

# PlayN Game Loop

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```
public class AsteroidsGame extends Game.Default {  
    /* NOTE CODE HAS BEEN LEFT OUT FOR CLARITY */  
  
    public AsteroidsGame() {  
        super(33); // call update every 33ms (30 times per second)  
    }  
  
    @Override  
    public void init() {  
        // create a group layer to hold everything  
        layer = graphics().rootLayer();  
  
        // create and add background image layer  
        layer.add(graphics().createImmediateLayer(new StarRenderer(clock)));  
  
        // add Player  
        IEntity ship = new Ship();  
        gameListener.onCreate(new CreateEvent(this, ship));  
    }  
  
    @Override  
    public void update(int delta) {  
        clock.update(delta);  
  
        // Test for collision  
        for (int i = 0; i < entities.size(); i++) {  
            for (int j = i + 1; j < entities.size(); j++) {  
                // compare list.get(i) and list.get(j)  
                IEntity entity = entities.get(i);  
                IEntity target = entities.get(j);  
                if (target != null && testCollision(entity, target)) {  
                    target.health().hit(entity, 1);  
                    entity.health().hit(target, 1);  
                }  
            }  
        }  
  
        for (IEntity e : new ArrayList<IEntity>(entities)) {  
            e.onUpdate(new UpdateEvent(delta));  
        }  
    }  
  
    @Override  
    public void paint(float alpha) {  
        clock.paint(alpha);  
  
        for (IEntity e : entities) {  
            e.onRender(new RenderEvent(alpha));  
        }  
    }  
}
```

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