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Developer Observability

Developer Observability

The Forth Pillar

Shai Almog

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```
Speaker ShaiAlmog = Speaker.builder()
    .withProfessionalExperience(30, TimeUnit.YEARS)
    .withTopCompanies("Sun", "Oracle", "Codename One", "Lightrun")
    .withBlog("debugagent.com")
    .withYouTube("youtube.com/@debugagent")
    .withMastodon("@debugagent@mastodon.social")
    .withGitHub("github.com/shai-almog")
    .withLinkedIn("linkedin.com/in/shai-almog-81a42/")
    .withTwitter("twitter.com/debugagent").withDms(OPEN)
    .build();
```



Practical Debugging at Scale

Cloud Native Debugging in Kubernetes
and Production

—
Shai Almog

Apress®

#1 New Release

amazon.com/dp/1484290410/



debugagent.com



github.com/shai-almog



@debugagent@mastodon.social



youtube.com/@debugagent



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3 Pillars

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Logs

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Traces

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Metrics

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They are Fantastic

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They are Static

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Add a: Log/Metric/Span

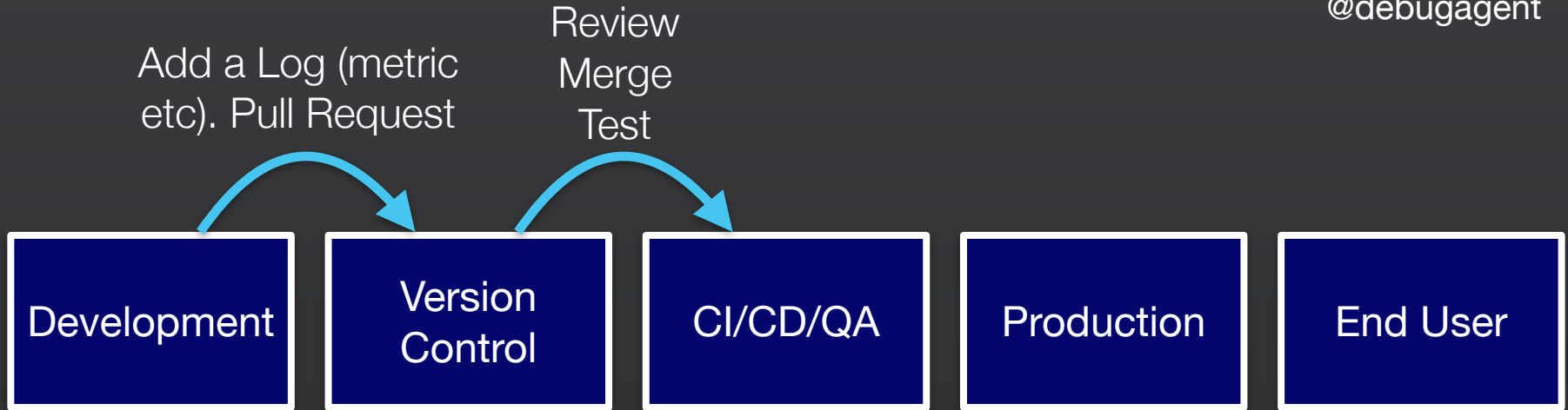
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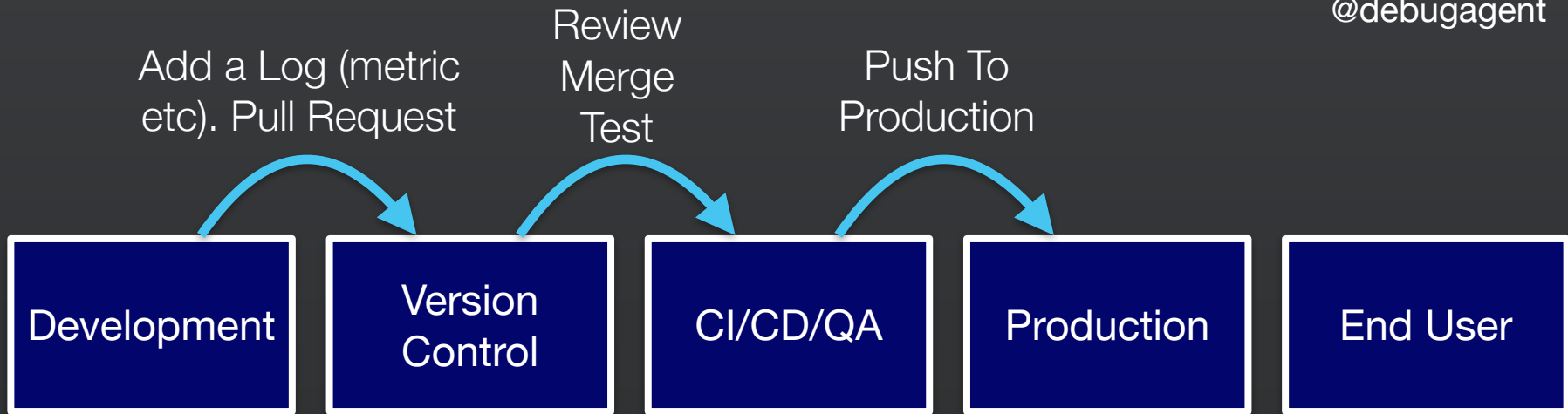
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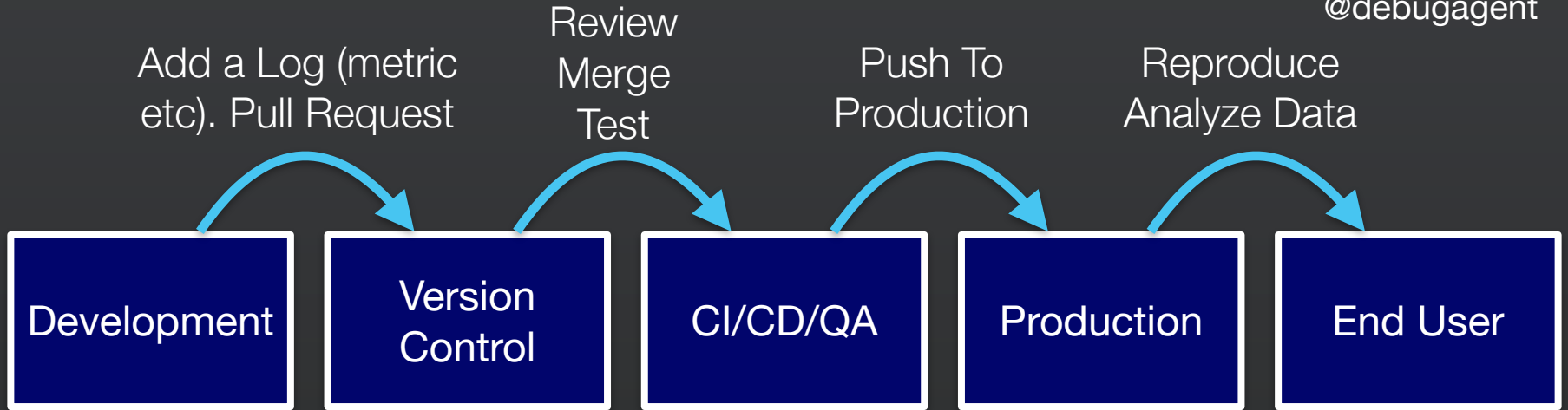


Add a Log (metric
etc). Pull Request

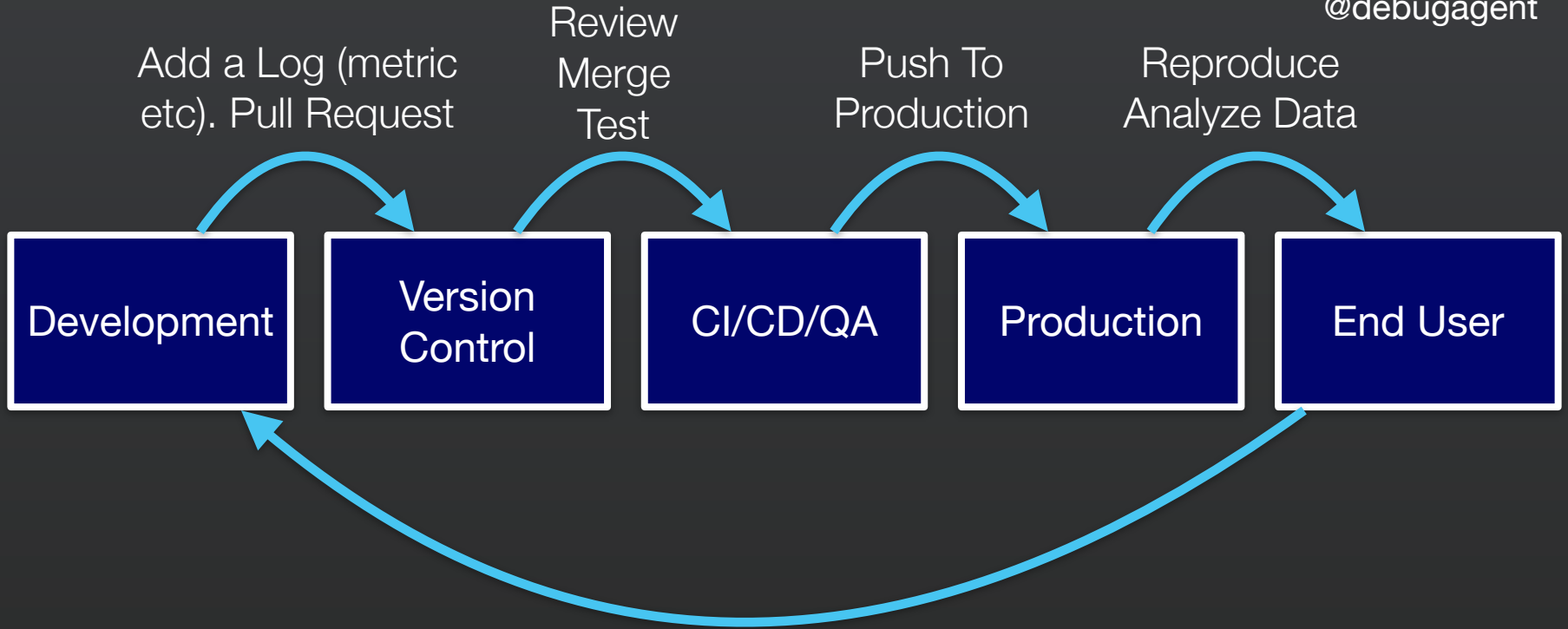








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CI/CD Cycle of Death...

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There are Other Problems

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Over Observing...

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Logging = 1/3rd Cloud Costs

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engineerL · 24 days ago

A team at my company accidentally blew ~100k on Azure Log Analytics during the span of a few days. They set the logging verbosity to a hitherto untested level and threw in some extra replicas as well. When they announced their mistake on Slack, I learned that yes, there is such a thing as too much logging.



51



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<https://www.reddit.com/r/devops/comments/udgohy/comment/i6i3oyo>

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It Doesn't Help

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Focused on DevOps

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Microservices & Serverless

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Solution: Developer Observability

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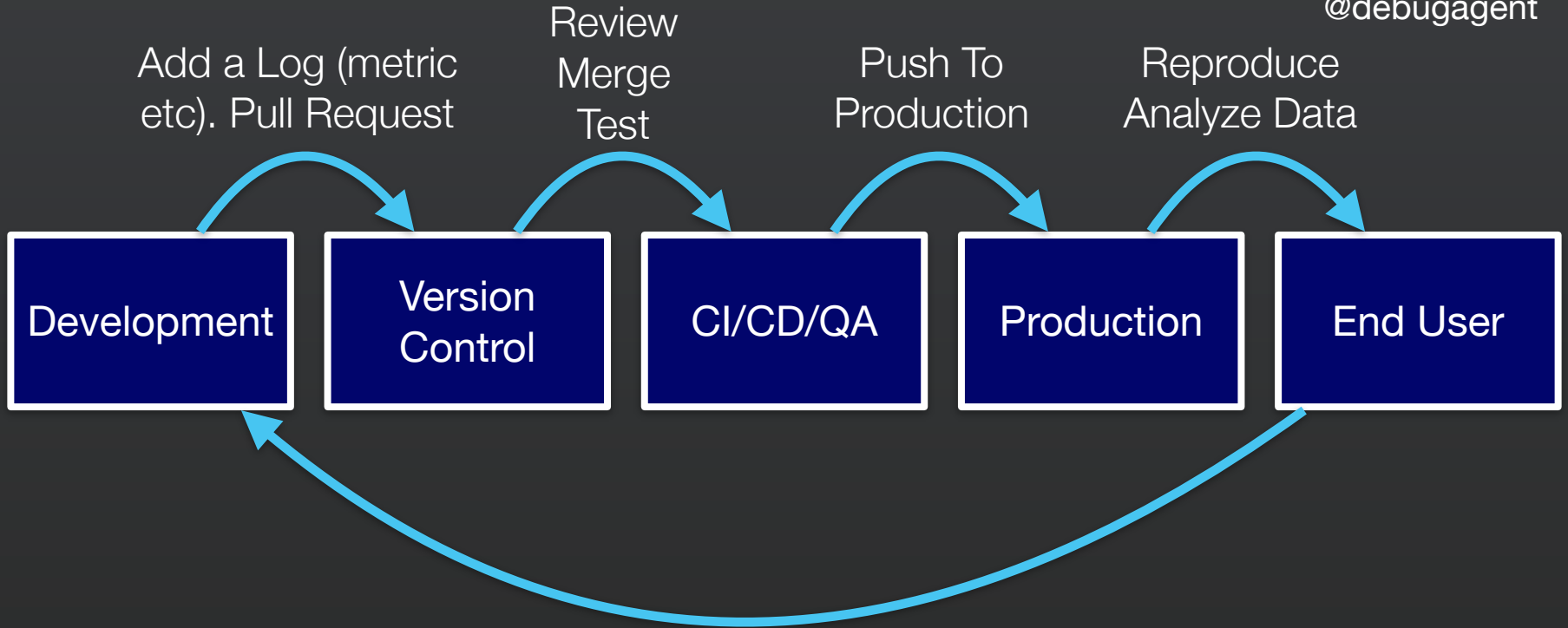
Works in IDE

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Inject: Logs, Metrics, Snapshots

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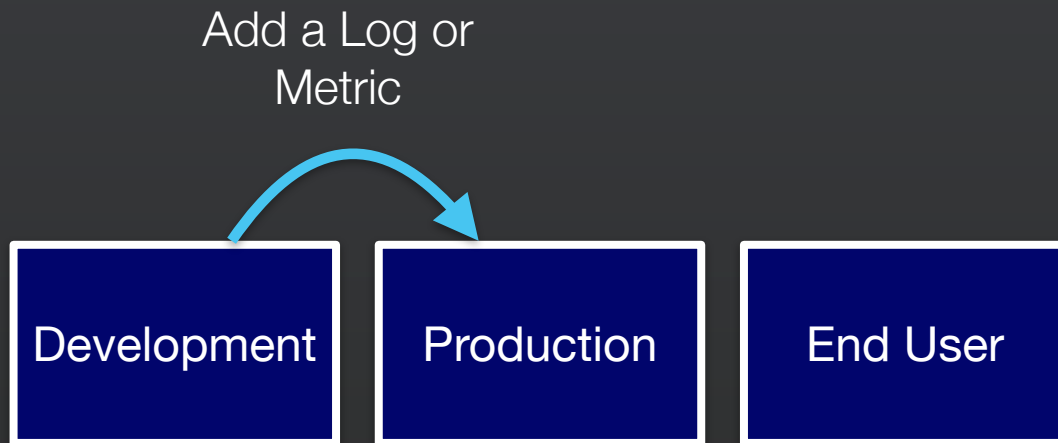
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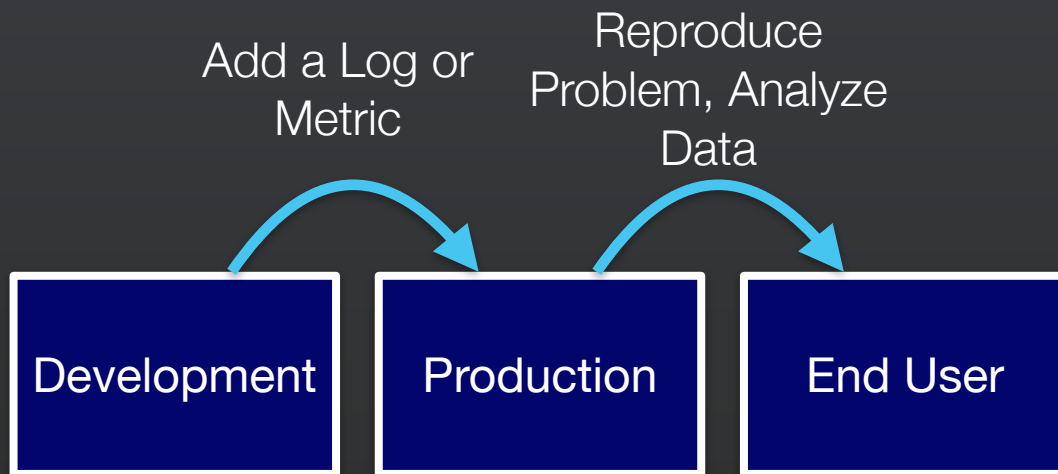
Development

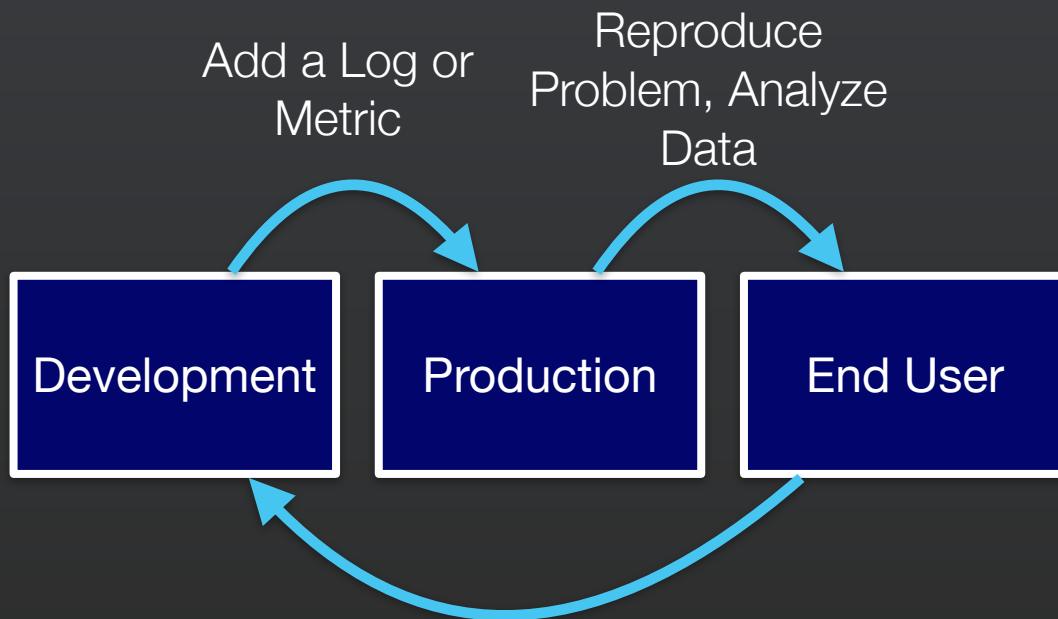
Production

End User

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Injecting???

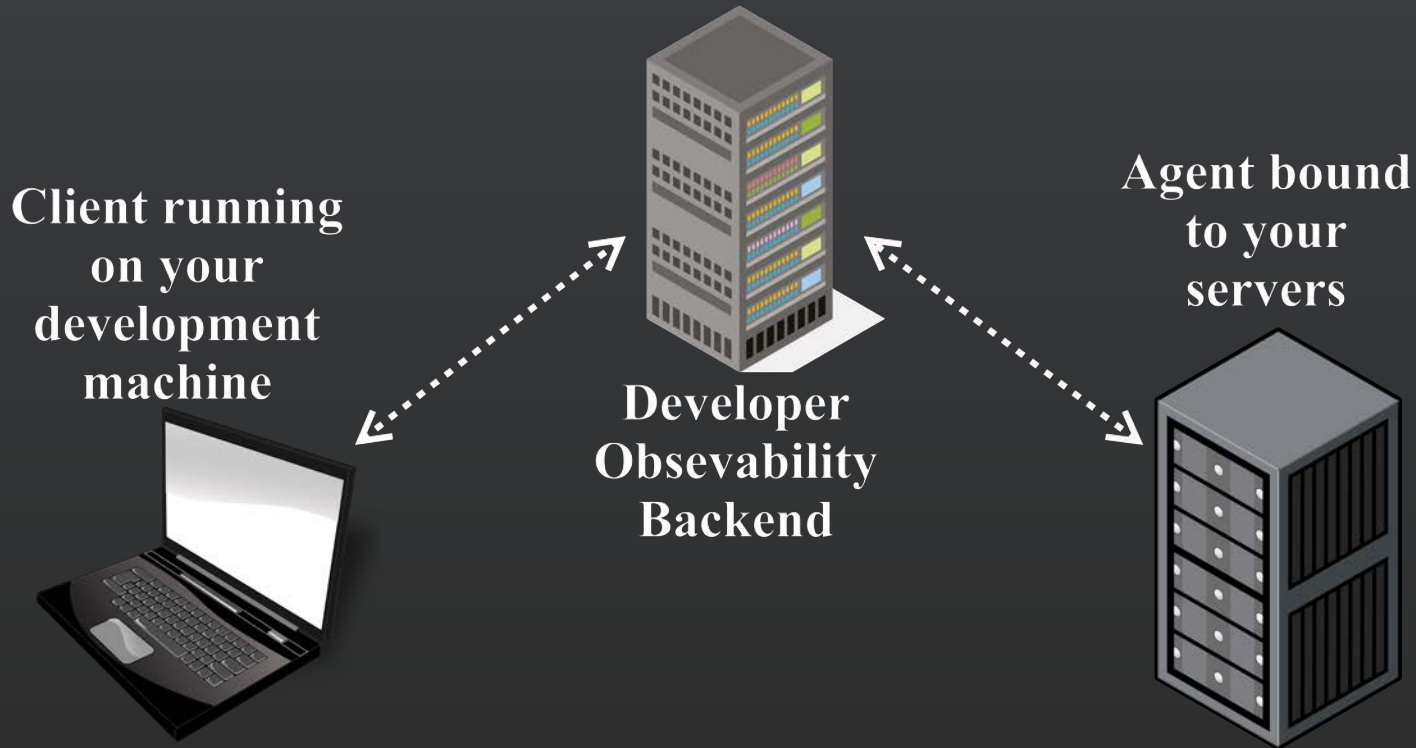
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Security...

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Sandbox

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Admin Logs

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PII Reduction

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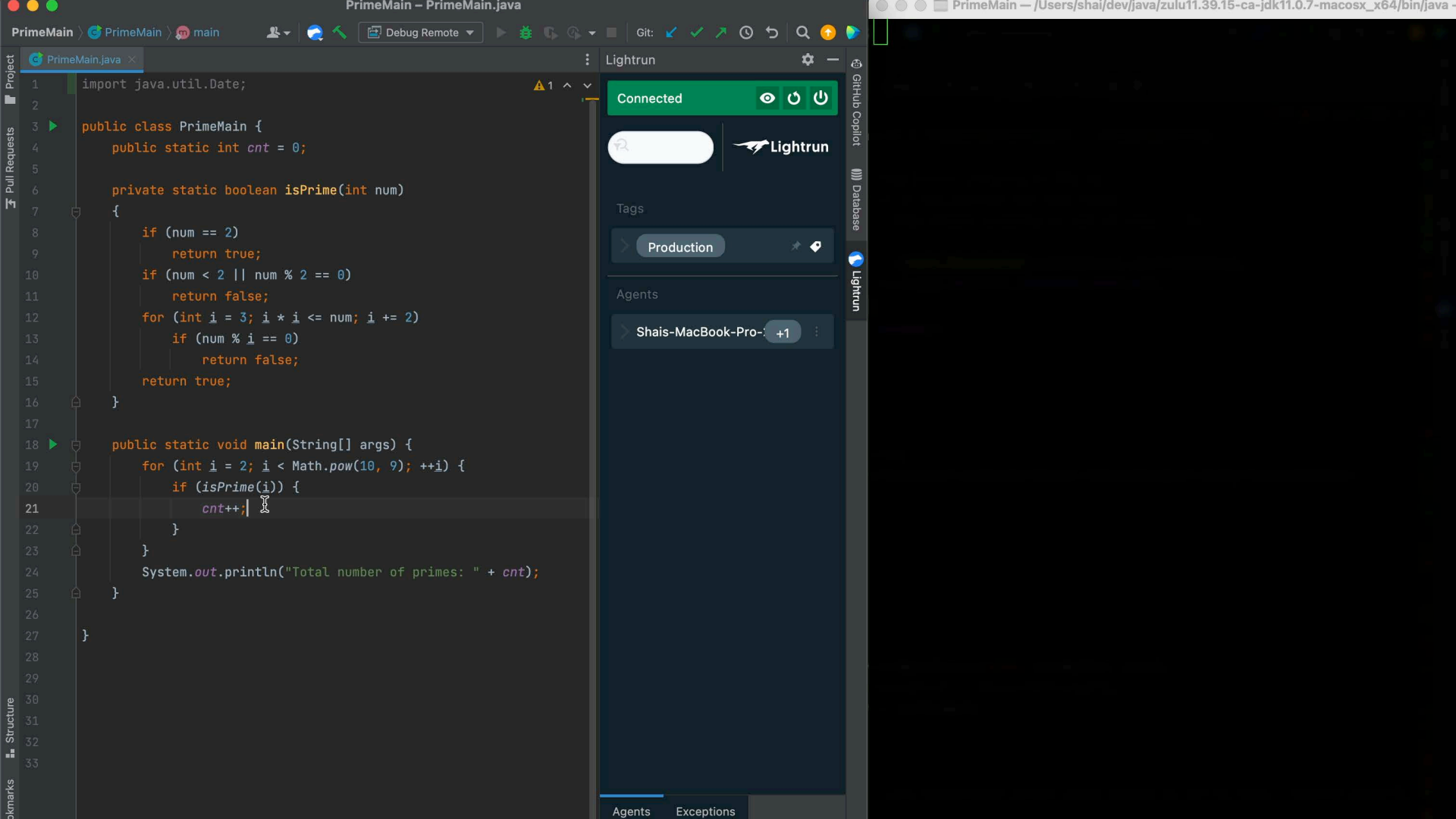
Block Lists

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Demo

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Connected



Tags

> **Production** ✨ 📍

Agents

> **Shais-MacBook-Pro-** +1 ⋮

GitHub Copilot

Database

Lightrun

Connected



Tags

> **Production** ⚡ 📍

Agents

> **Shais-MacBook-Pro-** +1 ⋮

GitHub Copilot

Database

Lightrun

```
public class PrimeMain {
    public static int cnt = 0;

    private static boolean isPrime(int num)
    {
        if (num == 2)
            return true;
        if (num < 2 || num % 2 == 0)
            return false;
        for (int i = 3; i * i <= num; i += 2)
            if (num % i == 0)
                return false;
        return true;
    }

    public static void main(String[] args) {
        for (int i = 2; i < Math.pow(10, 9); ++i) {
            if (isPrime(i)) {
                cnt++;
            }
        }
        System.out.println("Total number of primes: " + cnt);
    }
}
```



Copilot Database Lightrun

Tags

Production

Agents

Shais-MacBook-Pro- +1

Agents Exceptions

```
public class PrimeMain {
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Copilot Database Lightrun

Tags

Production

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Agents Exceptions

```
INFO: LOGPOINT: The value of i is 298611
cnt is 16181220
May 15, 2022 1:36:18 PM PrimeMain main
INFO: LOGPOINT: The value of i is 298611
cnt is 16181221
May 15, 2022 1:36:18 PM PrimeMain main
INFO: LOGPOINT: The value of i is 298611
cnt is 16181222
May 15, 2022 1:36:18 PM PrimeMain main
INFO: LOGPOINT: The value of i is 298611
cnt is 16181223
May 15, 2022 1:36:18 PM PrimeMain main
INFO: LOGPOINT: breakpointId: [be8431bd-
0-83fd-0b0745a6dc68]: Logpoint is paused
high call rate until log quota is restor
```

ons

v plugin version

!


```
INFO: LOGPOINT: The value of i is 298611  
cnt is 16181220
```

```
May 15, 2022 1:36:18 PM PrimeMain main
```

```
INFO: LOGPOINT: The value of i is 298611  
cnt is 16181221
```

```
May 15, 2022 1:36:18 PM PrimeMain main
```

```
INFO: LOGPOINT: The value of i is 298611  
cnt is 16181222
```

```
May 15, 2022 1:36:18 PM PrimeMain main
```

```
INFO: LOGPOINT: The value of i is 298611  
cnt is 16181223
```

```
May 15, 2022 1:36:18 PM PrimeMain main
```

```
INFO: LOGPOINT: breakpointId: [be8431bd-  
0-83fd-0b0745a6dc68]: Logpoint is paused  
high call rate until log quota is restor
```

ons

v plugin version

!

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Ephemeral

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Insight

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Summary

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Cloud Native Debugging in Kubernetes
and Production

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Thank You



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