Object Oriented Programming

FINAL PROJECT

Ping Pong using JAVA



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PROJECT SPESIFICATION

• Use of primitive data

• Use of instance variables and objects

• Use of imported classes

• Use of custom-built classes & methods

• Use of Java Collection

• Use of exception handling

• Use of inheritance, polymorphism and interfaces

• Detailed Documentation Commenting

• Detailed Commenting of Methods

• Detailed Code Commenting

Solution Design

* Using Jframe for extension means that we will make a base window on which other components rely, namely the menu bar, panels, labels, text fields, buttons, etc.
* Using pack once we create the game panel this is like a painting. We’re going to use the game frame class so it will fit with the panel. So we don’t really need to set the Jframe because their going to adjust themselves.
* In Panel class, for the ping pong table, I use the standard ping pong table.
* Ball Diameter used to resize the ball
* A thread in Java is the direction or path that is taken while a program is being executed. Generally, all the programs have at least one thread, known as the main thread, that is provided by the JVM or Java Virtual Machine at the starting of the program's execution
* The Graphics. g is a kind of painting tool. We're telling it what color to paint with and then what shape to paint, where it goes, and how big it is. Graphics 2D Object. The argument for paintComponent() is a type Graphics which is from java.awt.Graphics: public void paintComponent(Graphics g) {}
* ActionListener in Java is a class that is responsible for handling all action events such as when the user clicks on a component. Mostly, action listeners are used for JButtons. An ActionListener can be used by the implements keyword to the class definition.
* The super keyword in Java is a reference variable which is used to refer immediate parent class object. So, Whenever you create the instance of subclass, an instance of parent class is created implicitly which is referred by super reference variable.

Class Diagram UML link: https://online.visual-paradigm.com/app/diagrams/#diagram:proj=0&type=ClassDiagram&width=11&height=8.5&unit=inch