf	false
Root	false

Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM


Attributes

private EMPTY_MARK : char			
Description	----- Private Attributes ---		
Initial Value	'E'		
Type	 char		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

private iconMarkers : javax.swing.Icon			
Description	Holds a Marker icon for each valid board square.		
Initial Value	new ImageIcon[3]		
Type Modifier	[]		
Type	javax.swing.Icon		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	Larsen
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private iconBlank : javax.swing.Icon			
Type	javax.swing.Icon		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
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private iconsLoaded : boolean			
Initial Value	false		
Type	 boolean		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
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private iconFolderPath : String	
Initial Value	"/images"

Type	String		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

Operations

public GUIMarker ()		
Description	Marker() In: Nothing Out: Nothing Description: This is a default constructor that takes no values. It will create a empty Value.	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public getIcon (symbol : char) : javax.swing.Icon

Parameters	symbol		
	Multiplicity	Unspecified	
	Type	● char	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	Icon getIcon In: A symbol value that the caller wants an image for Out: An Icon containing the image		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name		Value
	Author		Larsen
	Create Date Time		Oct 23, 2015 11:36:00 PM
	Last Modified		Oct 23, 2015 11:37:17 PM

private loadMarkIcons () : void		
Description	void loadMarkIcons In: Nothing Out: Nothing Loads all of the marker icons from the images directory. If the images directory is not in the right place, then the user is prompted to select a directory where the images can be found.	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM


private valueAsInt (symbol : char) : int

Parameters	symbol		
	Multiplicity	Unspecified	
	Type	● char	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	int valueAsInt In: A marker object Out: An integer representing the value in icon marker		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name		Value
	Author		Larsen
	Create Date Time		Oct 23, 2015 11:36:00 PM
	Last Modified		Oct 23, 2015 11:37:17 PM

public getBlankIcon () : javax.swing.Icon		
Description	Icon getBlankIcon In: Nothing Out: An Icon object containing a blank marker.	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
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Relationships

Unnamed Association

From	Name	Value	
	End Model Element	 View	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	Unspecified	
	Aggregation Kind	None	
	Navigable	Non Navigable	
	Derived	false	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
Abstract	false		
Leaf	false		
Visibility	Unspecified		
Derived	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

TicTacToe

Name	Value
Description	<pre> /* * Subject: CST338 * Student: Clarence Mitchell * Assignment: Final Project * ClassName: TicTacToe.java * * * Description * This final project is a Tic-Tac-Toe game using the Model-View-Controller * Design Pattern. Based on the following YouTube Video.. * youtu.be/dTVVa2gfh8?list=PLhIoD5GG1FOtFptRxTwqWAGDCF8HDIPTK * * It utilizes some of the GUI techniques from the class * such as JFrames, JPanels, Labels, Icons, etc. * */ </pre>

	***** main class TicTacToe Definition *****	
Active	false	
Business Key Mutable	true	
Java Detail	N/A	
Business Model	false	
Visibility	public	
Leaf	false	
Root	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Operations

public main (args : String) : void		
Parameters	args	
	Multiplicity	Unspecified
	Type Modifier	[]
	Type	String
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
		Oct 23, 2015 11:37:17 PM
	Last Modified	Oct 23, 2015 11:37:17 PM
		PM
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM




View


Name	Value	
Active	false	
Business Key Mutable	true	
Java Detail	N/A	
Business Model	false	
Visibility	public	
Leaf	false	
Root	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Attributes

private COLOR BLUE : java.awt.Color			
Initial Value	new Color(0, 0, 255)		
Type	java.awt.Color		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
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public NUM_ROWS : int			
Description	----- Public Attributes ---		
Initial Value	3		
Type	 int		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		

Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

public NUM COLS : int			
Initial Value	3		
Type	 int		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
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private panel : javax.swing.JPanel			
Type	javax.swing.JPanel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
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package board : java.util.ArrayList			
Description	Dynamic array. This was covered in chapter 14 of book, it is sweet.		
Template Type Bind Info	N/A		
Initial Value	new ArrayList<JLabel>()		
Type	java.util.ArrayList		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
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private board2 : javax.swing.JLabel			
Initial Value	new JLabel[NUM_ROWS][NUM_COLS]		
Type Modifier	[]		
Type	javax.swing.JLabel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		


Project Management	Name	Value
	Author	Larsen
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private messagePanel : javax.swing.JPanel			
Type	javax.swing.JPanel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
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private topText : javax.swing.JLabel			
Type	javax.swing.JLabel		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
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private gameMarkers : GUIMarker	
Description	----- Private Attributes ---
Type	 GUIMarker

Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
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private controller : Controller			
Type	 Controller		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

Operations

public View (controller : Controller)

Parameters	controller		
	Multiplicity	Unspecified	
	Type	 Controller	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	View(Controller controller) In: Controller Out: Nothing Description: This is the only constructor. It takes a link to the main driver for the controller This is so the controller can decide what to do about user clicks		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

private setupGUI () : void		
Description	void setupGUI() In: Nothing Out: none Description: setups the board for playing	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

private createFrame () : void	
Description	void createFrame() In: Nothing



	Out: none Description: creates the fraem	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
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private createMessagePanel () : void		
Description	void createMessagePanel() In: Nothing Out: none Description: sets up the top message panel	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

private createPanel () : void		
Description	void void createPanel() In: Nothing Out: none Description: sets up the panel	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
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private createBoard () : void	
Description	void void createBoard() In: Nothing Out: none

	Description: draws the board	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
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public playerMove (position : int, player : char) : void		
Parameters	position	
	Multiplicity	Unspecified
	Type	 int
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
		Oct 23, 2015 11:37:17 PM
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		PM
	player	
	Multiplicity	Unspecified
	Type	 char
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
		Oct 23, 2015 11:37:17 PM
	Last Modified	Oct 23, 2015 11:37:17 PM
		PM
Description	void playerMove(int position, char player) In: position and player moving Out: none Description: marks players move	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	

Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
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private drawSymbol (index : int, symbol : char) : void		
Parameters	index	
	Multiplicity	Unspecified
	Type	● int
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
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		Oct 23, 2015 11:37:17 PM
	symbol	
	Multiplicity	Unspecified
	Type	● char
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
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Description	void drawSymbol(int index, char symbol) In: board location and symbol to place Out: none Description:updates the selected JLabel with the symbol of the player	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
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private setCurrentPlayer (player : char) : void

Parameters	player		
	Multiplicity	Unspecified	
	Type	● char	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	void setCurrentPlayer(char player) In: determines which player to play Out: none Description: updates the top text panel		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name		Value
	Author		Larsen
	Create Date Time		Oct 23, 2015 11:36:00 PM
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public gameTie () : void		
Description	void gameTie() In: none Out: none Description: displays message for tie game	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public gameWon (winner : char) : void

Parameters	winner		
	Multiplicity	Unspecified	
	Type	● char	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	void gameWon(char winner) In: winnder Out: none Description: displays message for winner		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name		Value
	Author		Larsen
	Create Date Time		Oct 23, 2015 11:36:00 PM
	Last Modified		Oct 23, 2015 11:37:17 PM

private giveMessage (header : String, message : String) : void

Parameters	header		
	Multiplicity	Unspecified	
	Type	String	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
	message		
	Multiplicity	Unspecified	
	Type	String	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
	Description	void gameWon(char winner) In: winnder Out: none Description: the giveMessage method prints a string to the top text panel	
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name		Value
	Author		Larsen
	Create Date Time		Oct 23, 2015 11:36:00 PM
	Last Modified		Oct 23, 2015 11:37:17 PM

private reset () : void	
Description	void reset() In: none Out: none Description: reset the board by setting the text on all the board labels
Leaf	false
Upper	1
Ordered	false

Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
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public mouseClicked (e : java.awt.event.MouseEvent) : void		
Parameters	e	
	Multiplicity	Unspecified
	Type	java.awt.event.MouseEvent
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
		Create Date Time
		Oct 23, 2015 11:36:00 PM
		Last Modified
		Oct 23, 2015 11:37:17 PM
Description	Mouse listeners	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public mouseEntered (e : java.awt.event.MouseEvent) : void		
Parameters	e	
	Multiplicity	Unspecified
	Type	java.awt.event.MouseEvent
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
		Create Date Time
		Oct 23, 2015 11:36:00 PM
		Last Modified
		Oct 23, 2015 11:37:17 PM
Description	end mouseClicked	

Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public mouseExited (e : java.awt.event.MouseEvent) : void		
Parameters	e	
	Multiplicity	Unspecified
	Type	java.awt.event.MouseEvent
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM
Description	end mouseEntered()	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM




public mousePressed (e : java.awt.event.MouseEvent) : void
--




Parameters	e		
	Multiplicity	Unspecified	
	Type	java.awt.event.MouseEvent	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	end mouseExited()		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name		Value
	Author		Larsen
	Create Date Time		Oct 23, 2015 11:36:00 PM
	Last Modified		Oct 23, 2015 11:37:17 PM


public mouseReleased (e : java.awt.event.MouseEvent) : void			
Parameters	e		
	Multiplicity	Unspecified	
	Type	java.awt.event.MouseEvent	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	end mousePressed		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		


Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Relationships

Unnamed Association				
To (gameMarkers)	Name	Value		
	End Model Element	 GUIMarker		
	Description	----- Private Attributes ---		
	Representative Attribute	 gameMarkers		
	Provide Property Getter Method	false		
	Provide Property Setter Method	false		
	Multiplicity	Unspecified		
	Visibility	private		
	Aggregation Kind	None		
	Navigable	Navigable		
	Derived	false		
	Derived Union	false		
	Read Only	false		
	Static	false		
	Leaf	false		
	Type	 GUIMarker		
	Project Management	Name	Value	
		Author	Larsen	
		Create Date Time	Oct 23, 2015 11:36:00 PM	
Abstract	false			
Leaf	false			
Visibility	Unspecified			
Derived	false			
Project Management	Name	Value		
	Author	Larsen		
	Create Date Time	Oct 23, 2015 11:36:00 PM		
	Last Modified	Oct 23, 2015 11:37:17 PM		
Unnamed Association				

To (controller)	Name	Value	
	End Model Element	 Controller	
	Representative Attribute	 controller	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	private	
	Aggregation Kind	None	
	Navigable	Navigable	
	Derived	false	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Type	 Controller	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
Abstract	false		
Leaf	false		
Visibility	Unspecified		
Derived	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	


Unnamed Realization		
From	 ViewInterface	
Visibility	Unspecified	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM
Unnamed Association		


From	Name	Value	
	End Model Element	 Model	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	Unspecified	
	Aggregation Kind	None	
	Navigable	Non Navigable	
	Derived	false	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
Abstract	false		
Leaf	false		
Visibility	Unspecified		
Derived	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

Controller

Name	Value	
Active	false	
Business Key Mutable	true	
Java Detail	N/A	
Business Model	false	
Visibility	public	
Leaf	false	
Root	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Attributes


private whosGo : boolean			
Initial Value	false		
Type	 boolean		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

package model : Model			
Type	 Model		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

Operations

public Controller ()	
Description	SET PLAYER O TO GO FIRST default constructor
Leaf	false

Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM




public setup (model : Model) : void		
Parameters	model	
	Multiplicity	Unspecified
	Type	 Model
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
		Create Date Time
		Oct 23, 2015 11:36:00 PM
		Last Modified
		Oct 23, 2015 11:37:17 PM
Description	setting up the controller with a model	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM


public playermove (point : java.awt.Point) : void

Parameters	point		
	Multiplicity	Unspecified	
	Type	java.awt.Point	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	when a potential move has been made, the controller sends this information to the model		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name		Value
	Author		Larsen
	Create Date Time		Oct 23, 2015 11:36:00 PM
	Last Modified		Oct 23, 2015 11:37:17 PM

Relationships

Unnamed Association

To (model)	Name		Value	
	End Model Element		 Model	
	Representative Attribute		 model	
	Provide Property Getter Method		false	
	Provide Property Setter Method		false	
	Multiplicity		Unspecified	
	Visibility		package	
	Aggregation Kind		None	
	Navigable		Navigable	
	Derived		false	
	Derived Union		false	
	Read Only		false	
	Static		false	
	Leaf		false	
	Type		 Model	
	Project Management		Name	Value
			Author	Larsen
			Create Date Time	Oct 23, 2015 11:36:00 PM
Abstract	false			
Leaf	false			
Visibility	Unspecified			
Derived	false			
Project Management	Name		Value	
	Author		Larsen	
	Create Date Time		Oct 23, 2015 11:36:00 PM	
	Last Modified		Oct 23, 2015 11:37:17 PM	
Unnamed Association				



From	Name	Value	
	End Model Element	 View	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	Unspecified	
	Aggregation Kind	None	
	Navigable	Non Navigable	
	Derived	false	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
Abstract	false		
Leaf	false		
Visibility	Unspecified		
Derived	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

ViewInterface

Name	Value
Description	Subject: CST338 Student: Clarence Mitchell Assignment: Final Project ClassName: ViewInterface.java Description Interface for view --
Active	false
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	public
Leaf	false


Root	false	
Stereotypes	Interface	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Operations


public playerMove (position : int, player : char) : void		
Parameters	position	
	Multiplicity	Unspecified
	Type	 int
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM
	player	
	Multiplicity	Unspecified
	Type	 char
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public gameTie () : void

Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public gameWon (winner : char) : void		
Parameters	winner	
	Multiplicity	Unspecified
	Type	 char
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Relationships

Unnamed Realization		
To	 View	
Visibility	Unspecified	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Marks

Name	Value	
Description	Enumerators The three standard values are supported.	
Active	false	
Business Key Mutable	true	
Java Detail	N/A	
Business Model	false	
Visibility	public	
Leaf	false	
Root	false	
Stereotypes	enumeration	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Enumeration Literals


emptyValue		
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

XValue		
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

OValue		
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Relationships

Unnamed Association


From	Name	Value	
	End Model Element	 Marker	
	Provide Property Getter Method	false	
	Provide Property Setter Method	false	
	Multiplicity	Unspecified	
	Visibility	Unspecified	
	Aggregation Kind	None	
	Navigable	Non Navigable	
	Derived	false	
	Derived Union	false	
	Read Only	false	
	Static	false	
	Leaf	false	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
Abstract	false		
Leaf	false		
Visibility	Unspecified		
Derived	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

Marker


Name	Value
Description	Subject: CST338 Student: Clarence Mitchell Assignment: Final Project ClassName: Marker.java Description Class Marker represents a mark on the tic-tac-toe board It has private members to hold the value. It also has methods to validate and set these data members.
Active	false
Business Key Mutable	true
Java Detail	N/A
Business Model	false
Visibility	public


Leaf	false	
Root	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Children


Name	Description
 Marks	Enumerators The three standard values are supported.


Attributes

private value : int			
Description	----- Private Attributes ---		
Type	 int		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

public validMarkerValues : char			
Description	----- Public Attributes --- validCardValues holds values that a card is allowed to be.		
Initial Value	{ 'E', 'X', 'O' }		
Type Modifier	[]		
Type	 char		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		

Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	


public valueRanks : char			
Initial Value	Marker.validMarkerValues		
Type Modifier	[]		
Type	 char		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

private marker : Marks			
Type	 Marks		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Operations

public Marker ()		
Description	Marker() In: Nothing Out: Nothing Description: This is a default constructor that takes no values. It will create a empty Value.	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM


public Marker (mark : Marks)			
Parameters	mark		
	Multiplicity	Unspecified	
	Type	 Marks	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	Marker(Marks) In: A char representing the mark value, a Out: Nothing Description: This is a constructor that takes a value for the Marker This will create a Marker of the specified value		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		

Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public getValue () : char		
Description	char getValue() In: Nothing Out: A char holding the card's value. Description: This is an assessor for the card's value.	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public getMark () : Marks		
Description	Marks getMark() In: Nothing Out: A mark value. Description: This is an assessor for the Marker's value.	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM


public set (mark : Marks) : void

Parameters	mark		
	Multiplicity	Unspecified	
	Type	 Marks	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	boolean set(mark) In: a mark to be set Out: none Description: This set's the Maker's value		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

public compareTo (t : Object) : int			
Parameters	t		
	Multiplicity	Unspecified	
	Type	Object	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Description	CompareTo In: An object Out: An int indicating if the object is less than, greater than, or equal to the object performing the comparison.		
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		




Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public toString () : String		
Description	String toString() In: Nothing Out: A String object containing the value of mark, Description: This returns the Makrs's value to the caller in String form.	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public equals (m : Marker) : boolean		
Parameters	m	
	Multiplicity	Unspecified
	Type	 Marker
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
Description	boolean equals In: A Marker object Out: A boolean value. True if the Markers are equal, false if otherwise.	
	Leaf	
	false	
	Upper	
	1	
	Ordered	
	false	
	Unique	
	true	
	Query	
	false	

Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Relationships


Unnamed Association				
To (marker)	Name	Value		
	End Model Element	 Marks		
	Representative Attribute	 marker		
	Provide Property Getter Method	false		
	Provide Property Setter Method	false		
	Multiplicity	Unspecified		
	Visibility	private		
	Aggregation Kind	None		
	Navigable	Navigable		
	Derived	false		
	Derived Union	false		
	Read Only	false		
	Static	false		
	Leaf	false		
	Type	 Marks		
	Project Management	Name	Value	
		Author	Larsen	
		Create Date Time	Oct 23, 2015 11:36:00 PM	
Abstract	false			
Leaf	false			
Visibility	Unspecified			
Derived	false			
Project Management	Name		Value	
	Author		Larsen	
	Create Date Time		Oct 23, 2015 11:36:00 PM	
	Last Modified		Oct 23, 2015 11:37:17 PM	


Model

Name	Value
Active	false
Business Key Mutable	true
Java Detail	N/A


Business Model	false		
Visibility	public		
Leaf	false		
Root	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

Attributes


package board : char			
Initial Value	new char[3][3]		
Type Modifier	[]		
Type	 char		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

package player : char			
Initial Value	'X'		
Type	 char		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		

Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

package view : View			
Type	 View		
Allow Empty Name	false		
Getter	false	Setter	false
Derived	false		
Multiplicity	Unspecified		
Java Detail	N/A		
Aggregation	None		
Derived Union	false		
Read Only	false		
Is ID	false		
Leaf	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

Operations

public Model (view : View)			
Parameters	view		
	Multiplicity	Unspecified	
	Type	 View	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		

Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

private reset () : void		
Description	runs through all the chars on the board and sets them to 0	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

public movePlayer (location : java.awt.Point) : void			
Parameters	location		
	Multiplicity	Unspecified	
	Type	java.awt.Point	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
Leaf	false		
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name	Value	
	Author	Larsen	
	Create Date Time	Oct 23, 2015 11:36:00 PM	
	Last Modified	Oct 23, 2015 11:37:17 PM	

private makeMove (player : char, position : java.awt.Point) : void
--

Parameters	player		
	Multiplicity	Unspecified	
	Type	● char	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
	position		
	Multiplicity	Unspecified	
	Type	java.awt.Point	
	Direction	inout	
	Java Detail	N/A	
	Project Management	Name	Value
		Author	Larsen
		Create Date Time	Oct 23, 2015 11:36:00 PM
		Last Modified	Oct 23, 2015 11:37:17 PM
	Leaf	false	
Upper	1		
Ordered	false		
Unique	true		
Query	false		
Project Management	Name		Value
	Author		Larsen
	Create Date Time		Oct 23, 2015 11:36:00 PM
	Last Modified		Oct 23, 2015 11:37:17 PM

private checkWin () : void	
Description	the checkWin method goes through all the possible ways for a win and calls the winnerFound method, if one of them is fulfilled
Leaf	false
Upper	1
Ordered	false
Unique	true
Query	false

Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM




private winnerFound (winner : char) : void		
Parameters	winner	
	Multiplicity	Unspecified
	Type	● char
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
Description	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM
	if a winner is found, the model alerts the view and resets the model	
	false	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM



private checkTie () : void		
Description	the checkTie method checks if all the locations on the board are filled	
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

private changePlayer () : void	
Description	changes the current player
Leaf	false

Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Relationships

Unnamed Association		
To (view)	Name	Value
	End Model Element	 View
	Representative Attribute	 view
	Provide Property Getter Method	false
	Provide Property Setter Method	false
	Multiplicity	Unspecified
	Visibility	package
	Aggregation Kind	None
	Navigable	Navigable
	Derived	false
	Derived Union	false
	Read Only	false
	Static	false
	Leaf	false
	Type	 View
	Project Management	Name
		Value
		Author
Abstract	false	
	false	
	Unspecified	
	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM
Unnamed Association		

From	Name		Value			
	End Model Element		 Controller			
	Provide Property Getter Method		false			
	Provide Property Setter Method		false			
	Multiplicity		Unspecified			
	Visibility		Unspecified			
	Aggregation Kind		None			
	Navigable		Non Navigable			
	Derived		false			
	Derived Union		false			
	Read Only		false			
	Static		false			
	Leaf		false			
	Project Management		Name		Value	
			Author		Larsen	
			Create Date Time		Oct 23, 2015 11:36:00 PM	
Abstract		false				
Leaf		false				
Visibility		Unspecified				
Derived		false				
Project Management		Name		Value		
		Author		Larsen		
		Create Date Time		Oct 23, 2015 11:36:00 PM		
		Last Modified		Oct 23, 2015 11:37:17 PM		
Unnamed Realization						
From		 ModelInterface				
Visibility		Unspecified				
Project Management		Name		Value		
		Author		Larsen		
		Create Date Time		Oct 23, 2015 11:36:00 PM		
		Last Modified		Oct 23, 2015 11:37:17 PM		

ModelInterface


Name	Value
Description	Subject: CST338 Student: Clarence Mitchell Assignment: Final Project ClassName: ModelInterface.java

	Description Interface for model --	
Active	false	
Business Key Mutable	true	
Java Detail	N/A	
Business Model	false	
Visibility	public	
Leaf	false	
Root	false	
Stereotypes	Interface	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Operations

public movePlayer (location : java.awt.Point) : void		
Parameters	location	
	Multiplicity	Unspecified
	Type	java.awt.Point
	Direction	inout
	Java Detail	N/A
	Project Management	Name
		Value
		Author
		Larsen
	Project Management	Create Date Time
		Oct 23, 2015 11:36:00 PM
		Last Modified
		Oct 23, 2015 11:37:17 PM
Leaf	false	
Upper	1	
Ordered	false	
Unique	true	
Query	false	
Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM

Relationships

Unnamed Realization	
To	 Model
Visibility	Unspecified

Project Management	Name	Value
	Author	Larsen
	Create Date Time	Oct 23, 2015 11:36:00 PM
	Last Modified	Oct 23, 2015 11:37:17 PM