

HANDOUT

How to build an App for the Spryker App Composition Platform with our SDK



Spryker

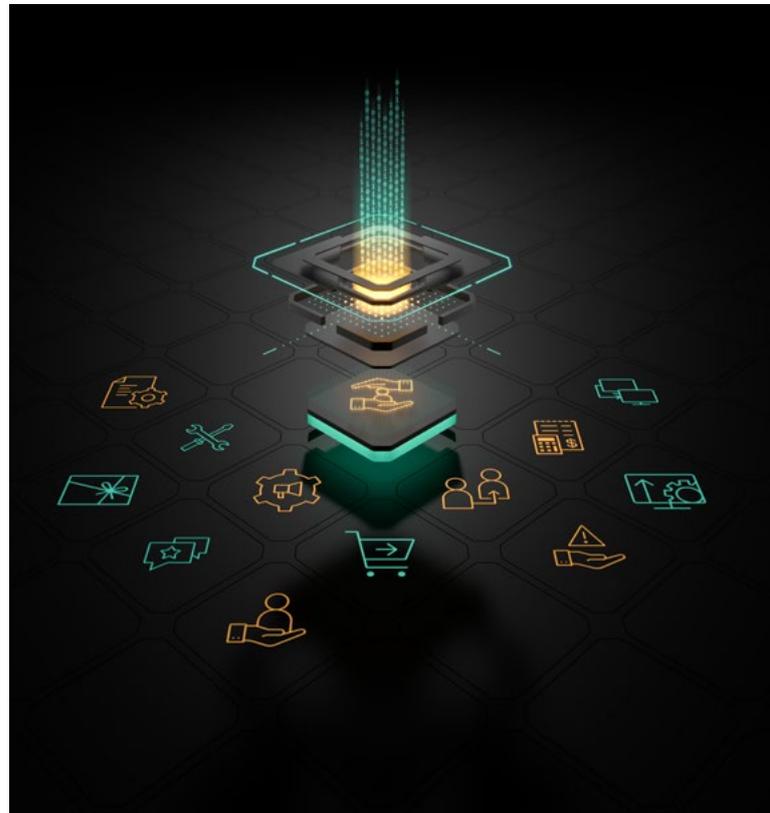


The **Spryker Software Development Kit (SDK)** allows third-party developers to easily build apps and integrations for the Spryker App Composition Platform. This includes independent developers, agencies, existing and prospective tech partners, and even Spryker customers.

How does it work?

Developers now have access to a tool that guides them through the app creation process step-by-step:

- The app's **“boilerplate” code** is built automatically for you, so that you can focus on the unique business logic of your particular app or integration.
- The ACP SDK will help you create the **configuration files** that you will need.
- The **boilerplate API endpoints** are inserted, which can be simply replaced with the real endpoints when developers are ready.
- Our code generators will load **schema files** and create code and tests as appropriate.
- The ACP SDK will help **run the app locally** and test it extensively.
- Once tested the app can be submitted to the app store.



Our step-by-step manual for you to follow:

Initial Thought

The development process should start with asking:

- What should the app be capable of?
- What features will it bring?
- What data will be exchanged?

These points should be considered not only in relation to yourself but also those interested in your **app functionality**. For example, what messages could be of interest to others, and what API endpoints you should provide.

Prerequisites

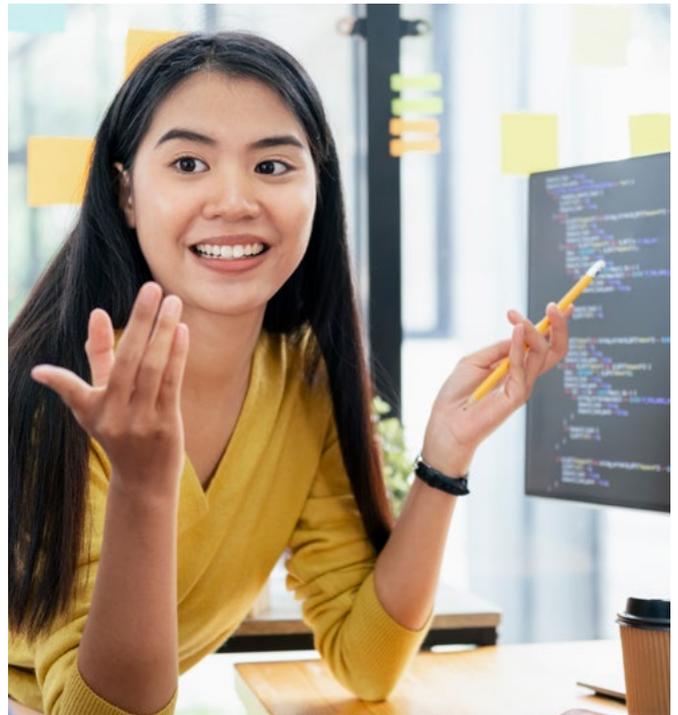
- You have installed the [Spryker SDK](#).
- You have an empty GitHub repository.
- You have a local project directory where you want to work. For example: ``/www/my-app``.

API-first

It's strongly recommended that apps follow the **API-first approach**. API-first means that your app is centered on the API. It should be possible to perform every action via the scripting language, and every piece of functionality should be available for other systems to leverage.

Schema-first

Before you start with the development, you should design your API schema files first. Depending on your requirements, you can have an **OpenAPI** or an **Async API** schema file. In this step, you define the **Sync API** endpoints your app will provide to others, the messages you will emit or consume, and the data you expect to work with.



Setting up the SDK

After you have installed the Spryker SDK, you can run the following commands to start building the app.

1. Ensure that you are in the correct working directory:

```
cd /www/my-app (The local project directory you created before)
```

2. Initialize the project:

```
spryker-sdk sdk:init:project --workflow=app
```

3. Run the workflow:

```
spryker-sdk sdk:workflow:run
```

Starting from **SprykerSDK version 0.3.0**, you can use the following set of commands:

```
cd /www/my-app (The local project directory you created before)
```

```
spryker-sdk sdk:workflow:run # and select the app workflow
```

The workflow guides you as much as possible through the process of building an app. Whenever something needs manual interaction, the workflow stops with a message on what you need to do.

After you complete the manual step, re-run the workflow with the spryker-sdk `sdk:workflow:run` command. This continues the previously paused workflow.

The Detailed Workflow for building an App with the Spryker SDK

The `spryker-sdk sdk:workflow:run` command guides you through the whole process of building an app.

This command does the following:

1. Downloads the boilerplate code and adds app definition files

One of the first steps of the workflow is downloading a reduced Spryker project into the working directory. It already contains a lot of code that lets you start implementing your business logic. This step can take a few minutes to complete.

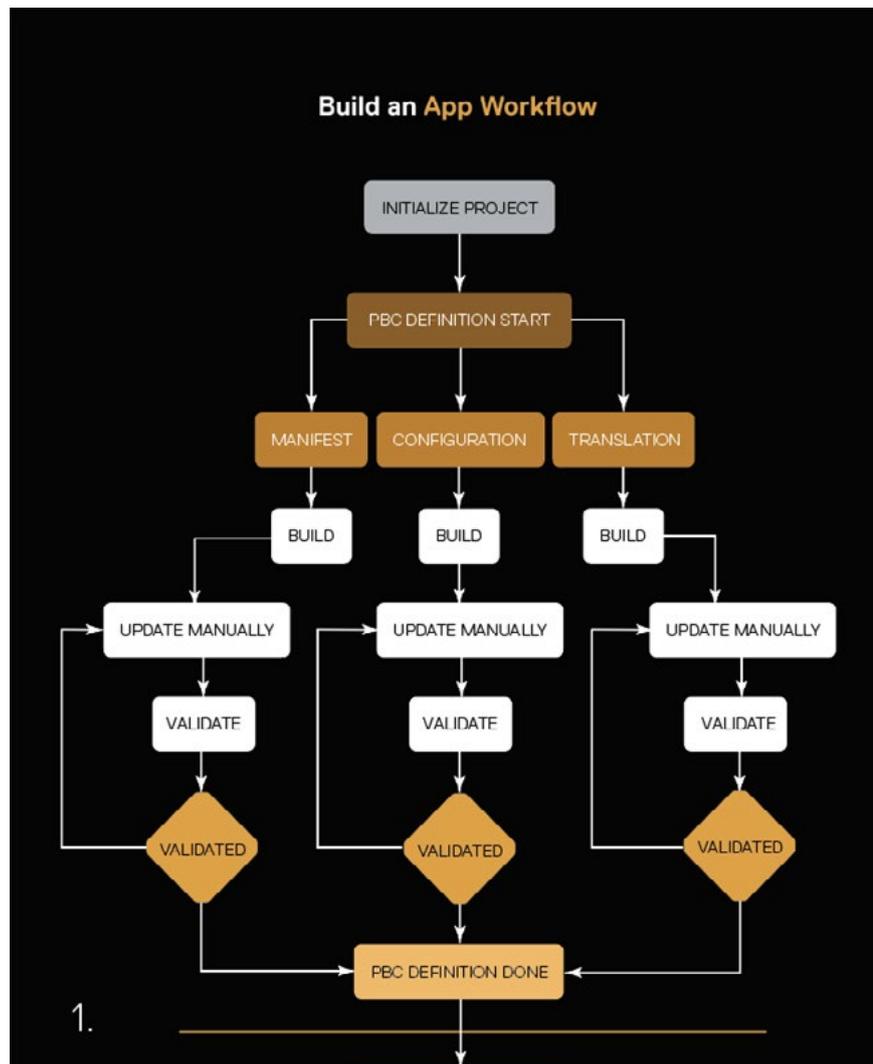
There are a couple of files that an app must have. The workflow guides you through creating them:

Manifest files

The manifest files define the details like title, category, and description of the app. The manifest files are also used to display information about the app on the App Catalog Page and the App Detail Page in the Back office.

Configuration file

The configuration file defines the form that is displayed in the Back Office App Catalog after the App was connected and needed some configuration.



Translation file

The translation file contains the keys and the translation values for each locale in which the app should be displayed.



2. Creates app API

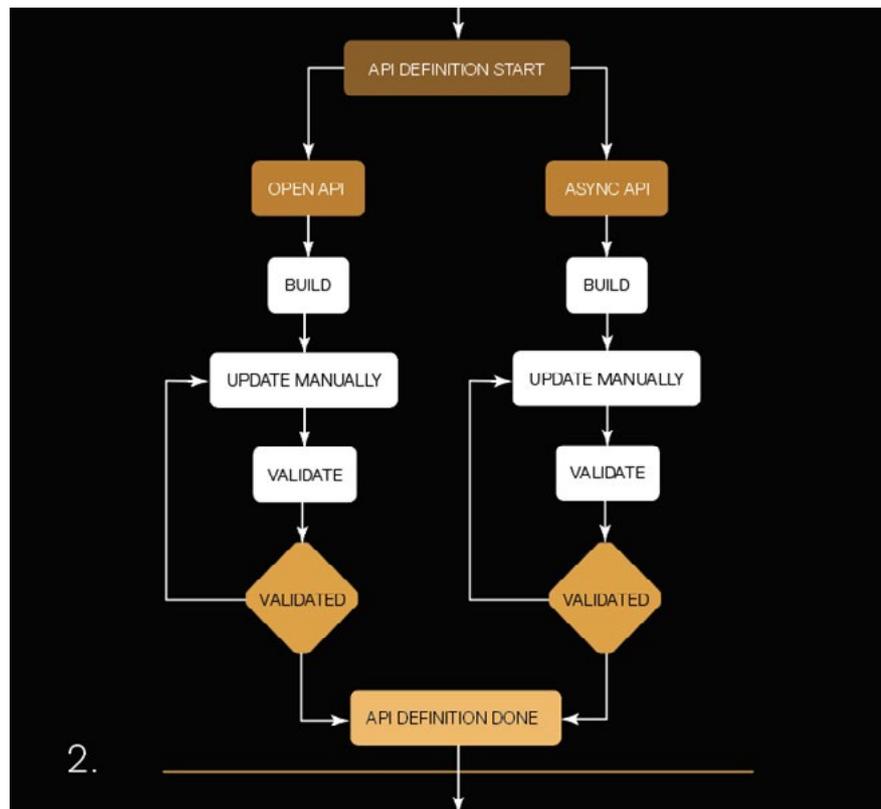
The command defines Sync API and Async API.

Sync API

The Sync API defines the app's synchronous endpoints, or **Glue** endpoints. The workflow creates a boilerplate that you need to update with the required endpoints your app should have.

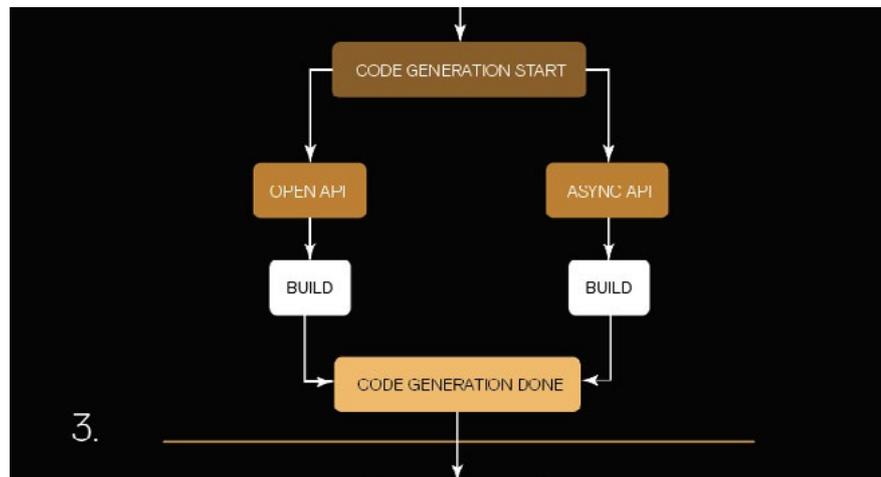
Async API

The Async API defines the app's asynchronous endpoints, also known as events and messaging. The workflow creates a boilerplate one that you need to update with the required endpoints your app should have.



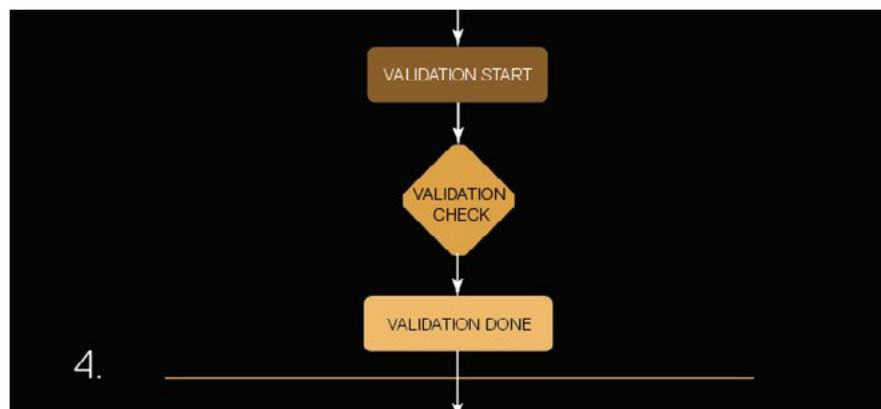
3. Runs code generators

After the previous steps were executed and you updated the API schema files to your needs, the code generators are executed. The code generators load the schema files and create as much code, including tests, as possible.



4. Performs validation

The workflow executes some validations during the process. The workflow stops when some validations fail and displays a message that helps you to fix the issues.





About Spryker

Spryker Systems GmbH is a privately held technology company headquartered in Berlin, Germany and New York, USA. Founded in 2014, Spryker enables companies to build sophisticated transactional business models in unified commerce including B2B, B2C, and Enterprise Marketplaces. Spryker is the most modern, fully composable platform-as-a-service (PaaS) solution with headless & API-based architecture that is cloud and enterprise-ready and loved by developers and business users worldwide. Spryker customers extend their sales reach and grow revenue with a system that allows them to increase operational efficiency, lower the total cost of ownership, expand to new markets and business models faster than ever before: Spryker solutions have empowered 150+ companies to manage transactions in more than 200 countries worldwide and is trusted by brands such as Aldi, Siemens, Hilti, and Ricoh. Gartner® recognized Spryker as a Visionary in the 2021 Magic Quadrant™ for Digital Commerce, just one year after it first appeared (2020), and has also been named as a major player in B2B e-Commerce by IDC. Finally, it is the only commerce platform to provide full B2B, B2C, D2C, and Marketplace capabilities out of one stack. Find out more at spryker.com



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