Sentry Deployment and Source Mapping Integration

Sentry is used for monitoring and error tracking in applications. Here's how you can deploy and integrate it with source mapping in your environment.

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1. Deploying Sentry

Using Docker

If you want to deploy Sentry locally using Docker, you can use the official self-hosted repository:

bash

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git clone https://github.com/getsentry/self-hosted.git

cd self-hosted

./install.sh

docker-compose up -d

This sets up Sentry with a PostgreSQL database, Redis, and Kafka.

Using Helm (Kubernetes)

If you prefer to deploy Sentry in Kubernetes using Helm:

bash

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helm repo add sentry https://sentry-kubernetes-charts.storage.googleapis.com/

helm repo update

helm install my-sentry sentry/sentry

This will deploy Sentry with all required dependencies in a Kubernetes cluster.

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2. Integrating Source Maps for JavaScript Applications

To properly track and debug JavaScript errors, you need to upload source maps. Here's how:

Generating Source Maps

When bundling your JavaScript application (React, Vue, Angular, etc.), make sure source maps are enabled. For example, in Webpack:

js

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```
module.exports = {
  devtool: 'source-map',
};
```

This generates .map files that can be uploaded to Sentry.

Uploading Source Maps to Sentry

Use the Sentry CLI to upload source maps:

bash

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```
export SENTRY_AUTH_TOKEN=<your_sentry_auth_token>
export SENTRY_ORG=<your_sentry_org>
export SENTRY_PROJECT=<your_sentry_project>

sentry-cli releases new v1.0.0
sentry-cli releases files v1.0.0 upload-sourcemaps ./dist --rewrite
sentry-cli releases finalize v1.0.0
```

This will associate the source maps with the correct release.

Configuring Sentry in JavaScript

Modify your application's Sentry configuration:

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```
import * as Sentry from "@sentry/react";

Sentry.init({
```

```
  dsn: "https://your_dsn@sentry.io/your_project_id",
  release: "v1.0.0",
  integrations: [new Sentry.BrowserTracing()],
  tracesSampleRate: 1.0,
});
```

Now, errors reported to Sentry will be mapped back to their original source code.

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3. Additional Enhancements and Configurations

- **Performance Monitoring: Enable tracing with tracesSampleRate: 1.0.**
- **Custom Logging: Add custom error handlers to log warnings before they reach Sentry.**
- **Alerts & Notifications: Integrate with Slack, PagerDuty, or email for real-time alerts.**