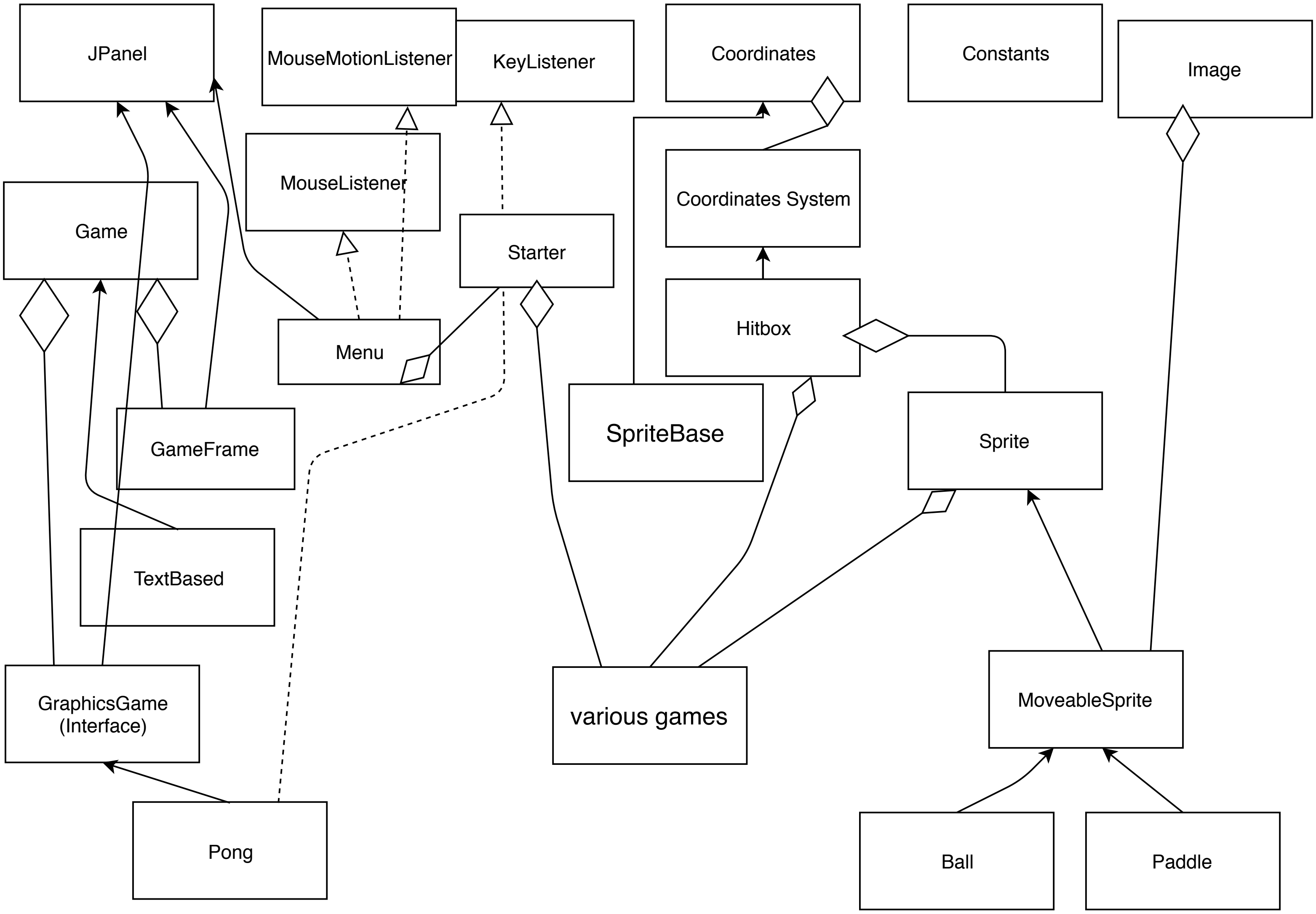
Capstone UML Diagram (rough draft)



Methods

```
public CoordinateSystem(int x, int y, int xDimension, int yDimension)
// sets left right up down corners

public void rotateRadians(double radians)
 // rotates coordiantes
public void rotateDegrees(double degrees)
 // converts degrees to radians and then rotates them

public Coordinates getCenter()

public Coordinates getBottomRight()

public Coordinates getBottomLeft()

public Coordinates getTopRight()

public Coordinates getTopLeft()
public abstract String getName();

public abstract void run();
\\ runs the window and speficed game

public void run (Game g)
\\ sets up window and containers

public abstract void paintComponet (Graphics g);
public Hitbox (int x, int y, int xDimension, int yDimension) {
super(x, y, xDimension, yDimension); // sets up a
rectangle around this object that is easier to interact with

publicMoveableSprite(Imagepic, intx, inty) {
super(pic, x, y); \\ allows a sprite to  move

public Sprite (Image pic, int x, int y) {
super(pic, x, y);
\\ coverges a sprite and a hitbox together for convenience
public Hitbox getHitbox()
\\ returns this box
public int getAngle()
public void setAngle(int)
public void play()
public String playTest()//prints out diagnostics
public int getSpeed()
public void setSpeed(int)
public Ball getLastBall()
public Ball setLastBall(Ball)
```

Fields

```
public static final double PI = Math.PI;
private Coordinates topLeft;
private Coordinates topRight;
private Coordinates bottomLeft;
private Coordinates bottomRight;
private Coordinates center;
private int width;
private int height;
private int x, y; // measures input coordinates
public AffineTransform getCoordinates()
public void verticalShift(double dy)
public void horizontalShift(double dx)
private Image picture;
private int picHeight;
private int picWidth;
private String name;
private int angle;
private int speed;
private Ball lastBall;
public static final boolean MAX;
public static final boolean TEST;
```