ZIEN CODE - COPYRIGHT OF AKIB SHAHJAHAN

Assets.java

```
import com.akibshahjahan.framework.Image;
import com.akibshahjahan.framework.Music;
import com.akibshahjahan.framework.Sound;
public class Assets
      public static Image splash, image, backgroundling, gameOverling, zienling,
tapelmg, cutTapelmg, barlmg, restartImg, playAgainImg, pauseImg, resumeImg,
tapToPlayImg, centuryClubImg;
  public static Sound beepSound, endSound;
  public static Music music;
  public static void load(SampleGame sampleGame)
     music = sampleGame.getAudio().createMusic("music.wav");
     music.setLooping(true);
     music.setVolume(0.45f);
     music.play();
  }
}
Bar.java
public class Bar
      private int barX = 550;
      private int barY, width, height;
      public Bar(int y, int w, int h)
             barY = y;
             width = w;
             height = h;
      }
      public int getBarX()
             return barX;
      public int getBarY()
             return barY;
      public int getWidth()
```

```
return width;
       }
       public int getHeight()
              return height;
       }
       public void setBarX(int barX)
              this.barX = barX;
       public void setBarY(int barY)
              this.barY = barY;
       }
       public void setWidth(int width)
              this.width = width;
       public void setHeight(int height)
              this.height = height;
       }
}
CutTape.java
import android.graphics.Rect;
public class CutTape
{
       private int tapeY;
       private int tapeX = 550;
       private int speedY = -5;
       private int height;
       private int width;
       private boolean scoreOn = true;
       public Rect rect = new Rect(0,0,0,0);
       private Zien z = GameScreen.getZien();
       public CutTape(int y, int h, int w)
       {
              tapeY = y;
              height = h;
              width = w;
              rect = new Rect();
       }
```

```
public void update()
             tapeY += speedY;
             if (tapeY <= -height)</pre>
                    tapeY = height*5;
             }
             rect.set((int)(tapeX+width/4)-18, tapeY + 80, (int)(tapeX+width/4)-18+(int)
(width/2), (tapeY+80)+76);
             if(Rect.intersects(rect, z.rect)&&scoreOn)
             {
                    GameScreen.setScore();
                    GameScreen.setBar(true);
                    GameScreen.makeSound(1);
             }
      }
      public int getTapeX()
             return tapeX;
      public int getTapeY()
             return tapeY;
      }
      public int getSpeedY()
             return speedY;
      public void setTapeX(int tapeX)
             this.tapeX = tapeX;
      public void setTapeY(int tapeY)
             this.tapeY = tapeY;
      public void setSpeedY(int speedY)
             this.speedY = speedY;
      }
      public void setScoreOn(boolean b)
```

```
scoreOn = b;
      }
}
GameScreen.java
import java.util.List;
import android.graphics.Color;
import android.graphics.Paint;
import android.graphics.Typeface:
import com.akibshahjahan.framework.Game;
import com.akibshahjahan.framework.Graphics;
import com.akibshahjahan.framework.Image;
import com.akibshahjahan.framework.Input.TouchEvent;
import com.akibshahjahan.framework.Screen;
import com.akibshahjahan.framework.Sound;
public class GameScreen extends Screen
{
      enum GameState
             Ready, Play, Paused, Over
      }
      GameState state = GameState.Ready;
      private static Zien zien;
      private static boolean barOn = false;
      private static int score = 0;
      private static int presses = 0;
      private Image zienImg, backgroundImg, tapeImg, cutTapeImg, barImg,
gameOverImg, restartImg, playAgainImg, pauseImg, resumeImg, tapToPlayImg,
centuryClubImg;
      private static Sound beepSound, endSound;
      private static Tape tape1, tape3, tape5;
      private static CutTape tape2, tape4, tape6;
      private static Bar bar;
      Paint paint, paint2;
      static int getWidth = 800;
      static int getHeight = 480;
      static int tileHeight = getHeight/2;
      static int tileWidth = 100;
      public GameScreen(Game game)
             super(game);
             // Initialize game objects here
             tape1 = new Tape(0, tileHeight, tileWidth);
             tape2 = new CutTape(tileHeight, tileHeight, tileWidth);
```

```
tape3 = new Tape(tileHeight*2, tileHeight, tileWidth);
             tape4 = new CutTape(tileHeight*3, tileHeight, tileWidth);
             tape5 = new Tape(tileHeight*4, tileHeight, tileWidth);
             tape6 = new CutTape(tileHeight*5, tileHeight, tileWidth);
             zien = new Zien((int)(getWidth/3.6), (int)(getHeight/2.6));
             bar = new Bar(0, tileWidth, getHeight);
             // backgroundlmg not set
             zienImg = Assets.zienImg;
             tapeImg = Assets.tapeImg;
             cutTapeImg = Assets.cutTapeImg:
             barlmg = Assets.barlmg;
             gameOverImg = Assets.gameOverImg;
             restartImg = Assets.restartImg;
             playAgainImg = Assets.playAgainImg;
             pauseImg = Assets.pauseImg;
             resumeImg = Assets.resumeImg;
             beepSound = Assets.beepSound;
             endSound = Assets.endSound;
             tapToPlayImg = Assets.tapToPlayImg;
             centuryClubImg = Assets.centuryClubImg;
             // paint
             Typeface tf = Typeface.create("Abadi MT Condensed Extra Bold",
Typeface.BOLD);
             paint = new Paint();
             paint.setTypeface(tf);
             paint.setTextSize(60);
             paint.setTextAlign(Paint.Align.CENTER);
             paint.setAntiAlias(true);
             paint.setColor(Color.WHITE);
             paint2 = new Paint();
             paint.setTypeface(tf);
             paint2.setTextSize(100);
             paint2.setTextAlign(Paint.Align.CENTER);
             paint2.setAntiAlias(true);
             paint2.setColor(Color.WHITE);
      public void update(float deltaTime)
             List touchEvents = game.getInput().getTouchEvents();
             if(state == GameState.Ready){
                   updateReady(touchEvents);
             if(state == GameState.Play){
                   updatePlay(touchEvents, deltaTime);
             if(state == GameState.Paused){
                   updatePaused(touchEvents);
             if(state == GameState.Over){
```

```
updateGameOver(touchEvents);
             }
      }
      private void updateReady(List touchEvents)
             if(touchEvents.size()>0){
                    state = GameState.Play;
                    touchEvents.clear();
                    presses = 0;
                    score = 0:
             }
      }
      // similar to keypressed and run methods
      private void updatePlay(List touchEvents, float deltaTime)
             // 1. all touch input is handled here:
             int len = touchEvents.size();
             for(int i = 0; i < len; i++)
             {
                    TouchEvent event = (TouchEvent)touchEvents.get(i);
                    if(event.type == TouchEvent.TOUCH_DOWN)
                          if (inBounds(event, 0, 0, 70, 70))
                                 pause();
                          else if(inBounds(event, 100, 50, 700, 430) && zien.getSpeedX()
==0)
                          {
                                 zien.move();
                          }
                    }
             }
             // 2. Call individual update() methods here.
             // This is where all the game updates happen
             // aka all the run() methods stuff
             zien.update();
             tape1.update();
             tape2.update();
             tape3.update();
             tape4.update();
             tape5.update();
             tape6.update();
             // 3. check if game is over
             if(presses>score&&zien.getSpeedX()<0&&zien.getCenterX()<(319-
zien.getWidth()))
             {
```

```
makeSound(2);
                    state = GameState.Over;
             if(score==999)
             {
                    makeSound(2);
                    state = GameState.Over;
             }
      }
      private boolean inBounds(TouchEvent event, int x, int y, int width, int height)
             if (event.x > x && event.x < x + width - 1 && event.y > y && event.y < y +
height - 1)
             {
                    return true;
             }
             else
             {
                    return false;
             }
      }
      private void updatePaused(List touchEvents)
             int len = touchEvents.size();
             zien.update();
             tape1.update();
             tape2.update();
             tape3.update();
             tape4.update();
             tape5.update();
             tape6.update();
             for (int i = 0; i < len; i++) {
                    TouchEvent event = (TouchEvent)touchEvents.get(i);
                    if (event.type == TouchEvent.TOUCH_UP) {
                           if(inBounds(event, 150, 60, 500, 150)) { // tap resume
                                 resume();
                           if(inBounds(event, 150, 260, 500, 150)) // tap restart
                                 score = 0;
                                 presses = 0;
                                 state = GameState.Ready;
                           }
                    }
             }
      }
      private void updateGameOver(List touchEvents) {
             int len = touchEvents.size();
```

```
zien.update();
             tape1.update();
             tape2.update();
             tape3.update():
             tape4.update();
             tape5.update();
             tape6.update();
             for (int i = 0; i < len; i++)
                   TouchEvent event = (TouchEvent)touchEvents.get(i);
                   if (event.type == TouchEvent.TOUCH UP)
                          if(inBounds(event, 170, 250, 460, 130)) // tap "Play Again"
                                 score = 0;
                                 presses = 0;
                                 state = GameState.Ready;
                          }
                   }
             }
      }
      // similar to paint method
      @Override
      public void paint(float deltaTime)
             Graphics g = game.getGraphics();
             g.drawlmage(Assets.backgroundlmg, 0, 0, 0, 0, getWidth, getHeight);
             g.drawlmage(zienlmg, zien.getCenterX(),zien.getCenterY(),zien.getCenterX
(),zien.getCenterY(), zien.getWidth(), zien.getHeight());
             g.drawlmage(tapelmg, tape1.getTapeX(), tape1.getTapeY(),tape1.getTapeX
(), tape1.getTapeY(), tileWidth, tileHeight);
             g.drawlmage(tapelmg, tape3.getTapeX(), tape3.getTapeY(),tape3.getTapeX
(), tape3.getTapeY(), tileWidth, tileHeight);
             g.drawlmage(tapelmg, tape5.getTapeX(), tape5.getTapeY(),tape5.getTapeX
(), tape5.getTapeY(), tileWidth, tileHeight);
             g.drawlmage(cutTapeImg, tape2.getTapeX(), tape2.getTapeY
(),tape2.getTapeX(), tape2.getTapeY(),tileWidth, tileHeight);
             g.drawlmage(cutTapeImg, tape4.getTapeX(), tape4.getTapeY
(),tape4.getTapeX(), tape4.getTapeY(), tileWidth, tileHeight);
             g.drawlmage(cutTapelmg, tape6.getTapeX(), tape6.getTapeY
(),tape6.getTapeX(), tape6.getTapeY(), tileWidth, tileHeight);
             if(state == GameState.Play)
                   g.drawString(rightJustified(score), 740, 50, paint);
                   g.drawlmage(pauselmg, 0, 0, 0, 0, 70, 70);
             }
```

```
if(barOn)
                     g.drawlmage(barlmg, bar.getBarX(), bar.getBarY(),bar.getBarX(),
bar.getBarY(), bar.getWidth(), bar.getHeight());
              if (state == GameState.Ready){
                     drawReadyUI();
              if (state == GameState.Play){
                     drawPlayUI();
              if (state == GameState.Paused){
                     drawPausedUI();
              if (state == GameState.Over){
                     drawOverUI();
              }
              // for collision detection
              g.drawRect((int)Zien.rect.left, (int)Zien.rect.top, (int)Zien.rect.width(), (int)
Zien.rect.height(), Color.RED);
              g.drawRect((int)tape2.rect.left, (int)tape2.rect.top, (int)tape2.rect.width(), (int)
tape2.rect.height(), Color.RED);
              g.drawRect((int)tape4.rect.left, (int)tape4.rect.top, (int)tape4.rect.width(), (int)
tape4.rect.height(), Color.RED);
              g.drawRect((int)tape6.rect.left, (int)tape6.rect.top, (int)tape6.rect.width(), (int)
tape6.rect.height(), Color.RED);
              g.drawRect((int)tape1.rect.left, (int)tape1.rect.top, (int)tape1.rect.width(), (int)
tape1.rect.height(), Color.RED);
              g.drawRect((int)tape3.rect.left, (int)tape3.rect.top, (int)tape3.rect.width(), (int)
tape3.rect.height(), Color.RED);
              g.drawRect((int)tape5.rect.left, (int)tape5.rect.top, (int)tape5.rect.width(), (int)
tape5.rect.height(), Color.RED);
              //**/
       }
       private void nullify()
              // Set all variables to null. You will be recreating them in the
              // constructor.
              paint = null;
              zienImg = null;
              backgroundlmg = null;
              tapeImg = null;
              cutTapeImg = null;
              barlmg = null;
              gameOverImg = null;
              // Call garbage collector to clean up memory.
              System.gc();
```

```
}
private void drawReadyUI()
      Graphics g = game.getGraphics();
      zien.update();
      tape1.update();
      tape2.update();
      tape3.update();
      tape4.update();
      tape5.update();
      tape6.update();
      g.drawARGB(155, 0, 0, 0);
      //g.drawString("Tap to Start", 400, 240, paint);
      g.drawlmage(tapToPlaylmg, 225, 190,225,190, 350, 100);
      if(SampleGame.settings.getInt("highscore",0)>=100)
      {
             g.drawlmage(centuryClublmg, 10, 425, 10, 425, 260, 50);
      }
}
private void drawPlayUI()
      Graphics g = game.getGraphics();
}
private void drawPausedUI()
      Graphics g = game.getGraphics();
      // Darken the entire screen to display the Paused screen.
      g.drawARGB(155, 0, 0, 0);
      //g.drawString("Resume", 400, 165, paint2);
      g.drawString(rightJustified(score), 740, 50, paint);
      g.drawlmage(resumelmg, 150, 60, 150, 60, 500, 150);
      g.drawlmage(restartlmg, 150, 260, 130, 260, 500, 150);
      //g.drawString("Menu", 400, 360, paint2);
}
private void drawOverUI()
      Graphics g = game.getGraphics();
      g.drawARGB(155, 0, 0, 0);
      g.drawlmage(gameOverlmg, 70, 40, 70, 40, 660, 200);
      g.drawString(rightJustified(score), 740, 50, paint);
      g.drawlmage(playAgainImg, 170, 250, 170, 250, 460, 140);
      if(score>SampleGame.settings.getInt("highscore",0))
      {
             g.drawString("High Score: "+score, 400, 448, paint);
             SampleGame.editor.putInt("highscore", score);
             SampleGame.editor.commit();
      }
      else
      {
```

```
g.drawString("High Score: "+SampleGame.settings.getInt("highscore",
0), 400, 448, paint);
      }
      @Override
      public void pause()
             if (state == GameState.Play)
                   state = GameState.Paused;
      }
      @Override
      public void resume()
             if (state == GameState.Paused)
             {
                   state = GameState.Play;
             }
      }
      @Override
      public void dispose()
      }
      @Override
      public void backButton()
      {
             pause();
      private void goToMenu()
             game.setScreen(new MainMenuScreen(game));
      public static String rightJustified(int num)
             String s = ""+num;
             if(s.length()==1)
             {
                   s = " "+num;
             else if(s.length()==2)
                   s = " +num;
             return s;
```

```
}
public static int getTheHeight()
      return getHeight;
public static void reverseZien()
      zien.moveLeft();
}
public static Zien getZien ()
      return zien;
public static void setBar(boolean b)
      barOn = b;
public static int getScore()
      return score;
public static void setScore()
      score++;
      tape2.setScoreOn(false);
      tape4.setScoreOn(false);
      tape6.setScoreOn(false);
}
public static void setScoreOn()
      tape2.setScoreOn(true);
      tape4.setScoreOn(true);
      tape6.setScoreOn(true);
}
public static void setPresses()
{
      presses++;
}
// 1 as argument is for scoring
// 2 argument is for when game is over
public static void makeSound(int i)
      if(i==1)
```

```
beepSound.play(1.00f);
            }
            if(i==2)
            {
                  endSound.play(4.00f);
            }
      }
}
LoadingScreen.java
import com.akibshahjahan.framework.Game;
import com.akibshahjahan.framework.Graphics;
import com.akibshahjahan.framework.Graphics.ImageFormat;
import com.akibshahjahan.framework.Screen;
public class LoadingScreen extends Screen
  public LoadingScreen(Game game)
    super(game);
  }
  @Override
  public void update(float deltaTime)
    Graphics g = game.getGraphics();
    //Assets.menu = g.newImage("menu.png", ImageFormat.RGB565);
    Assets.backgroundlmg = g.newlmage("background.png", ImageFormat.RGB565);
    Assets.zienlmg = g.newlmage("zien.png", ImageFormat.ARGB4444);
    Assets.tapeImg = g.newImage("tape.png", ImageFormat.ARGB4444);
    Assets.cutTapeImg = g.newImage("cutTape.png", ImageFormat.ARGB4444);
    Assets.barlmg = q.newlmage("yellowBar.png", ImageFormat.RGB565);
    Assets.gameOverImg = g.newImage("gameOver.png", ImageFormat.RGB565);
    Assets.restartImg = g.newImage("restart.png", ImageFormat.RGB565);
    Assets.playAgainImg = q.newImage("playAgain.png", ImageFormat.RGB565);
    Assets.pauseImg = g.newImage("pause.png", ImageFormat.RGB565);
    Assets.resumeImg = g.newImage("resume.png", ImageFormat.RGB565);
    Assets.tapToPlayImg = g.newImage("tapToPlay.png", ImageFormat.RGB565);
    Assets.centuryClubImg = g.newImage("centuryClub.png", ImageFormat.RGB565);
    Assets.beepSound = game.getAudio().createSound("beep.mp3");
    Assets.endSound = game.getAudio().createSound("end.mp3");
    game.setScreen(new MainMenuScreen(game));
  }
```

@Override

```
public void paint(float deltaTime)
    Graphics g = game.getGraphics();
    g.drawlmage(Assets.splash, 0, 0);
  }
  @Override
  public void pause()
  }
  @Override
  public void resume()
  }
  @Override
  public void dispose()
  }
  @Override
  public void backButton()
MainMenuScreen.java
import java.util.List;
import com.akibshahjahan.framework.Game;
import com.akibshahjahan.framework.Graphics;
import com.akibshahjahan.framework.Screen;
import com.akibshahjahan.framework.Input.TouchEvent;
public class MainMenuScreen extends Screen
  public MainMenuScreen(Game game)
    super(game);
  }
  @Override
  public void update(float deltaTime)
      game.setScreen(new GameScreen(game));
  }
```

```
private boolean inBounds(TouchEvent event, int x, int y, int width, int height)
     if (event.x > x && event.x < x + width - 1 && event.y > y && event.y < y + height - 1)
     {
       return true;
     else
       return false;
     }
  }
  @Override
  public void paint(float deltaTime)
     Graphics g = game.getGraphics();
  @Override
  public void pause()
  }
  @Override
  public void resume()
  }
  @Override
  public void dispose()
  }
  @Override
  public void backButton()
     android.os.Process.killProcess(android.os.Process.myPid());
SampleGame.java
import android.content.SharedPreferences;
```

}

import com.akibshahjahan.framework.Screen;

public class SampleGame extends AndroidGame

import com.akibshahjahan.framework.implementation.AndroidGame;

```
{
  public static String map;
  boolean firstTimeCreate = true;
  public static SharedPreferences settings;
  public static SharedPreferences.Editor editor;
  @Override
  public Screen getInitScreen()
    if (firstTimeCreate)
       Assets.load(this);
       firstTimeCreate = false;
    }
     settings = getSharedPreferences("ZIEN_PREFS", 0);
         editor = settings.edit();
         return new SplashLoadingScreen(this);
  }
  @Override
  public void onBackPressed()
    getCurrentScreen().backButton();
  }
  @Override
  public void onResume()
    super.onResume();
    Assets.music.play();
  }
  @Override
  public void onPause()
    super.onPause();
    Assets.music.pause();
}
SplashLoadingScreen.java
import com.akibshahjahan.framework.Game;
import com.akibshahjahan.framework.Graphics;
import com.akibshahjahan.framework.Screen;
import com.akibshahjahan.framework.Graphics.ImageFormat;
public class SplashLoadingScreen extends Screen
{
  public SplashLoadingScreen(Game game)
```

```
{
  super(game);
@Override
public void update(float deltaTime)
  Graphics g = game.getGraphics();
  Assets.splash= g.newImage("splash.png", ImageFormat.RGB565);
  game.setScreen(new LoadingScreen(game));
}
@Override
public void paint(float deltaTime)
}
@Override
public void pause()
}
@Override
public void resume()
}
@Override
public void dispose()
}
@Override
public void backButton()
```

Tape.java

```
import android.graphics.Rect;
public class Tape
{
         private int tapeY;
         private int tapeX = 550;
         private int speedY = -5;
```

```
private int cycles = 0;
private int height;
private int width;
public Rect rect = new Rect(0,0,0,0);
private Zien z = GameScreen.getZien();
public Tape(int y, int h, int w)
      tapeY = y;
       height = h;
       width = w;
       rect = new Rect();
}
public void update()
       tapeY += speedY;
       if (tapeY <= -height){</pre>
              tapeY = height*5;
       if (tapeY \le 0)
              cycles++;
       }
       rect.set(tapeX, tapeY-45, tapeX+10, tapeY+height+45);
       if(Rect.intersects(rect, z.rect))
       {
              GameScreen.reverseZien();
       }
}
public int getCycles()
       return cycles;
}
public int getTapeX()
       return tapeX;
public int getTapeY()
       return tapeY;
public int getSpeedY()
       return speedY;
}
```

```
public void setTapeX(int tapeX)
             this.tapeX = tapeX;
      }
      public void setTapeY(int tapeY)
             this.tapeY = tapeY;
      }
      public void setSpeedY(int speedY)
             this.speedY = speedY;
      }
}
Zien.java
import android.graphics.Rect;
import java.util.Random;
public class Zien
      final int MOVESPEED = 20;
      private int centerX = 140;
      private int centerY = 140;
      private int speedX = 0;
      private int limit1 = 0;
      private int limit2 = 390;
      private int limit3 = limit2+60;
      private int width, height;
      private boolean animation = true;
      private double horAnim = 0;
      private double verAnim = 0;
      private double horLeftAnim = 0;
      private double verLeftAnim = 0;
      double animationSpeed;
      double maxAnimationSpeed = 20; //lower means faster
      double minAnimationSpeed = 45; //higher means slower
      public static Rect rect = new Rect(0,0,0,0);
      public Zien(int w, int h)
      {
             setWidth(w);
             setHeight(h);
      }
      public void update()
      {
             //animation = false; // for testing purpose
```

```
if(animation)
            {
                   setAnimationSpeed();
                   if(horLeftAnim<=2)
                   {
                         Random gen = new Random();
                         horLeftAnim = gen.nextInt(31)+50;
                         horAnim = (horLeftAnim/animationSpeed);
                         int direction = gen.nextInt(2);
                         if(direction==0)
                         {
                                horAnim = (horLeftAnim/animationSpeed)*-1;
                   if(verLeftAnim<=2)
                         Random gen = new Random();
                         verLeftAnim = gen.nextInt(31)+50;
                         verAnim = (verLeftAnim/animationSpeed);
                         int direction = gen.nextInt(2);
                         if(direction==0)
                         {
                                verAnim = (verLeftAnim/animationSpeed)*-1;
                         }
                   if(centerX+horAnim+getWidth()<limit3&&centerX+horAnim>0)
                   {
                         centerX+=horAnim;
                         horLeftAnim -= Math.abs(horAnim);
                   }
                   else
                   {
                         horLeftAnim = 0;
                   if(centerY+verAnim+getHeight()<GameScreen.getTheHeight()</pre>
&&centerY+verAnim>0)
                   {
                         centerY+=verAnim;
                         verLeftAnim -= Math.abs(verAnim);
                   else
                   {
                         verLeftAnim = 0;
                   }
            }
            if(speedX!=0 && centerX+speedX<limit2 && centerX+speedX>limit1 &&!
animation)
            {
                   centerX +=speedX;
            }
            else
```

```
{
                   stop();
                   GameScreen.setScoreOn();
                   animation = true;
             }
             if(centerX+speedX>=limit2)
                   moveLeft();
             }
             if(centerX<=limit1)
                   stop();
                   animation = true;
             if(centerX<100)
                   GameScreen.setBar(false);
             }
             rect.set((int)(centerX+(getWidth()/1.24)), (int)(centerY+getHeight()/2.3), (int)
(centerX+(getWidth()/1.24))+(int)(getWidth()/8.5), (int)(centerY+getHeight()/2.3)+(int)
(getHeight()/11));
      public void move()
             GameScreen.setPresses();
             horLeftAnim = 0;
             verLeftAnim = 0;
             animation = false;
             moveRight();
      }
      public void moveRight()
             speedX = MOVESPEED;
      }
      public void moveLeft()
      {
             speedX = -MOVESPEED;
      }
      public void stop()
             speedX = 0;
      public void setAnimationSpeed()
```

```
{
      animationSpeed = minAnimationSpeed - GameScreen.getScore()/3;
      if(animationSpeed<maxAnimationSpeed)</pre>
             animationSpeed = maxAnimationSpeed;
      }
}
public int getCenterX()
      return centerX;
public void setCenterX(int centerX)
      this.centerX = centerX;
public int getCenterY()
      return centerY;
public void setCenterY(int centerY)
      this.centerY = centerY;
public int getSpeedX()
      return speedX;
public void setSpeedX(int speedX)
      this.speedX = speedX;
public int getWidth()
      return width;
public void setWidth(int width)
      this.width = width;
public int getHeight()
      return height;
}
```

```
public void setHeight(int height)
{
          this.height = height;
}
```