# From 'Java Sucks' to 'Java…Eh, Not Bad'

## How Vert.x & Java 21 Made Me Stop Complaining

Thomas Gebert

# Who Am I?

- Software Engineer in New York City.

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- Software Engineer in New York City.
- There is nothing else interesting about me.

Java.

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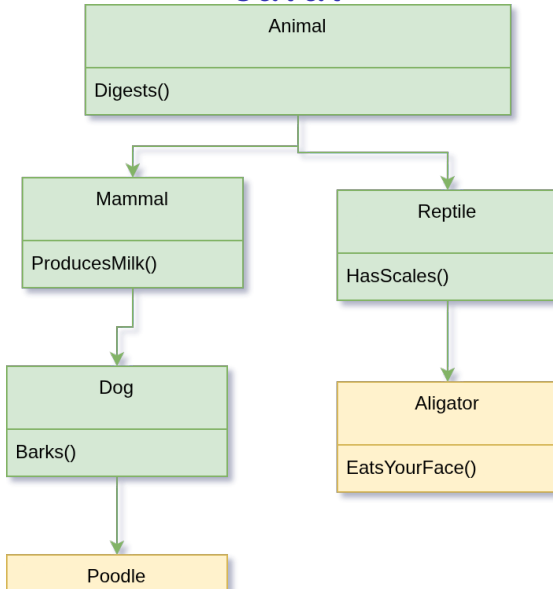# Examples of (Historically) Bad Things In Java.

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- Many of us are stuck in this hell.

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for (String word : words) {
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```java
long count = words.stream()
                  .filter(w -> w.length() > 10)
                  .count();

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```java
void doSomethingAsync(Promise<String> promise) {
  vertx.setTimer(500, id -> {
    promise.complete("Hello, future!");
  });
}
```

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- Data is paused/resumed automatically when the `receiver` can't keep up

- Useful when handling large streams (e.g., file uploads, HTTP bodies)

# Backpressure in Vert.x

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Example: Handling a slow `WriteStream`

```java
source.pipeTo(slowSink, res -> {
  if (res.succeeded()) {
    System.out.println("All data written.");
  } else {
    res.cause().printStackTrace();
  }
});
```

# Vert.x distributed concurrency example

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Deploying Verticles: Local vs Clustered

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## Deploying Verticles: Local vs Clustered

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public class MyVerticle extends AbstractVerticle {

  @Override
  public void start(Promise<Void> startPromise) {
    System.out.println("Verticle started on thread: " + Thr

    vertx.setTimer(1000, id -> {
      System.out.println("Timer fired after 1 second");
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    startPromise.complete();
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## Local Deployment

```
Vertx vertx = Vertx.vertx();
vertx.deployVerticle(new MyVerticle());
```

# Vert.x Concurrency Example.

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Distributed Deployment

# Vert.x Concurrency Example.

## Distributed Deployment

```
Vertx.clusteredVertx(new VertxOptions(), res -> {
  if (res.succeeded()) {
    Vertx vertx = res.result();
    vertx.deployVerticle(new MyVerticle());
  } else {
    res.cause().printStackTrace();
  }
});
```

# Conclusion.

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- Java 21 isn't that bad.

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- Java 21 isn't that bad.
- Convince your employers to upgrade if you want to reclaim your sanity.
- Blah . . .
- Use libraries like Vert.x and Disruptor to make life simpler.

# Conclusion.

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- blog.tombert.com



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