

PONG

for

**Android**

S



E



Port the retro feeling to  
new **gaming devices**



# Features

Single player mode

# Features

Single player mode

Local multiplayer

# Features

Single player mode

Local multiplayer

Remote multiplayer

# Requirements

Game model

# Requirements

Game model

Custom drawing



# Requirements

Game model

Custom drawing

Touch handling

# Requirements

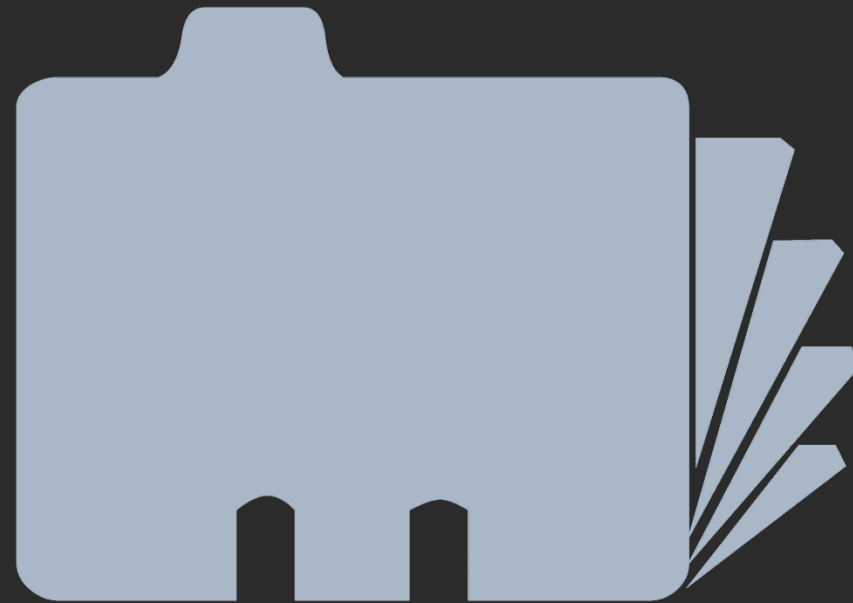
Game model

Custom drawing

Touch handling

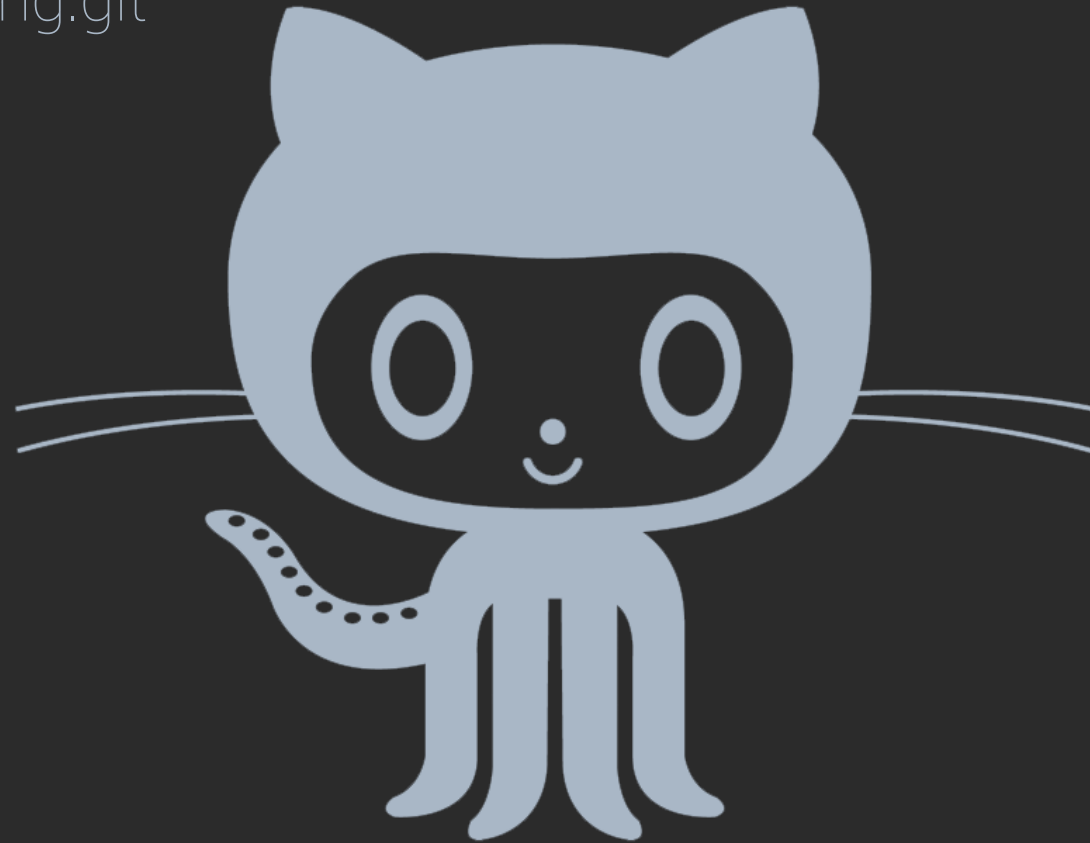
Network communication

# Project Setup



# GitHub

<https://github.com/vRallev/Pong.git>



Fork me on GitHub

# Dependencies

Android Support v4 Lib

Located in your Android SDK

Google GSON

<https://code.google.com/p/google-gson/>

Green Robot EventBus

<https://github.com/greenrobot/EventBus>

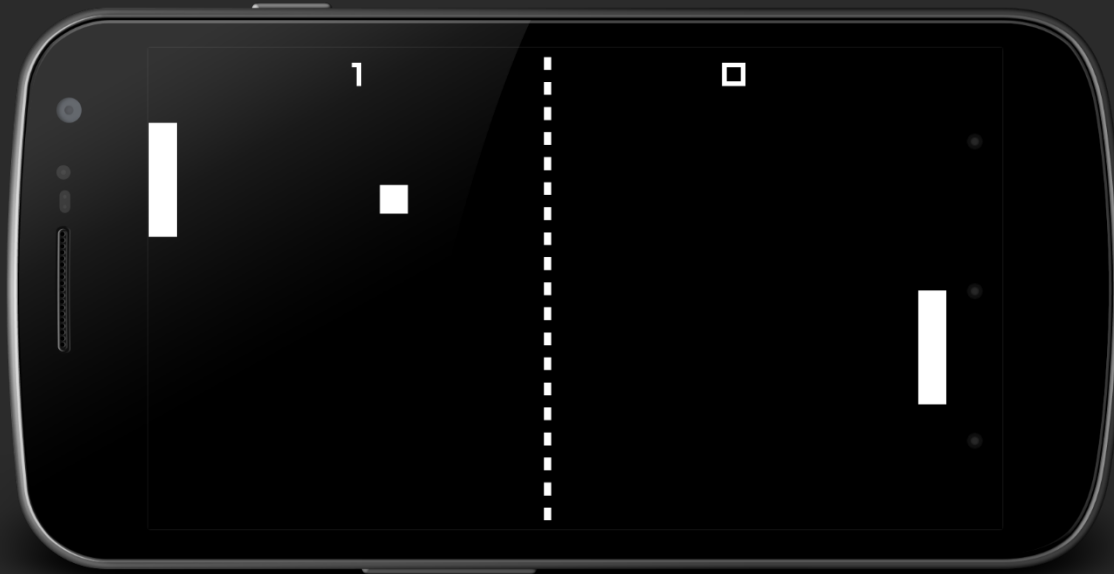
# Settings

```
<uses-sdk
```

```
    android:minSdkVersion="14"
```

```
    android:targetSdkVersion="17"/>
```

# Current State





Single player mode





Single player mode



Local multiplayer

**Demo**

# // **TODO: implement**

Single player mode

Local multiplayer

**Remote multiplayer**

# Remote multiplayer

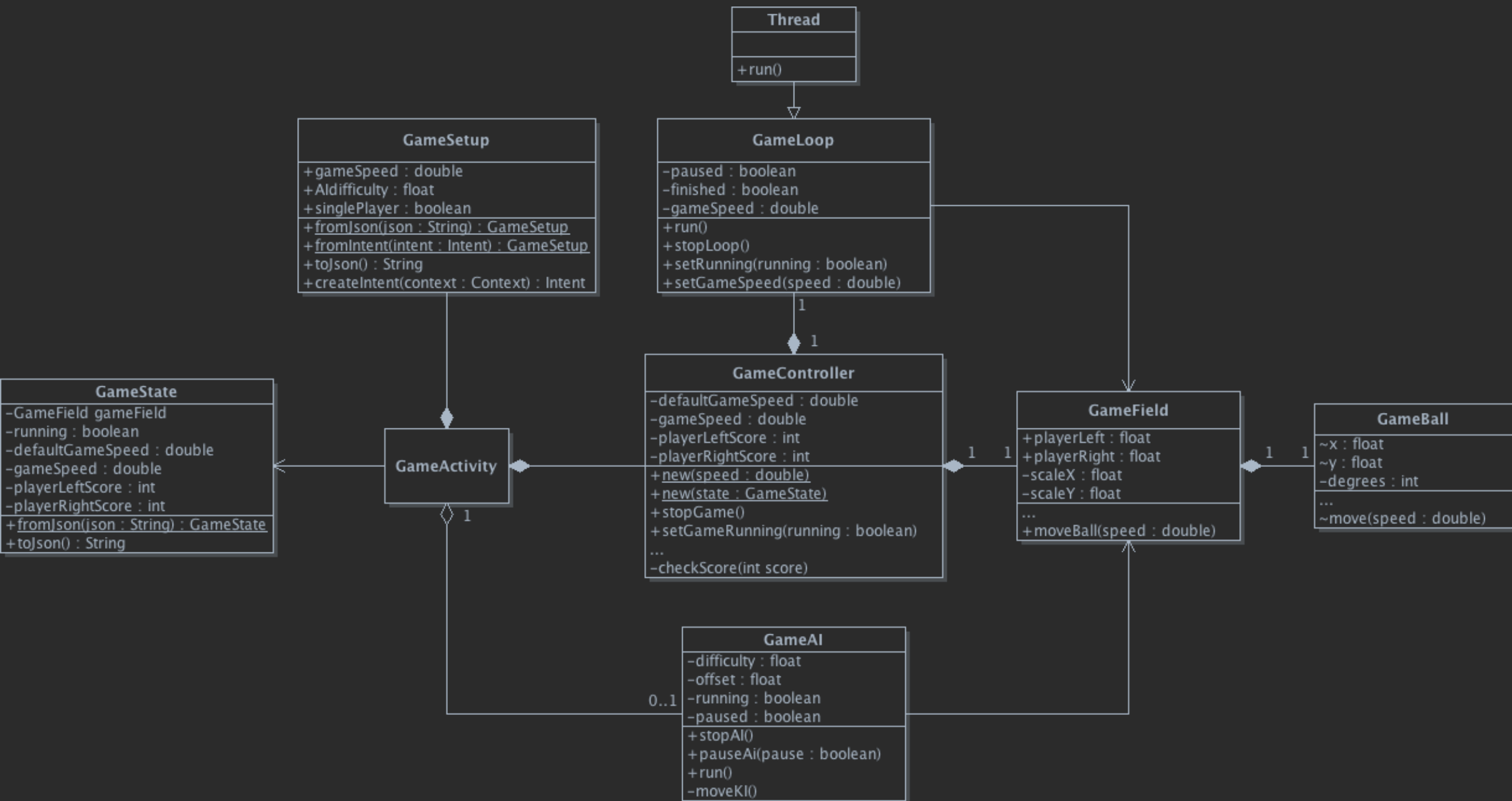
Bluetooth

WiFi Direct

TCP IP Socket

(Google Play game service)

```
public class ImplementationDetails {  
  
    // FIXME: not running snippets  
  
}
```



# Scaling



# Timing

```
/* package */ class GameLoop extends Thread {  
  
    private void innerRun() throws InterruptedException {  
        long moveControlTime = System.currentTimeMillis();  
  
        while (!mFinished) {  
            long currentTime = System.currentTimeMillis();  
  
            while (currentTime - moveControlTime > 0) {  
                moveControlTime++;  
                mGameField.moveBall(mGameSpeed);  
            }  
  
            Thread.sleep(5);  
        }  
    }  
}
```



# GSON instead of Parcelable

```
public class GameSetup {  
  
    public static GameSetup fromJson(String json) {  
        return new Gson().fromJson(json, GameSetup.class);  
    }  
  
    public static GameSetup fromIntent(Intent intent) {  
        return fromJson(intent.getStringExtra(GameActivity.GAME_SETUP));  
    }  
  
    public String toJson() {  
        return new Gson().toJson(this);  
    }  
  
    public Intent createIntent(Context context) {  
        Intent intent = new Intent(context, GameActivity.class);  
        intent.putExtra(GameActivity.GAME_SETUP, toJson());  
        return intent;  
    }  
}
```

# Custom Drawing

```
public class DrawingView extends View {  
  
    @Override  
    protected void onDraw(Canvas canvas) {  
        onDrawBall(canvas, mGameField.getBallX(), mGameField.getBallY());  
        onDrawMiddleLine(canvas);  
        onDrawPlayer(canvas, mBallWidth / 2, leftY);  
        onDrawPlayer(canvas, mWidth - mBallWidth / 2, rightY);  
  
        invalidate();  
    }  
}
```

**Thank you**

Ralf Wondratschek

Peter Grube