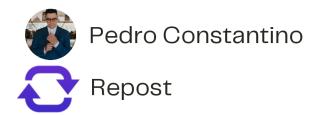




Stop Debugging Blindly: Add Observability to Your .NET App





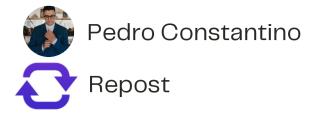


What is Observability?

Observability is the ability to understand the internal state of a system based on the data it generates, such as logs, metrics, and traces. In simple terms, it's about gaining deep insights into your application's behavior and performance, which helps you detect and troubleshoot issues quickly.

It encompasses three key pillars:

- **Logs:** Detailed, time-stamped records of events that happen within your system. Logs provide insights into what's happening at any given moment and are often the first place developers look to diagnose problems.
- **Metrics:** Quantitative measurements that track system performance and health. Metrics can include response times, request rates, and resource usage, helping you monitor the overall health of your application in real time.
- **Traces:** Distributed traces track the journey of a request across various services or components of your application, providing a visual representation of how your system components interact.



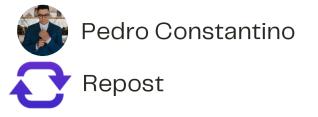




Implementing OpenTelemetry in Your .NET Application

```
• • •
builder.Services.AddOpenTelemetry()
        .ConfigureResource(resource ⇒ resource.AddService("Notes"))
        .WithMetrics(metrics ⇒
            metrics
                .AddAspNetCoreInstrumentation()
                                                                         Metrics
                .AddHttpClientInstrumentation();
            metrics.AddOtlpExporter();
        })
        .WithTracing(tracing ⇒
            tracing
                .AddAspNetCoreInstrumentation()
                .AddHttpClientInstrumentation()
                                                                         Tracing
                .AddEntityFrameworkCoreInstrumentation();
            tracing.AddOtlpExporter();
        });
Logs
builder.Logging.AddOpenTelemetry(logging ⇒ logging.AddOtlpExporter());
```

This setup ensures that all three pillars of observability, logs, metrics, and traces, are in place and ready to be sent to your preferred backend for analysis.







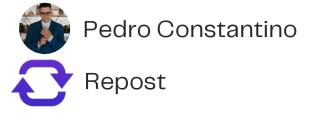
Configure Serilog

```
"Using": [ "Serilog.Sinks.Console", "Serilog.Sinks.PostgreSQL", "Serilog.Sinks.OpenTelemetry." ],

{
    "Name": "OpenTelemetry",
    "Args": {
        "endpoint": "http://notes.dashboard:18889"
    }
}
```

To enable Serilog to send logs via OpenTelemetry, you must add the OpenTelemetry sink with the collector's endpoint.

Also, ensure the "Using" section includes "Serilog.Sinks.OpenTelemetry" along with other sinks.





Thanks for your attention.

Let's connect and spread knowledge together.





