+++ title = "Build a plugin" aliases = ["/docs/grafana/latest/plugins/developing/"] +++

Build a plugin

For more information on the types of plugins you can build, refer to the [Plugin Overview]({{< relref "../../plugins/_index.md" >}}).

Get started

The easiest way to start developing Grafana plugins is to use the Grafana Toolkit.

Open the terminal, and run the following command in your [plugin directory]({{< relref "../../administration/configuration.md#plugins" >}}):

```
npx @grafana/toolkit plugin:create my-grafana-plugin
```

> **Note:** If running NPM 7+ the `npx` commands mentioned in this article may hang. The workaround is to use `npx --legacy-peer-deps <command to run>`.

If you want a more guided introduction to plugin development, check out our tutorials:

- [Build a panel plugin]({{< relref "/tutorials/build-a-panel-plugin.md" >}})
- [Build a data source plugin]({{< relref "/tutorials/build-a-data-source-plugin.md" >}})

Go further

Learn more about specific areas of plugin development.

Tutorials

If you're looking to build your first plugin, check out these introductory tutorials:

- [Build a panel plugin]({{< relref "/tutorials/build-a-panel-plugin.md" >}})
- [Build a data source plugin]({{< relref "/tutorials/build-a-data-source-plugin.md" >}})
- [Build a data source backend plugin]({{< relref "/tutorials/build-a-data-source-backend-plugin.md" >}})

Ready to learn more? Check out our other tutorials:

- [Build a panel plugin with D3.js]({{< relref "/tutorials/build-a-panel-plugin-with-d3.md" >}})

Guides

Improve an existing plugin with one of our guides:

- [Add authentication for data source plugins]({{< relref "add-authentication-for-data-source-plugins" >}})
- [Add support for annotations]({{< relref "add-support-for-annotations.md" >}})
- [Add support for Explore queries]({{< relref "add-support-for-explore-queries.md" >}})
- [Add support for variables]({{< relref "add-support-for-variables.md" >}})
- [Add a query editor help component]({{< relref "add-query-editor-help.md" >}})
- [Build a logs data source plugin]({{< relref "build-a-logs-data-source-plugin.md" >}})
- [Build a streaming data source plugin]({{< relref "build-a-streaming-data-source-plugin.md" >}})
- [Error handling]({{< relref "error-handling.md" >}})
- [Working with data frames]({{< relref "working-with-data-frames.md" >}})
- [Development with local Grafana]({{< relref "development-with-local-grafana.md" >}})

Concepts

Deepen your knowledge through a series of high-level overviews of plugin concepts:

- [Data frames]({{< relref "data-frames.md" >}})

UI library

Explore the many UI components in our Grafana UI library.

Examples

For inspiration, check out our plugin examples.

API reference

Learn more about Grafana options and packages.

Metadata

- [Plugin metadata]({{< relref "metadata.md" >}})

Typescript

- Grafana Data
- Grafana Runtime

- Grafana UI

Go

- [Grafana Plugin SDK for Go]({{< relref "backend/grafana-plugin-sdk-for-go" >}})