

## Browse the Book

*In this chapter, you'll learn about prepackaged integration content in SAP Business Hub. You'll walk step-by-step through discovering, testing, and consuming APIs and integration packs to build applications, extensions, or integrations.*



**"Prepackaged Integrations"**



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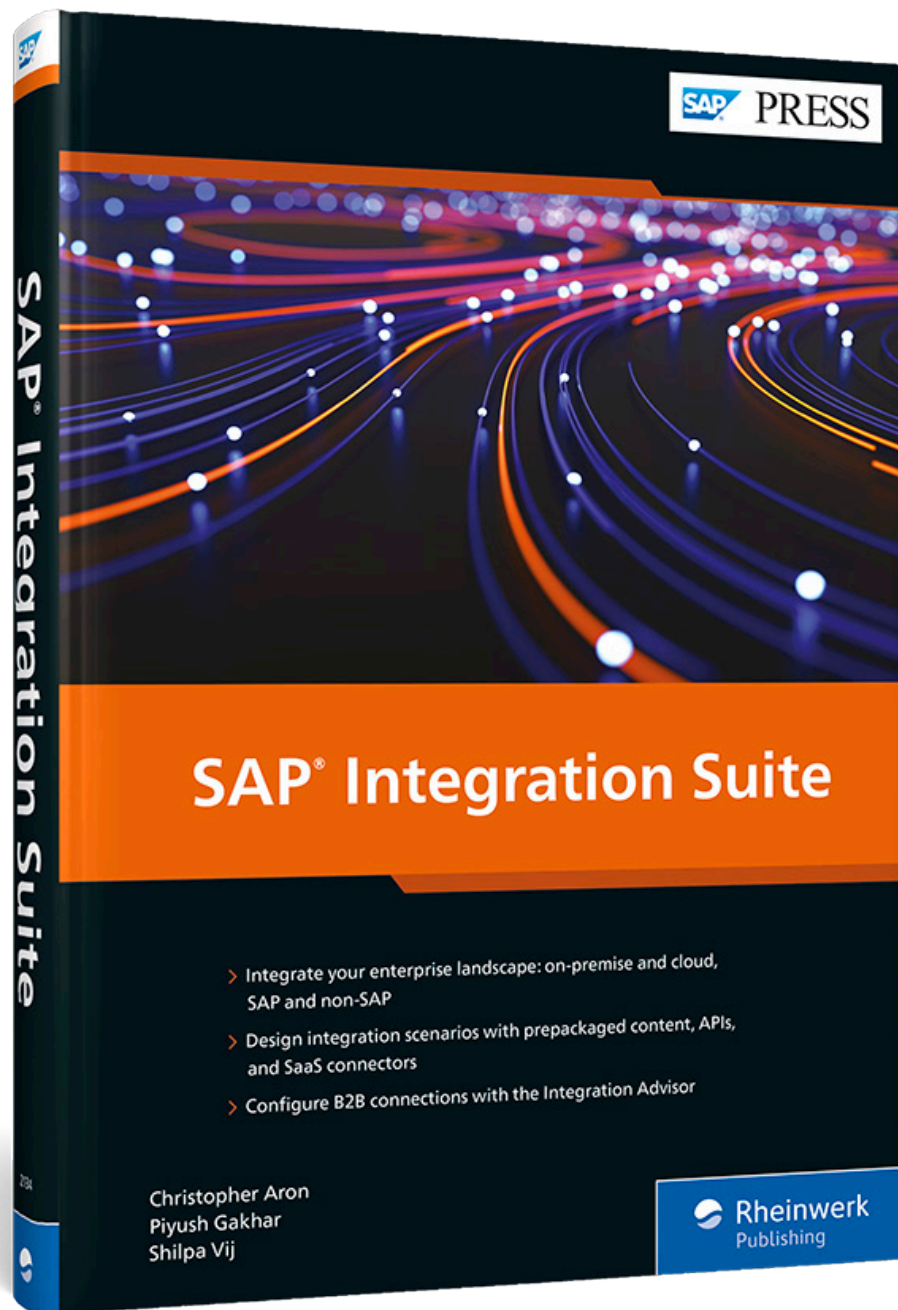
### SAP Integration Suite

343 Pages, 2021, \$79.95

ISBN 978-1-4932-2134-9



[www.sap-press.com/5326](https://www.sap-press.com/5326)



## Chapter 3

# Prepackaged Integrations

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*In this chapter, we'll take our first look at SAP API Business Hub. We'll walk through the journey of discovering and consuming digital content from SAP and selected partners to accelerate your integrations.*

Digital transformation (a term picking up the pace and buzzing in everyone's ears) is no longer a surprise element in modern living; the recent past paved the way for its arrival, and it has arrived naturally today with a pervasive, profound presence. More and more industries offering goods and services to consumers are becoming digital, thereby increasing online sales. E-commerce, the internet, and the use of smartphones have penetrated our lives so deeply that we cannot afford any kind of service disruption. E-commerce companies are striving hard to reduce the latency in their turn-around time and provide a seamless customer experience.

Behind the scenes, these companies are constrained by complex and hybrid IT landscapes and huge data lakes and also have to be on top of the latest and the greatest innovations. To drive business value, companies have to reimagine their landscapes, redesign their architecture to deliver personalized and intelligent experiences, accelerate/squeeze project timelines from months to days across diverse technologies, and flexibly adapt to rapidly changing business needs.

For organizations in the digital transformation journey and eager to become intelligent enterprises quickly, SAP offers integration packs. SAP API Business Hub (<https://api.sap.com>) is the central catalog for prepackaged integrations, application programming interfaces (APIs), events, workflows, and business processes to jump-start and accelerate your digital transformation journey.

The purpose of this chapter is to walk you through the central catalog of out-of-the-box content offered by SAP and selected partners. You'll see how users can search, discover, test, and consume integration and API content and engage with SAP API Business Hub. To do this, you'll start your journey by logging into SAP API Business Hub, experiencing different content types, building apps and configuring integrations, learning about the community and partner collaboration in the SAP API Business Hub, and determining best practices and reviewing guidelines for selecting a development approach.

### 3.1   SAP API Business Hub

To simplify and accelerate your integrations, SAP API Business Hub is available, a web-based application hosted by SAP (see Figure 3.1). As of the time of writing, it provides 1,700-plus APIs and events and 2,000-plus integrations for end-to-end scenarios such as hire-to-retain, lead-to-cash, source-to-pay, travel-to-reimburse, and more. You can discover, test, and consume these integrations and APIs to create apps and extensions.

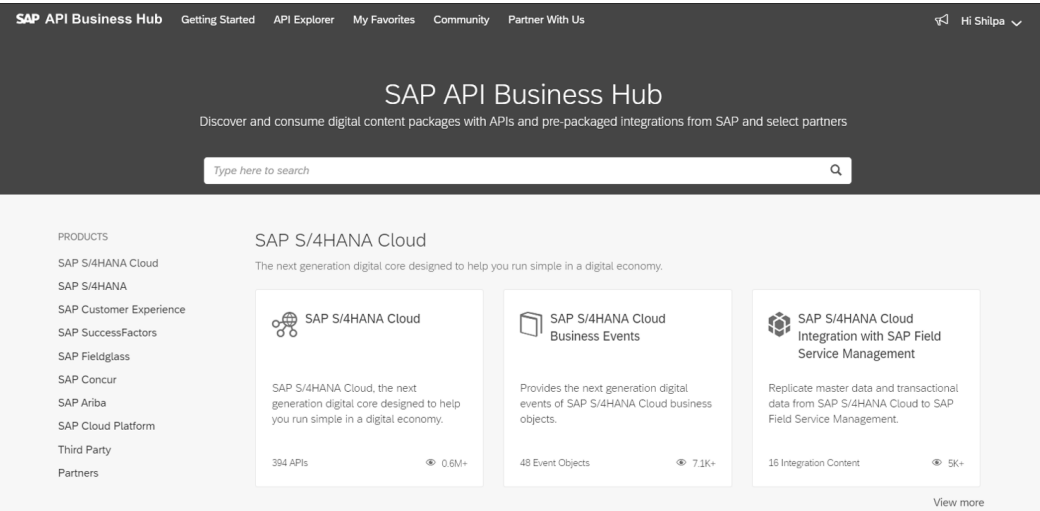


Figure 3.1 SAP API Business Hub Home Screen

SAP API Business Hub simplifies the development process and reduces the effort for the following personas:

- Application developers looking for APIs to quickly build apps and extensions, be they mobile applications or web applications
- Integration developers who are looking to develop end-to-end integrations (application-to-application [A2A] or business-to-business [B2B]) and developers who are working on event definitions that help their businesses to “run simple” in a digital world
- Process owners who want to work on the business processes and workflows in a low-code/no-code environment

In this section, we’ll discuss the key features of SAP API Business Hub and take a tour of its offerings.

#### 3.1.1   Salient Features

SAP API Business Hub provides three key features, as shown in Figure 3.2.

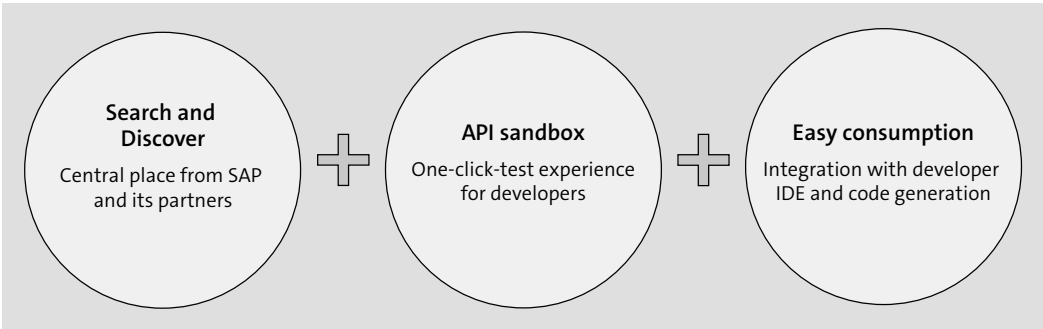


Figure 3.2 SAP API Business Hub’s Salient Features

Let’s take a closer look at the features provided by SAP’s rich catalog to explore digital content:

- **Search and discover**  
After logging in at <https://api.sap.com>, you’ll see the search bar (see Figure 3.3), in which you can type the search term or name of the content you’re looking for to view and navigate to the associated digital content. To further simplify the user experience and ease your day-to-day job, you can select from the available options under **Refine By** to refine the search based on **Type**, **Products**, **Industries**, **Line of Business**, **Vendor**, and **Country/Region**.

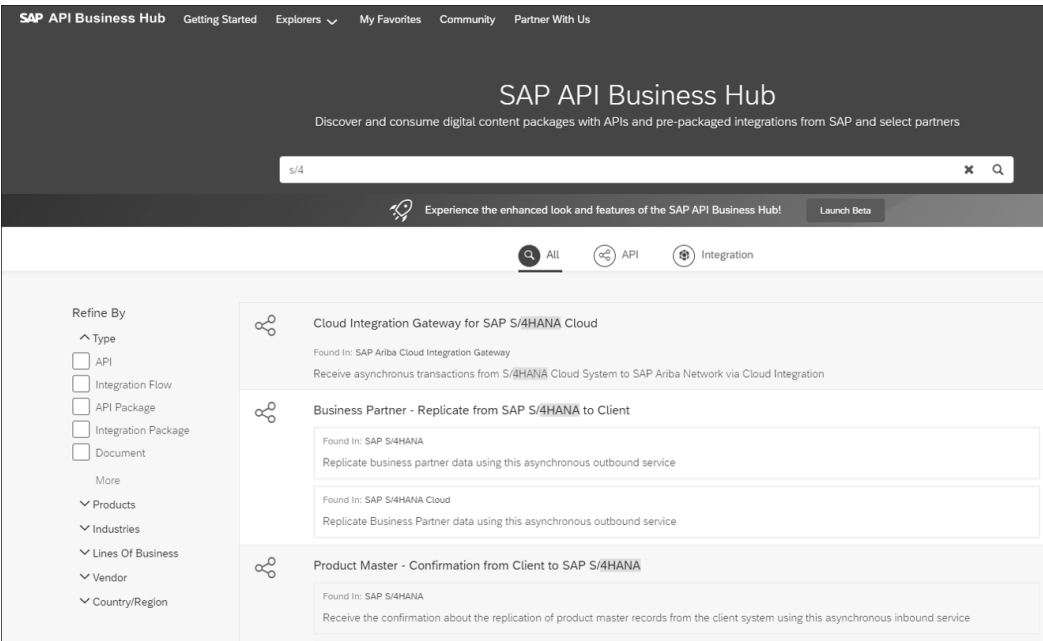


Figure 3.3 Search Options for Integrations and APIs

■ **API sandbox: try before you buy**

SAP API Business Hub provides a dedicated testing environment called the API sandbox to emulate the behavior of production APIs without buying the production system. This helps API developers and API owners in the following ways:

- Cost-free testing of APIs
- Experience APIs without committing to a paid instance
- Improved developer experience
- Reduced strain on production systems

**Note**

In the SAP API Business Hub, all sandbox APIs are protected by an API key, which is generated per user. The API sandbox in the SAP API Business Hub is intended solely for evaluation purposes and should not be relied on for any productive use.

■ **Ease of consumption**

The SAP API Business hub provides a seamless consumption experience for API consumers. It helps developers to consume the APIs by generating codes and providing integration with popular IDEs—for example, SAP Business Application Studio—to quickly build prototypes. It also provides tight integration with the Cloud Integration capability of SAP Integration Suite. Integration packages, which are available on SAP API Business Hub, can be consumed in the Cloud Integration capability, which we'll discuss further in Chapter 5.

**3.1.2 Exploring SAP API Business Hub**

In this section, we'll walk through SAP API Business Hub. We'll explore each of the key tabs that you can find at the top of the landing page.

**Getting Started**

Once you enter the SAP API Business Hub to discover digital content, intending to build apps, integrations, and extensions, you can quickly start your journey by clicking the **Getting Started** tab, as shown in Figure 3.4.

You can explore the world of APIs, integrations, and business processes, get guidance on working with digital content organized into packages, extend these business functionalities to meet your needs, and finally partner with SAP to enhance this content. You can participate in the Partner Engagement program and interact with a vibrant community of developers, product managers, product owners, integration experts, enterprise architects, integration consultants, and other stakeholders to learn and to get tips and tricks to improve the experience.

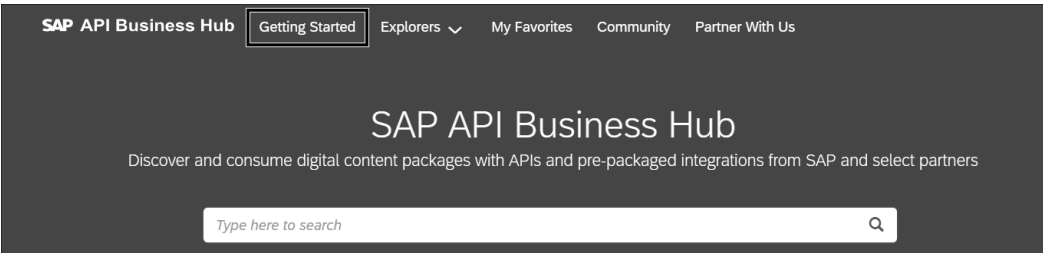


Figure 3.4 Get Started with SAP API Business Hub

The digital content on SAP API Business Hub is organized into packages. A package on the SAP API Business Hub is a logical bundling of related artifacts that enables developers to easily build applications, be they mobile, iOS SDKs, SAP Fiori, or others, and to accelerate integrations easily. We will deep dive into each type of package in Section 3.2.

**Explorers**

You can mark your frequently used APIs in the **Explorers** tab, as shown in Figure 3.5.

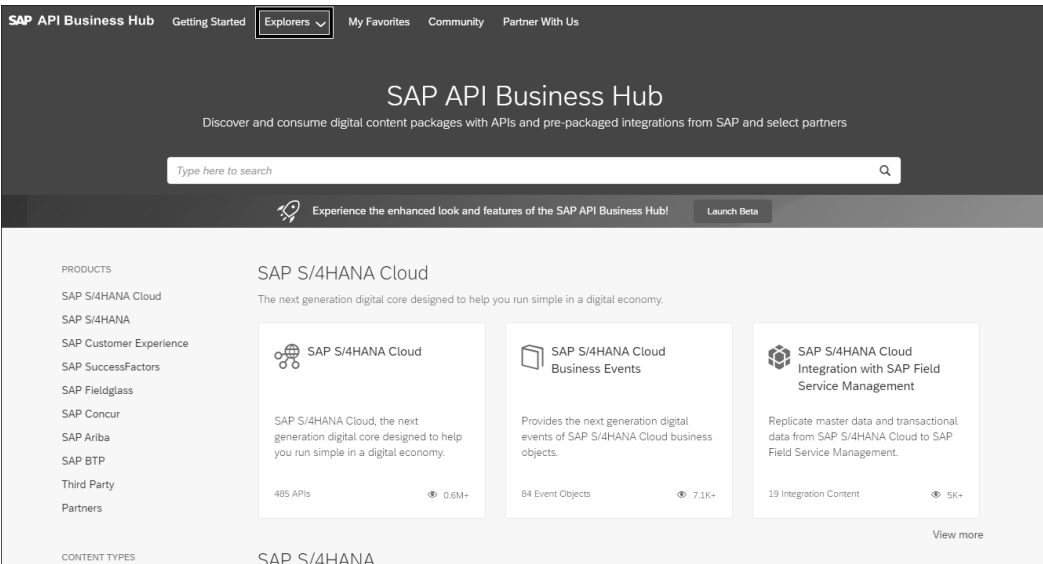


Figure 3.5 Different Explorer Options

For example, say you want to work with SAP S/4HANA Cloud APIs and would like to check the sales order response daily. To get it to your personal space via the **API Explorer** option, follow these steps:

1. Select **API Explorer** from the **Explorers** dropdown to arrive at the screen shown in Figure 3.6.
2. Click the **Add (+)** button.

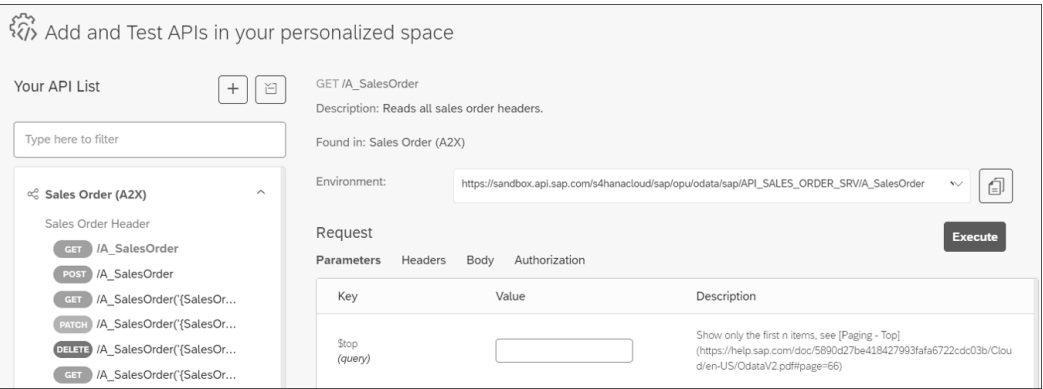


Figure 3.6 API Explorer Personalized Space

3. Search for the APIs to be tested in your personalized space—for example “Sales Order (A2X)” —check the relevant boxes, and add them by clicking the **Add** button, as shown in Figure 3.7.

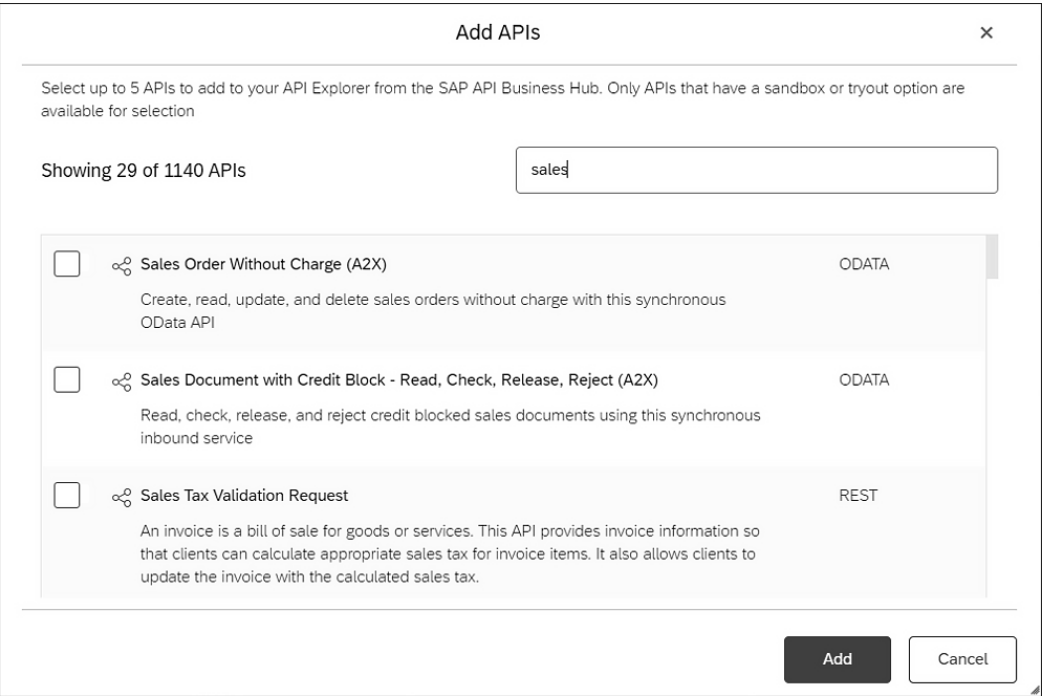


Figure 3.7 Personalized Space for Testing APIs

4. The APIs are added under **Your API List**, as shown in Figure 3.8.

5. You can execute them by clicking the **Execute** button to check the results, as shown in Figure 3.9. The result here should be the sales order coming from the sandbox system.

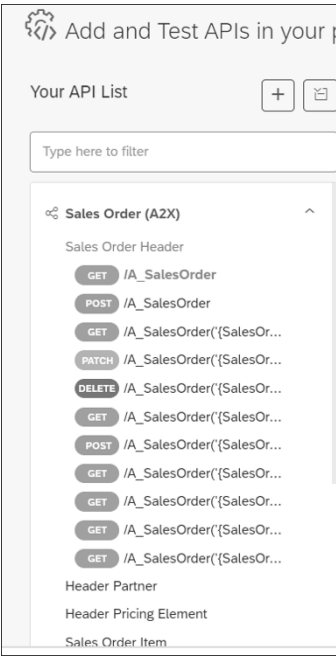


Figure 3.8 List of APIs

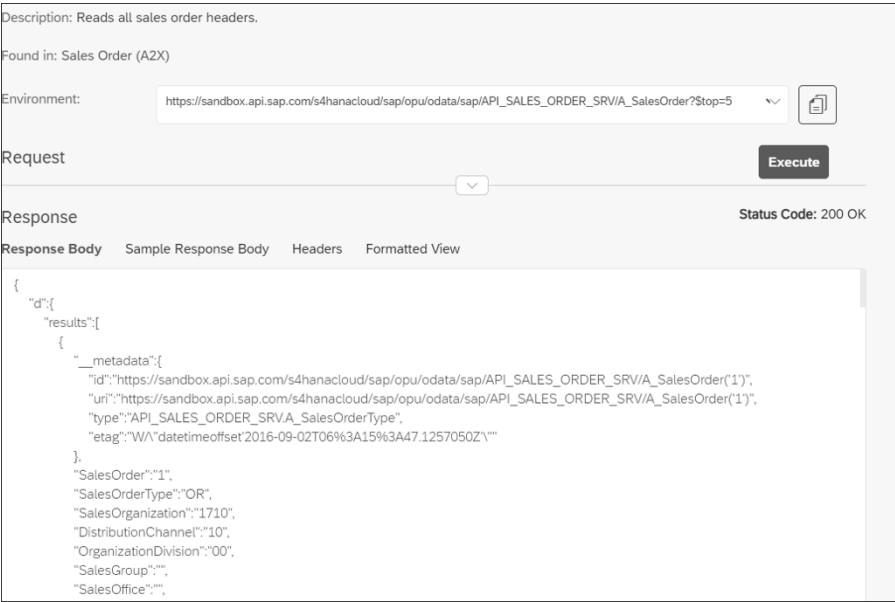


Figure 3.9 Test Results for API

The other option underneath the **Explorers** tab is **SAP One Domain Model**, as shown in Figure 3.10. SAP One Domain Model is the lingua franca of the intelligent suite. This common language is used across SAP solutions. SAP One Domain Model, a single and

coherent domain model for SAP’s intelligent suite, is available on the SAP API Business Hub. It focuses on providing visual documentation of business entities and their relationships to each other and synchronizes business objects with the use of common semantics for end-to-end business processes. It accelerates integration and eases extension use cases by providing consistent APIs across business processes for the intelligent enterprise.

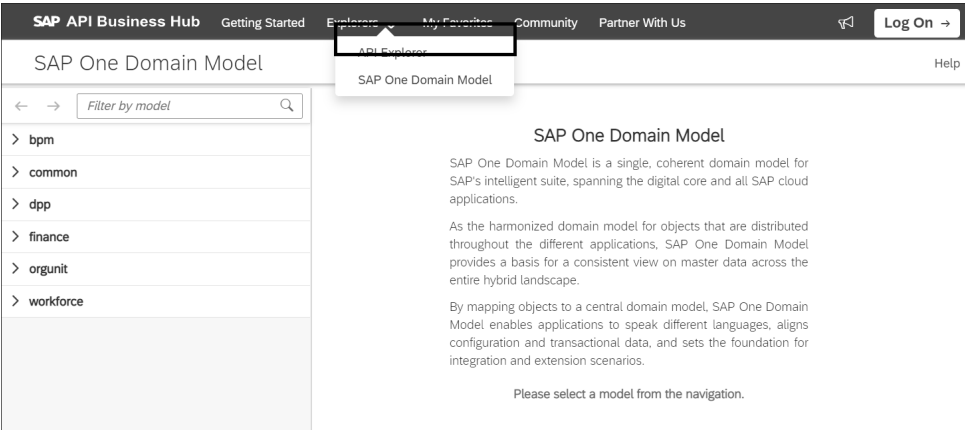


Figure 3.10 SAP One Domain Model on SAP API Business Hub

By using the SAP One Domain Model, customers can leverage common semantics that translate into reduced SAP-to-SAP integration efforts. Applications can synchronize well with each other although they speak different languages, and it aligns configuration and transactional data. Developers can take advantage of an SAP One Domain Model exchange format to achieve a consistent view of master data in the hybrid environment. In the example shown in Figure 3.11, we’ve selected the **bpm** model.

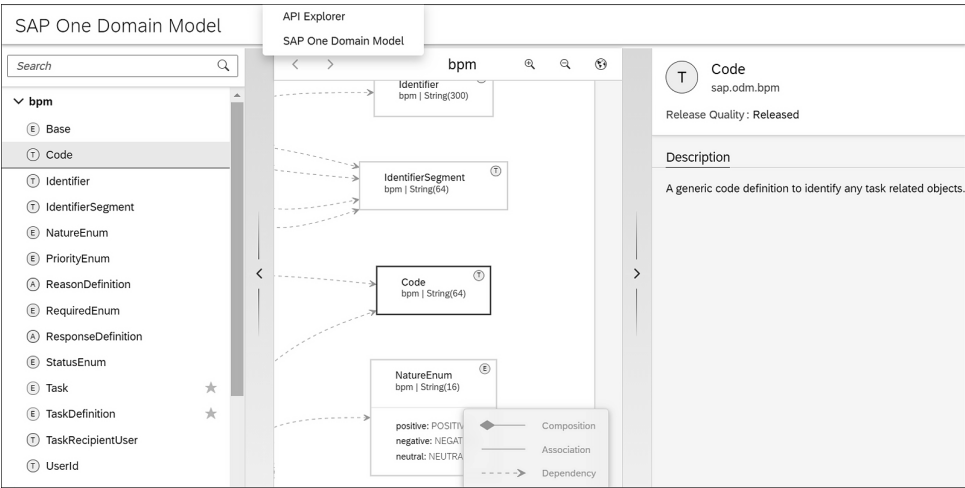


Figure 3.11 Details of SAP One Domain Model

### My Favorites

When you want to access your integrations quickly with shortcuts, you can log into the SAP API Business Hub and add favorites. For instance, say you want to make a list of e-invoice packages, to keep them handy and monitor the patterns of how the government has introduced a goods and service tax (GST). To add favorites, follow these steps:

1. Log into the SAP API Business Hub.
2. Search for the integration package you want to mark as a favorite—such as “e-Invoice”.
3. Click the **Mark as Favorite** button, as shown in Figure 3.12.

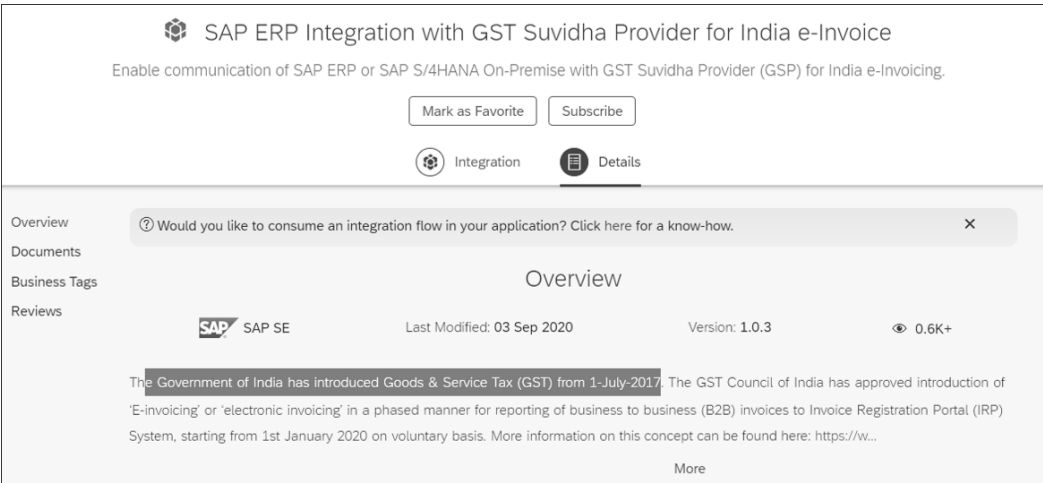


Figure 3.12 How to Mark Your Favorite APIs

4. Navigate to the **My Favorites** tab from the top menu bar. You can see that the package is listed, as shown in Figure 3.13.

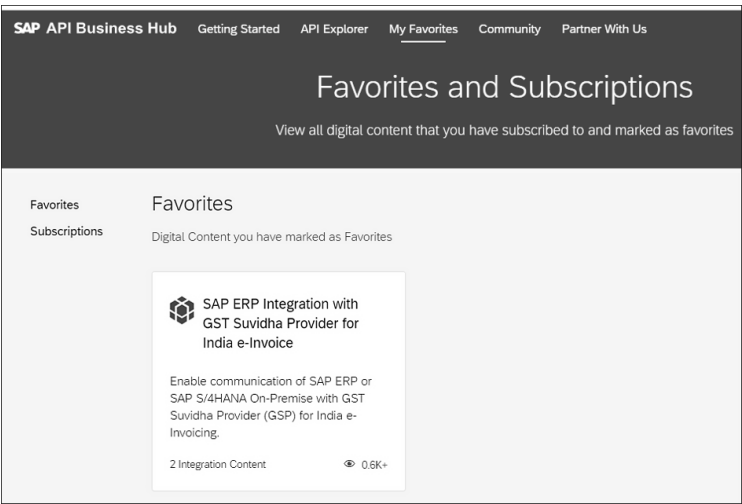


Figure 3.13 List of Your Favorite Integrations

Community

If you are in a company just starting its digital transformation journey, you might notice that digital transformation requires a drastic shift in both mindset and behavior. To help, there’s a vibrant SAP Integration Suite community focusing on APIs and integrations, which you can navigate to via the **Community** tab, as shown in Figure 3.14.

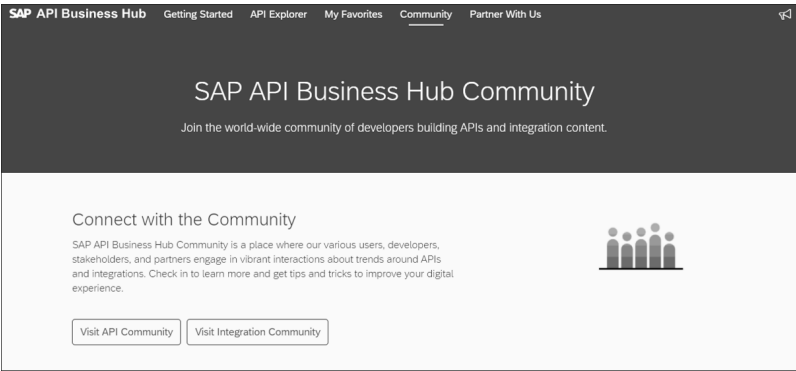


Figure 3.14 SAP API Business Hub Community

Partner with Us

SAP works closely with members and partners with aligned goals to create, codevelop, and nurture an effective network. This allows you to partner with SAP to publish your APIs and integration packs on the SAP API Business Hub. You can explore and experience the rich catalog from other partners and SAP under the **Partner With Us** tab, as shown in Figure 3.15. SAP recommends best practices and guidelines to quickly get you started with your integration journey. We will also discuss partner onboarding in detail in Section 3.4.

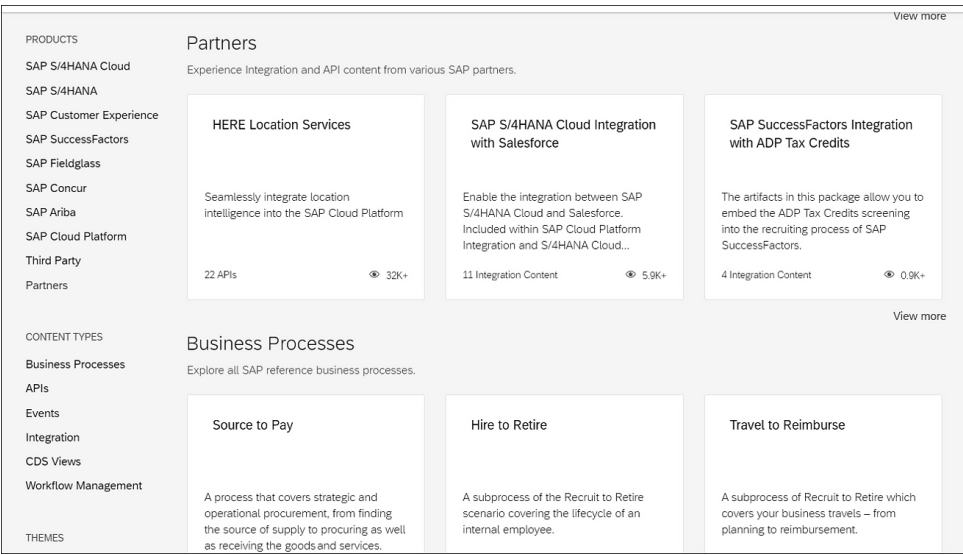


Figure 3.15 Partner Digital Content

3.2    Prepackaged Accelerators

SAP API Business Hub is the place to get started with building apps, extensions, and business networks and to integrate with applications, business partners, and government agencies. Creating a strong value proposition and new business opportunities/revenue models, plus evolving during the digital transformation, is now made faster using prepackaged accelerators.

As of the writing this book, SAP API Business Hub has more than 3,000-plus digital artifacts—business processes, integration flows, APIs, events, adapters—across 335 packages, with millions of API calls in the API sandbox. Let’s dive into prepackaged accelerators and see how each one of them can help to accelerate your integration journey. The following are the different types of packages available:

■ API packages

An API package contains building blocks (APIs) and the related documentation for developers to extend solutions, integrate to collaborate with the business, and perform innovations on top. They also contain preshipped templates from SAP for securing, managing, and governing the APIs so that customers foster innovation instead of reinventing the wheel.

Customers can view the basic details of the packages, preview the package tile details, and collect information such as the type of the package, number, version number, type of digital content available, and usage of the content. Each integration and API package has a name and brief description in the header section of the package, as shown in Figure 3.16.

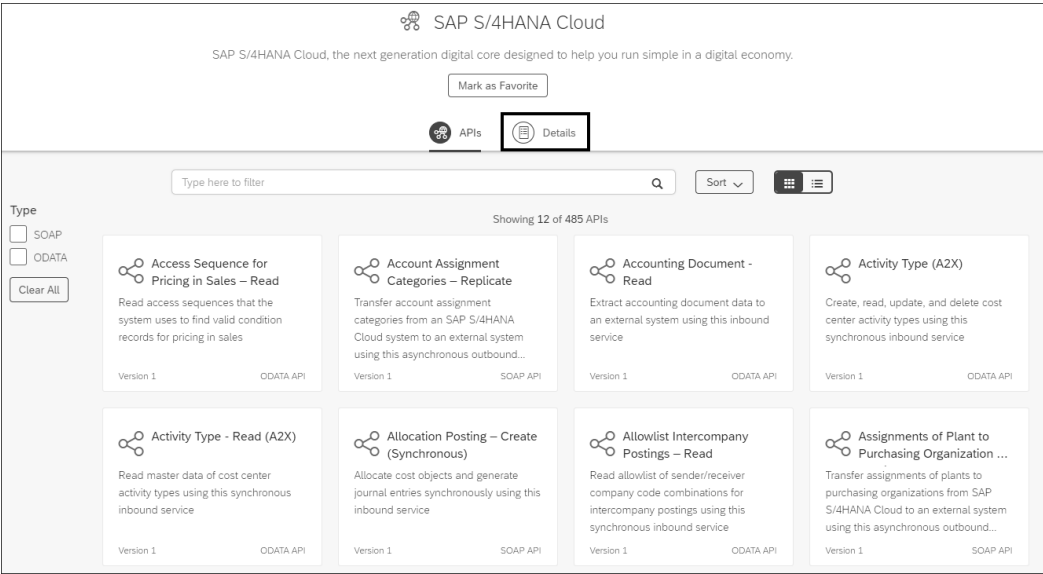


Figure 3.16 API Package

To know the details of the package, navigate to the **Details** tab, which provides complete information about the package, including business tags and documents.

■ **Integration packages**

Integration packages, as shown in Figure 3.17, contain different integration artifacts bundled together as integration flows, message mappings, and value mappings. Integration packages can be copied to your workspace and deployed to set up communication between different sender and receiver participants.

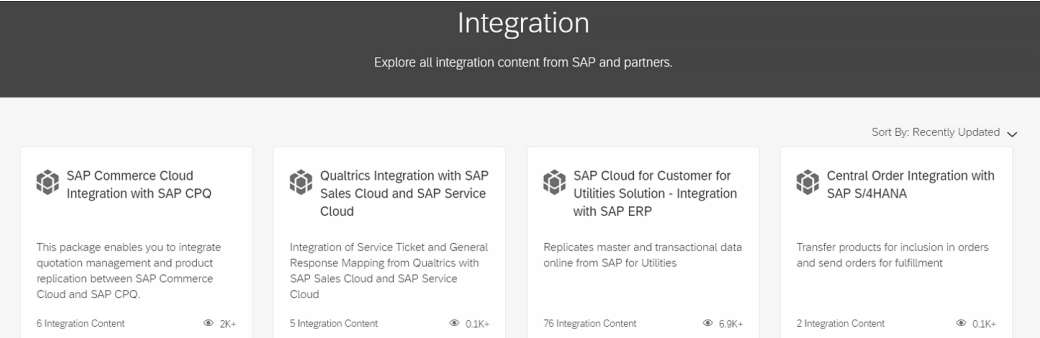


Figure 3.17 Integration Packages

■ **CDS views**

To find all the core data services (CDS) view-related information—for example, the properties of the CDS view—the metadata and data types are listed in this package (see Figure 3.18).

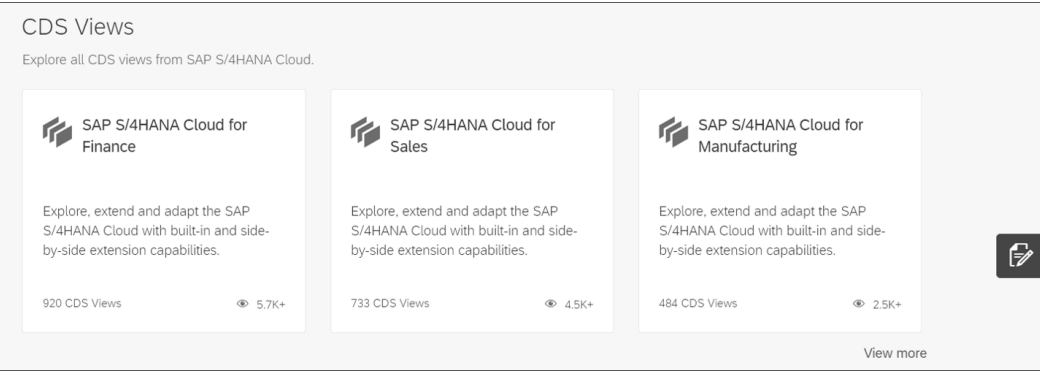


Figure 3.18 CDS Views

■ **Open Connector packages**

This package contains APIs for third-party integration, as shown in Figure 3.19. Each package has its own set of documentation to learn about the connectors and how you can use them in your integration scenarios.

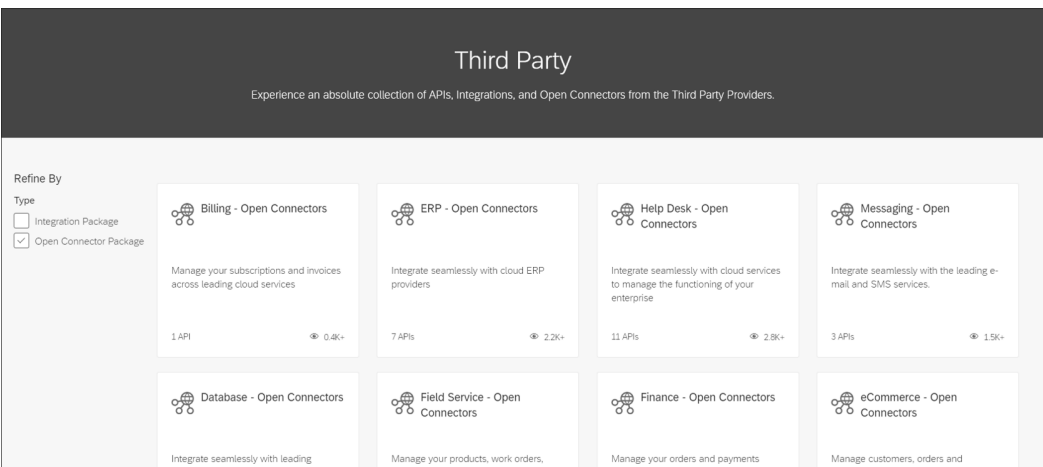


Figure 3.19 Third-Party Packages

■ **Event packages**

A digital event catalog can be found in the event packages, as shown in Figure 3.20. Underpinning agents for each event catalog are the APIs for receiving and sending notifications in case of a change of objects in the backend system, such as SAP S/4HANA.

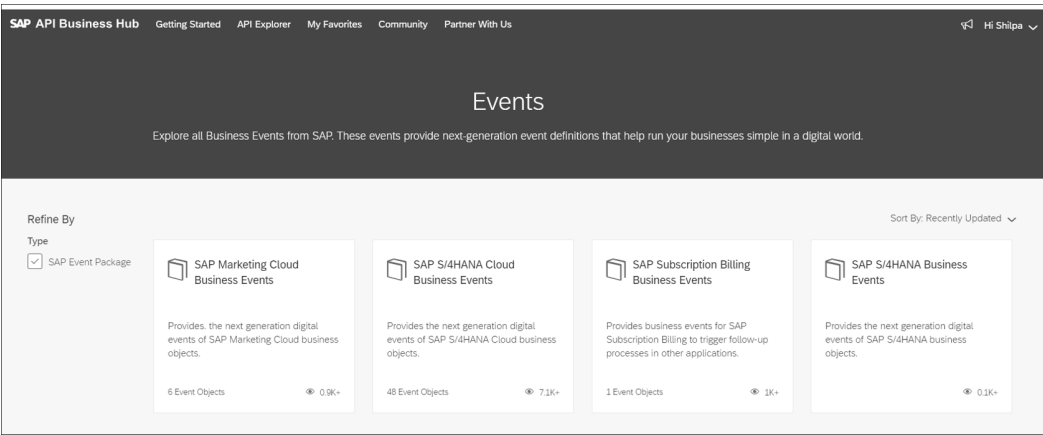


Figure 3.20 Event Packages

■ **Business process packages**

For end-to-end business interactions such as lead-to-cash, hire-to-retire, source-to-pay, and so on, packages are available that contain an end-to-end flow of activities to support each business process, as shown in Figure 3.21.

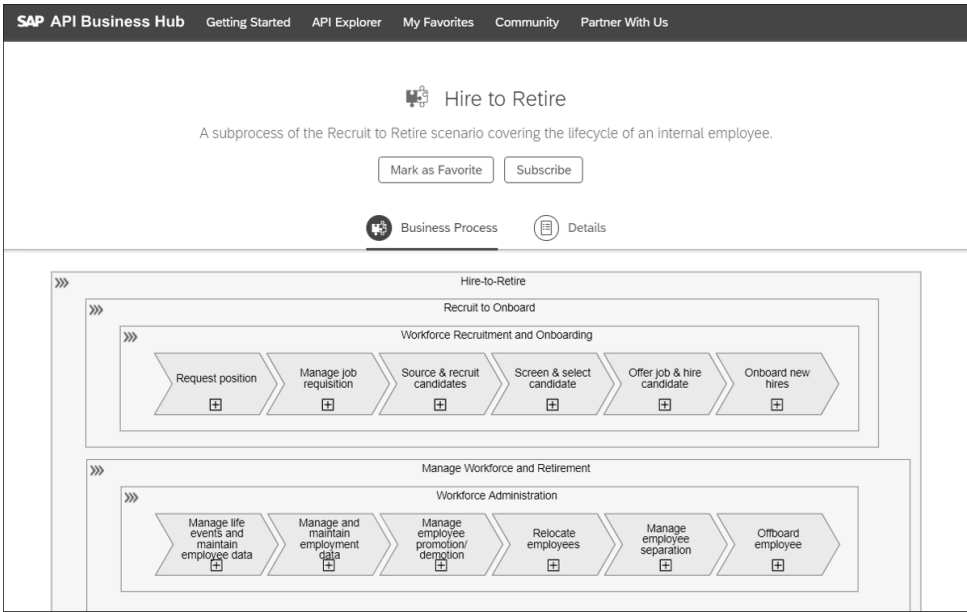


Figure 3.21 Business Process Packages

■ Workflow management packages

To orchestrate, digitize, manage, and automate decisions, the workflow management packages, as shown in Figure 3.22, can be leveraged to configure the workflow in a low-code approach. Users can build, run, and gain end-to-end process excellence by providing one view of the process.

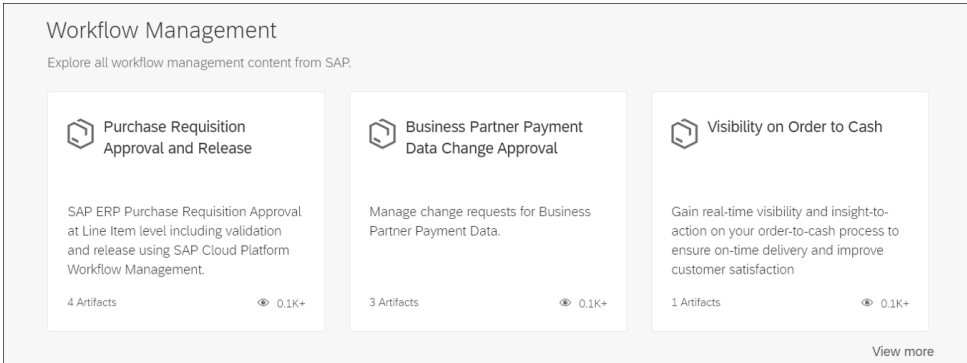


Figure 3.22 Workflow Management Packages

### 3.3 Building Applications, Extensions, and Integrations

To build sample applications, extensions, and integrations with SAP and third-party or non-SAP applications, SAP API Business Hub is the one-stop shop to get started. In this

section, we'll walk through the key processes to discover, test, and consume APIs and other integration content.

#### 3.3.1 Discovering APIs

How can you find the right APIs to meet your business needs? Exploring the SAP API Business Hub should be your first choice to discover the right API. SAP applications, backend systems, and business networks continue to expose their data through APIs to facilitate codevelopment, innovation, and wins in the digital economy. Let's start the journey of building an SAP Fiori application by discovering the right SAP S/4HANA APIs. Follow these steps:

1. Navigate to <https://api.sap.com>.
2. Click **APIs** under **CONTENT TYPES** to discover APIs from SAP SuccessFactors, SAP S/4HANA Cloud, Concur, SAP Ariba, SAP Business Technology Platform (SAP BTP), and 1,700-plus more APIs, as shown in Figure 3.23.

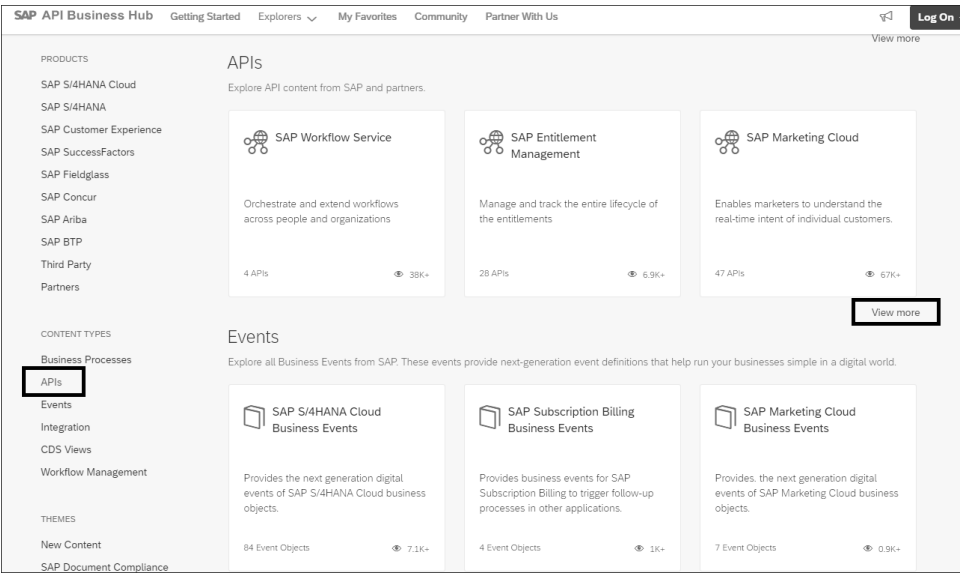


Figure 3.23 API Packages

3. Click **View More** to view all the API packages. For this example, select the **SAP S/4HANA Cloud** API package to see all the APIs specific to SAP S/4HANA Cloud, as shown in Figure 3.24.

**Note**

SAP S/4HANA Cloud contains a mix of OData and SOAP APIs. OData APIs are useful in building digital applications like SAP Fiori applications or mobile applications. The SOAP service is useful in system integration scenarios.

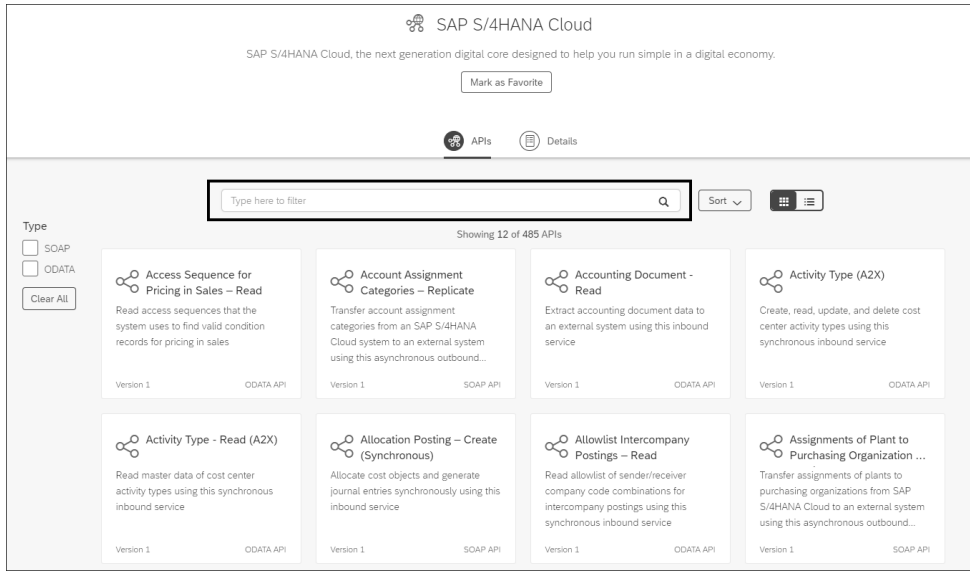


Figure 3.24 SAP S/4HANA Cloud APIs

4. To search for specific APIs, like ones for sales orders, type, say, “Sales Orders” in the **Filter Artifacts** text field. Click the Sales Orders API from the filtered responses to view the API details.

### 3.3.2 Testing APIs with the API Sandbox

Before proceeding further, it’s a good idea to test these APIs live from the API sandbox. To do so, follow these steps:

1. Select the **Sales Order (A2X)** API and click the **Try out** button, as shown in Figure 3.25.

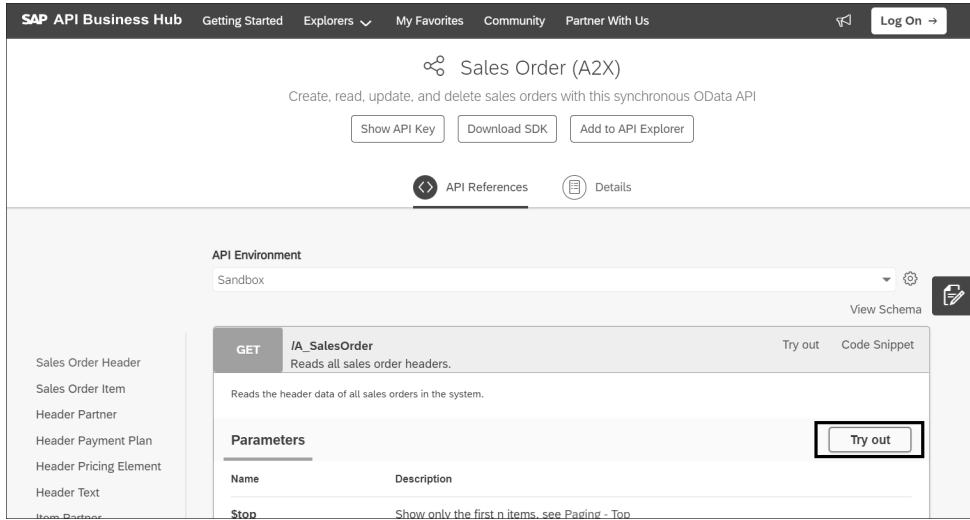


Figure 3.25 Try Out APIs

### 3.3.3 Consuming APIs

SAP Business Application Studio is a powerful, web-based integrated development tool to improve end-to-end application development by providing more control over the environment and code. It enables developers to quickly discover APIs from SAP API Business Hub to generate SAP Fiori applications. Let’s get started and see how we can consume APIs.

#### Create Destination

Once the Sales Orders API has been explored and tested from the SAP API Business Hub, we can consume this API to build an SAP Fiori application in SAP Business Application Studio. Follow these steps:

1. Navigate to <https://account.hanatrial.ondemand.com/cockpit>.
2. Click **Your Trial** and navigate to your trial account.
3. Under **Connectivity**, click **Destinations**, as shown in Figure 3.26.

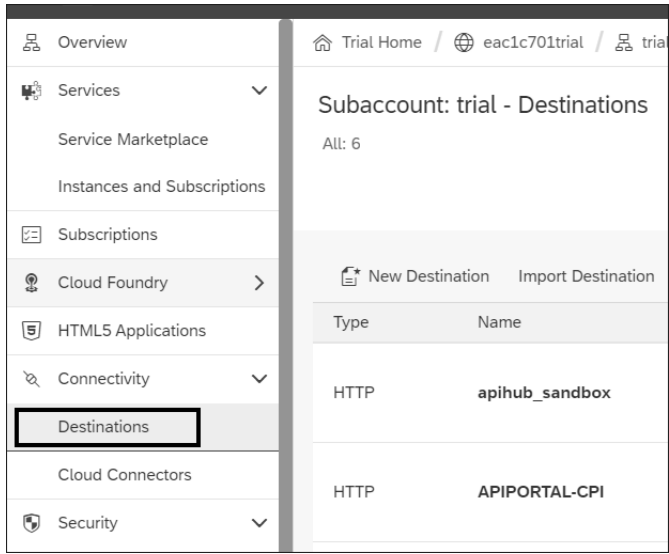


Figure 3.26 Create Destination

4. You need two destinations. The first one points to the SAP API Business Hub, and the second one points to the SAP API Business Hub sandbox, which provides service metadata and allows you to run the application. To create a destination, save the following two destinations separately in text files:
- The first destination is shown in Listing 3.1. Its purpose is to connect to SAP API Business Hub.
  - The second destination is shown in Listing 3.2. Its purpose is to connect to the SAP API Business Hub sandbox.

```
#
#Fri Oct 30 09:47:54 UTC 2020
Description=SAP API Business Hub
Type=HTTP
TrustAll=true
HTML5.DynamicDestination=true
Authentication=NoAuthentication
WebIDEUsage=apihub_catalog
Name=SAP_API_Buisness_Hub
WebIDEEEnabled=true
ProxyType=Internet
URL=https://api.sap.com
WebIDESystem=SAP API Business Hub
```

Listing 3.1 Connect to SAP API Business Hub

```
#
#Fri Oct 30 09:47:53 UTC 2020
Description=SAP API Busniess hub sanbox
Type=HTTP
HTML5.DynamicDestination=true
Authentication=NoAuthentication
WebIDEUsage=apihub_sandbox
Name=apihub_sandbox
WebIDEEEnabled=true
ProxyType=Internet
URL=https://sandbox.api.sap.com
```

Listing 3.2 Connect to SAP API Business Hub Sandbox

5. Next, import them under the **Destination** section by clicking the **Import Destination** button, as shown in Figure 3.27.

New Destination <b>Import Destination</b> Certificates   Download Trust   Download IDP Metadata   Renew Trust			
Type	Name	Basic Properties	
HTTP	apihub_sandbox	Authentication ProxyType URL	NoAuthentication Internet https://sandbox.api.sap.com
HTTP	APIPORTAL-CPI	Authentication ProxyType URL	BasicAuthentication Internet https://eac1c701trial.it-cpitrial.cfapps.us10.hana.ondemand.com:443

Figure 3.27 Import Destination

6. You'll arrive at the screen shown in Figure 3.28, and all the fields should be prefilled. You can click the **Save** button.

Destination Configuration

Name: \*SAP\_API\_Buisness\_Hub

Type:HTTP

Description:SAP API Business Hub

URL: \*https://api.sap.com

Proxy Type:Internet

Authentication:NoAuthentication

Additional Properties

HTML5.Dynam...true

TrustAlltrue

WebIDEEEnabledtrue

WebIDESystemSAP API Business Hub

WebIDEUsageapihub\_catalog

Save

Cancel

New Property

Figure 3.28 Destination Required to Establish Connection between SAP API Business Hub and SAP Business Application Studio

Creating an SAP Fiori Project

In this section, we'll walk you through creating an SAP Fiori project using SAP Business Application Studio. Follow these steps:

- 1. Navigate back to **Service Marketplace** on the left-hand side and select the **SAP Business Application Studio** tile.
- 2. Click the **Go to Application** button, as shown in Figure 3.29.

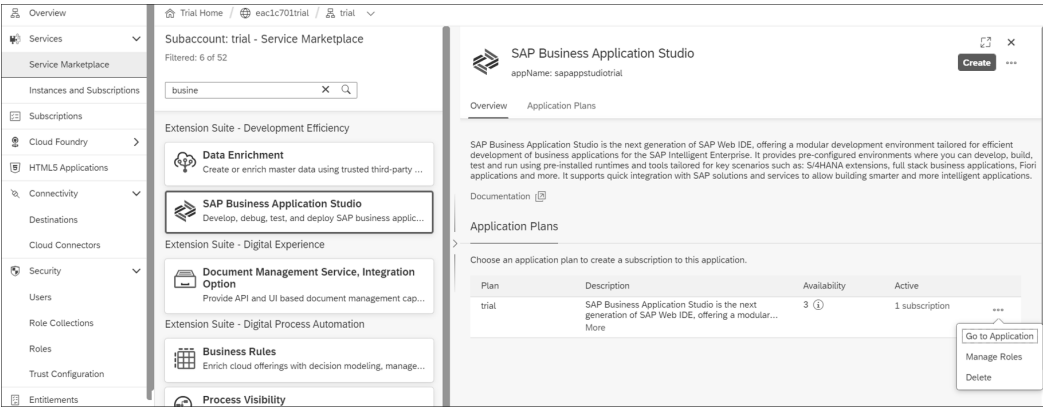


Figure 3.29 Navigate to SAP Business Application Studio

3. Create your dev space by clicking the **Create Dev Space** button, as shown in Figure 3.30. This is where you'll create your SAP Fiori project.

Create and manage your development environment according to the type of applications you want to develop.  
You can add extensions and tools to further enhance your development options.

Create Dev Space

Figure 3.30 Creating Dev Space

4. Give a name to your application in the upper-left-hand corner, select **SAP Fiori**, and click **Create Dev Space**, as shown in Figure 3.31.

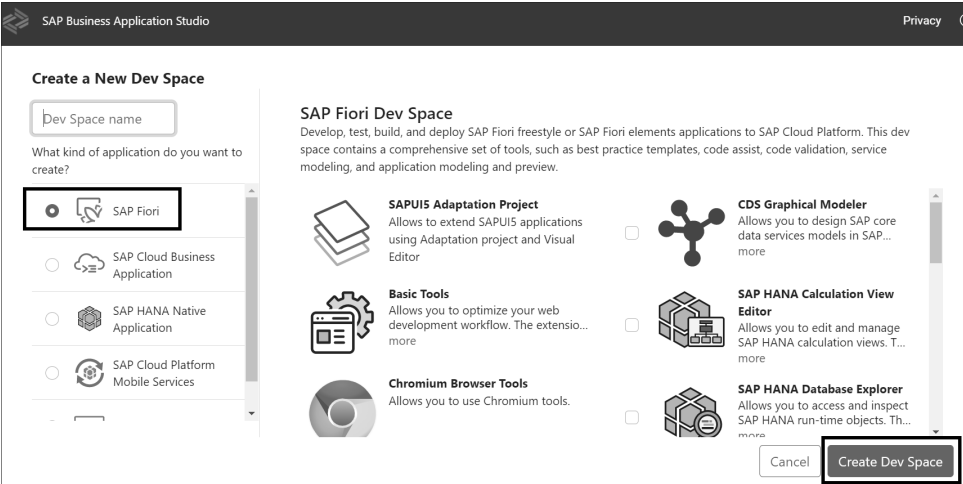


Figure 3.31 Name Dev Space

5. You can see your created space. Navigate inside your space and click **File • New Project from Template**, as shown in Figure 3.32.

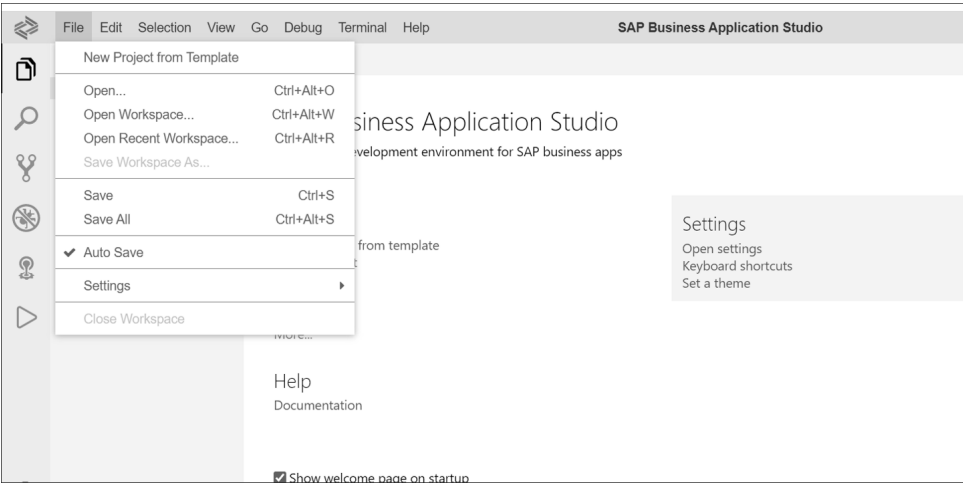


Figure 3.32 Creating Project from Template

6. Click **SAP Fiori Freestyle Project** to begin building your own SAPUI5 freestyle app, and then click **Next**, as shown in Figure 3.33.
7. Select the **Cloud Foundry** environment, select **SAPUI5 Application** as the template, and then click **Next**, as shown in Figure 3.34.
8. Enter your **Project Name**, as shown in Figure 3.35, and select **Next**.

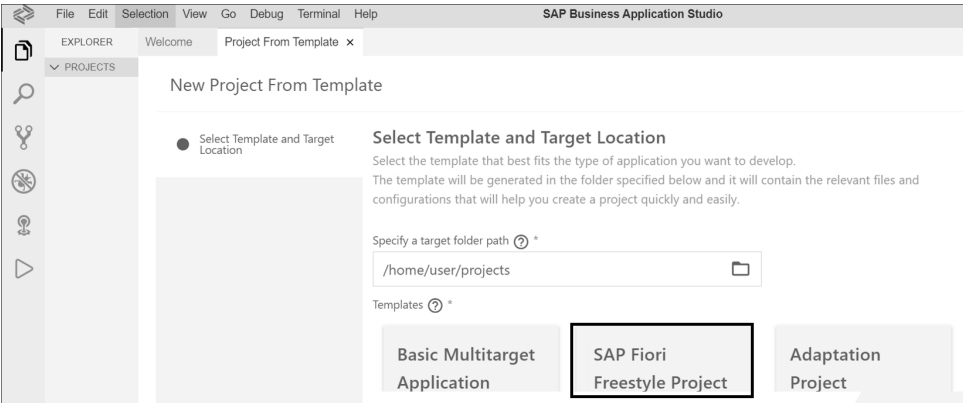


Figure 3.33 Create SAP Fiori Freestyle Project

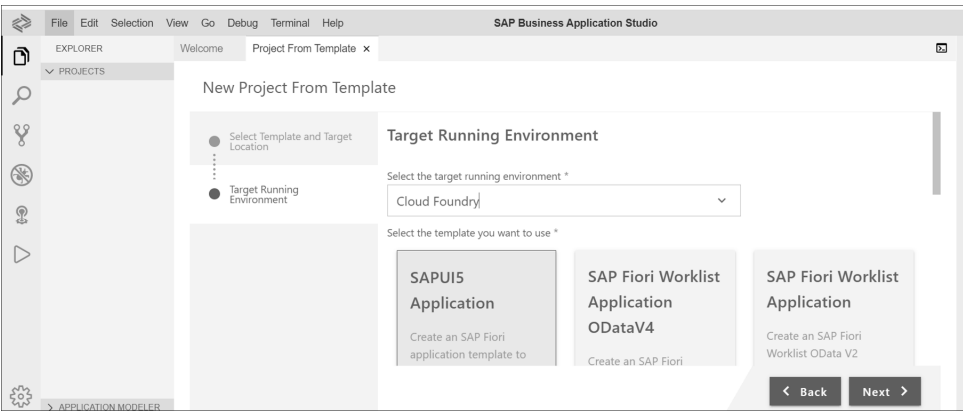


Figure 3.34 Select Environment

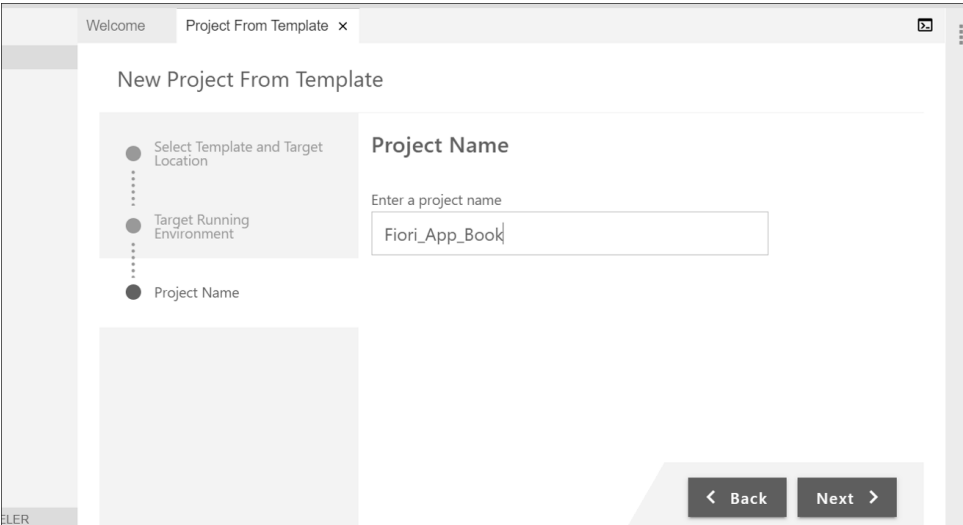


Figure 3.35 Your Project Name Screen

9. Select the **HTML5 Application Runtime**, either **Standalone Approuter** or the **Managed by the SAP Cloud Platform** app router, and then click **Next**. For this example, select **Standalone Approuter**, as shown in Figure 3.36.

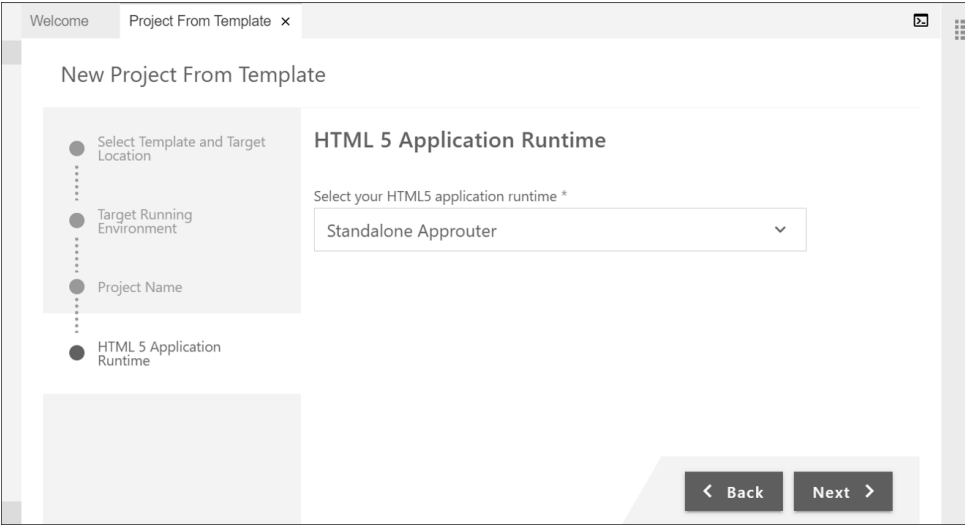


Figure 3.36 Your Application Runtime

10. You'll set up the basic attributes of your project in the next screen. Enter the HTML5 module name. Choose whether or not to add authentication (we've selected not in this example). Enter a namespace and then click **Next**, as shown in Figure 3.37.

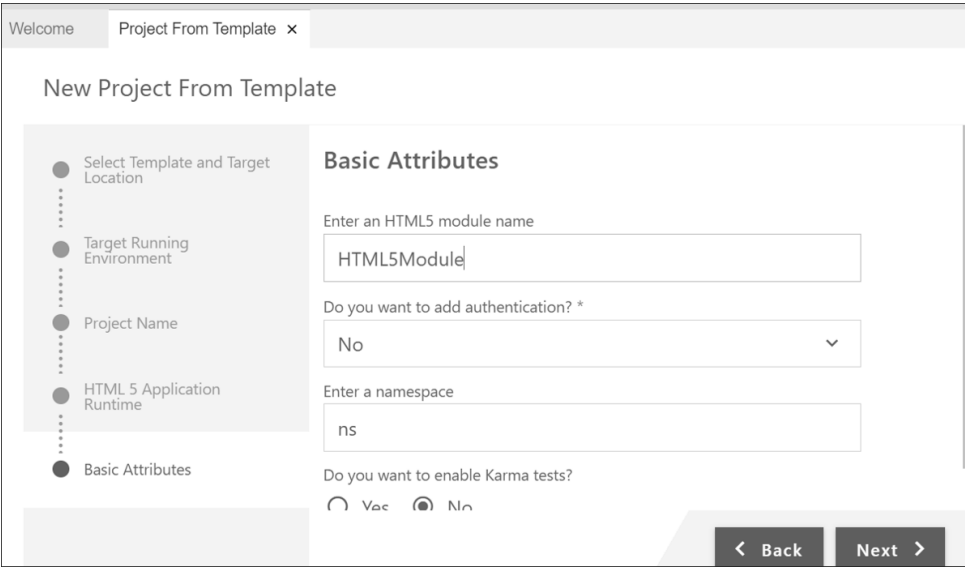


Figure 3.37 Basic Attributes of Your Project

11. Give a name to your view, select **Yes** to add a data service, and click **Next**, as shown in Figure 3.38.

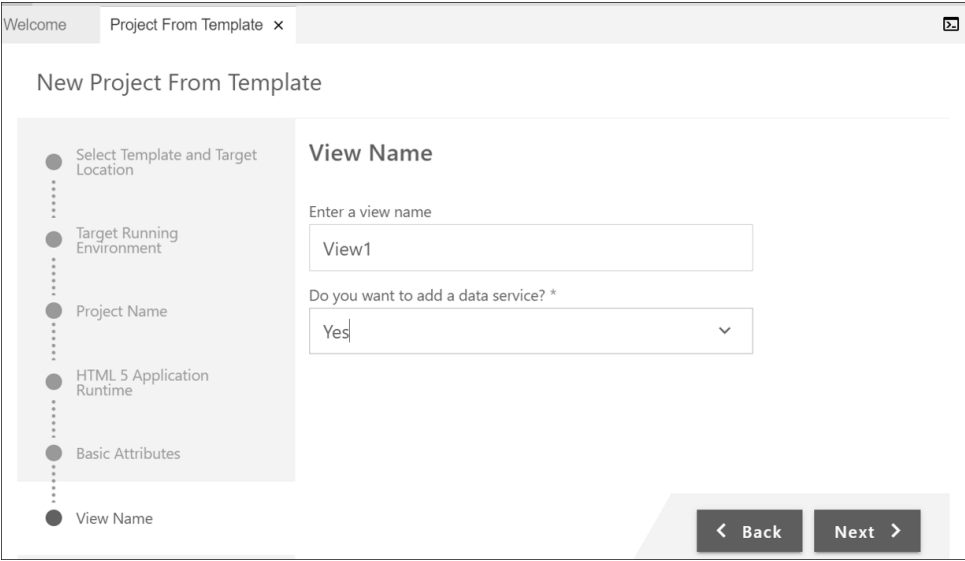


Figure 3.38 View Details

12. In the **Consume Services** step, choose the relevant data source. You can consume your service from different data source providers. Select the **SAP API Business Hub** in this case and click **Next**, as shown in Figure 3.39.

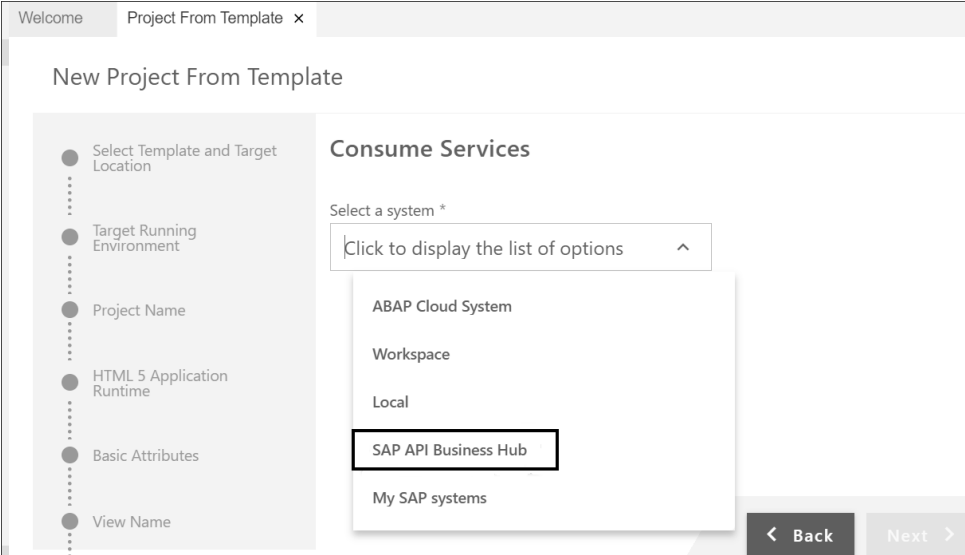


Figure 3.39 Consume Services

13. Select the following options to set up the SAP API Business Hub details, as shown in Figure 3.40:
- Select **SAP API Business Hub** as the data source.
  - Select the specific API service from the list of options (our sales order API, in this example).
  - Enter your login credentials to access the SAP API Business Hub.

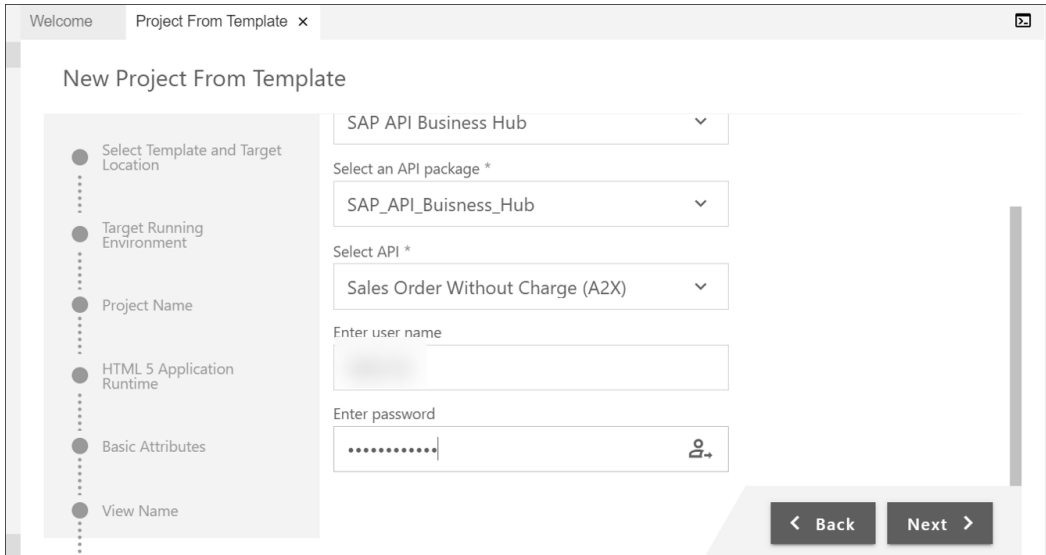


Figure 3.40 SAP API Business Hub Details

14. After clicking **Next**, the project will be created in your workspace, as shown in Figure 3.41.

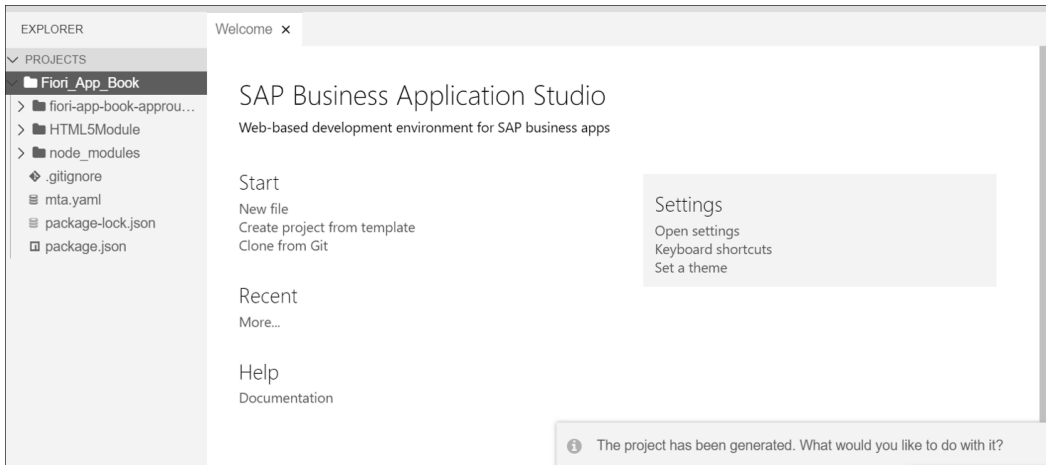


Figure 3.41 Created Project Details

15. Listing 3.3 is used to connect to the sandbox destination.

```
"dataSources": {  
  "mainService": {  
    "uri": "<sandboxdestination><servicepath><servicename>"  
  }  
}
```

Listing 3.3 SAP API Business Hub Connectivity

16. Now that the project is created, define and bind the sales order entities. Open the created project in the workspace by selecting it from the left-hand side, then open the *view.xml* file in the layout editor, as shown in Figure 3.42.

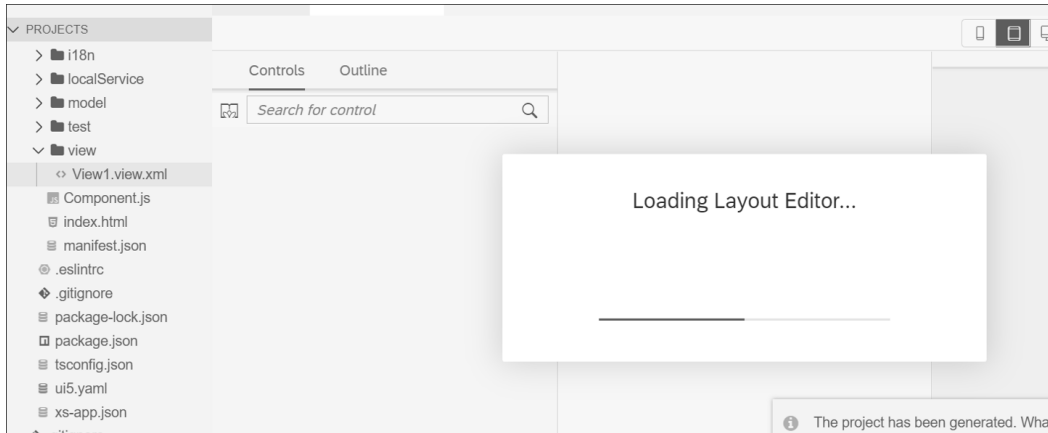


Figure 3.42 Layout Editor

17. Click **Undefined Entity Set** to define it and select the **Define entity set and set the selected control as template** option, as shown in Figure 3.43. This is selected to define the entity set as a template.

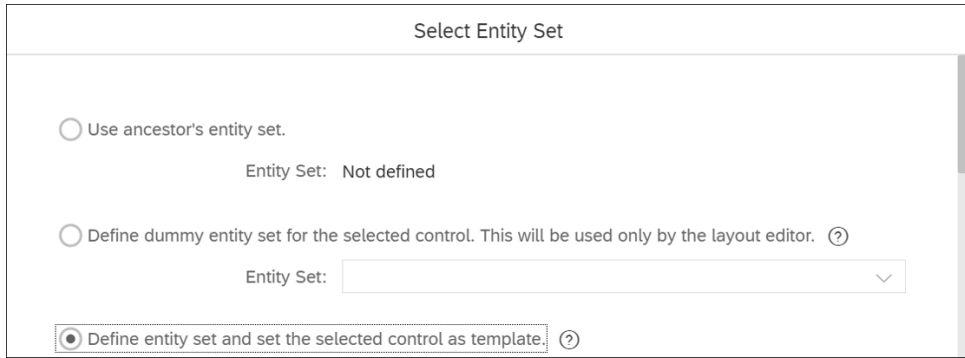


Figure 3.43 Define Entity Set

18. Select the **Entity Set**. You can choose any entity set; for this example, enter *"/A\_SalesOrderWithoutCharge"*, as shown in Figure 3.44.

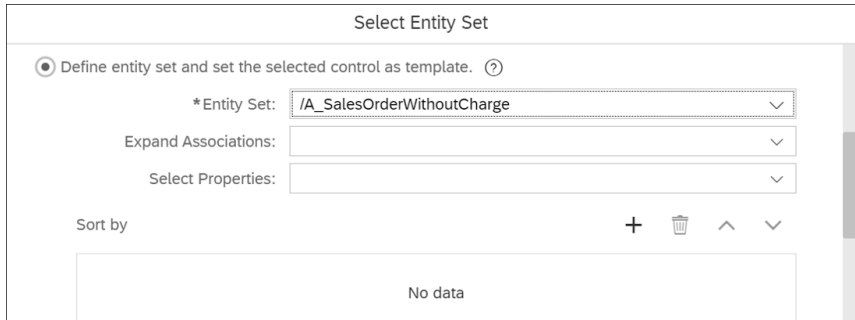


Figure 3.44 Select Entity Set

19. In the layout editor, you can bind properties of controls or control aggregations to an artifact in the OData service, as shown in Figure 3.45. Scroll down to bind them by clicking the **Bind** button.



Figure 3.45 Bind Entity Set

20. Bind the data by selecting the property title from the list, double-clicking the entity, and then clicking the **Bind** button, as shown in Figure 3.46. In this example, select **CreatedByUser** by double-clicking it.

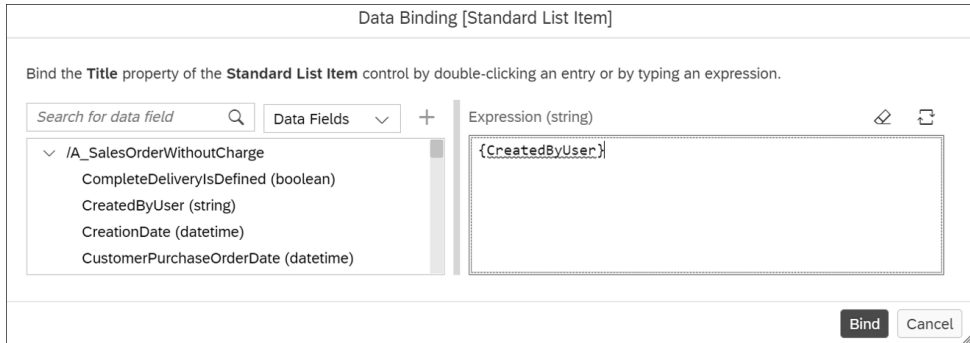


Figure 3.46 Bind Data to Entity Set

### Running the Project Locally

To see the results, run the project locally. Follow these steps:

1. From the left-side menu, click **RUN CONFIGURATIONS** (the play icon), as shown in Figure 3.47, and click **+** to create a new configuration.

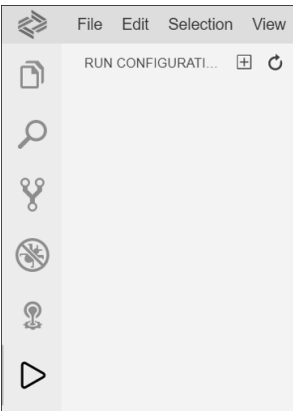


Figure 3.47 Option to Run Project Locally

2. Select the runnable file (HTML) and the SAPUI5 version to be used for this run configuration, as shown in Figure 3.48.

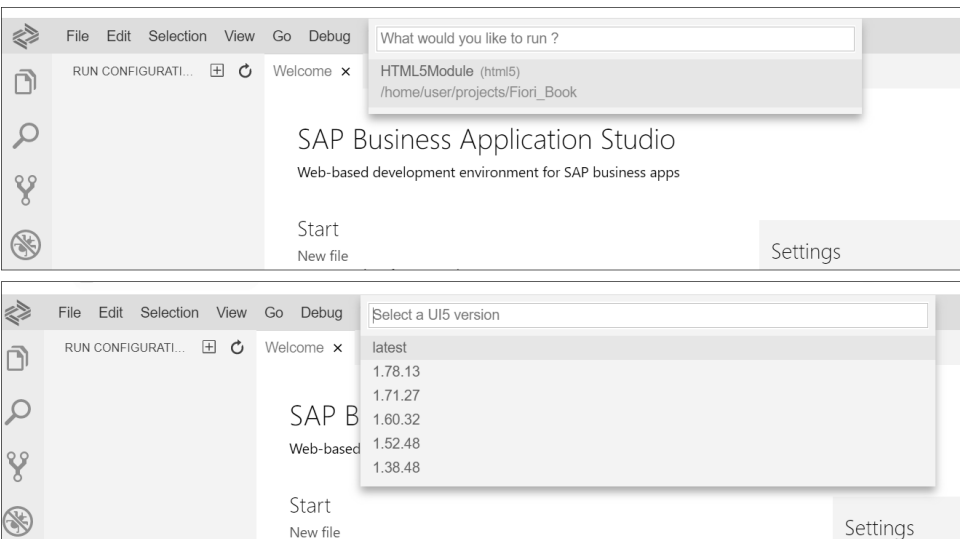


Figure 3.48 Options to Select Configuration to Run Project

3. A configuration tree appears in the **RUN CONFIGURATIONS** view containing the run configurations that were created for the runnable objects. Select the dropdown arrow to display an object's bindable services, as shown in Figure 3.49.

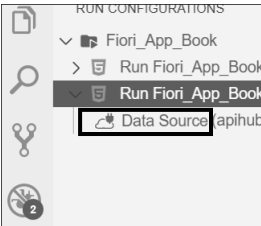


Figure 3.49 Option to Bind Object

4. Click **Bind** to bind the SAP API Business Hub data source.
5. Select the SAP API Business Hub sandbox data source, and enter your login credentials to access the SAP API Business Hub.
6. Click **Run Module** (the green play icon) to run the project, as shown in Figure 3.50.

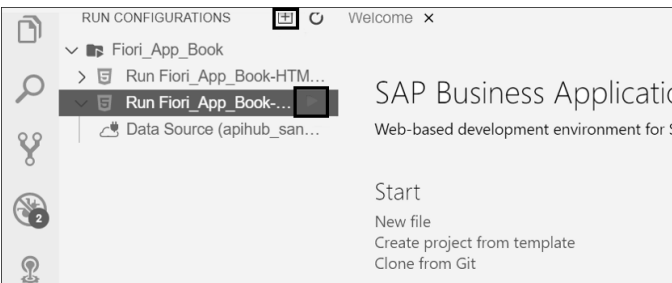


Figure 3.50 Option to Run Project

7. The debug console opens, as shown in Figure 3.51. The run takes place using sandbox data from SAP API Business Hub. These are the sales orders coming in from the SAP API Business Hub sandbox.

Title	
CB9980000065	Description text
CB9980000065	Description text
CB9980000065	Description text
CB9980000065	Description text
CB9980000065	Description text
CB9980000065	Description text

Figure 3.51 Data Coming in from SAP API Business Hub

### 3.3.4    Discovering Integration Packs

SAP API Business Hub is a one-stop shop for all the integrations and APIs from SAP and selected partners. Prepackaged integrations are the key differentiators to kick-start your integration journey. This out-of-the-box prepackaged integration content includes integration flows, mappings of interfaces between SAP and non-SAP applications, adapters, and value mappings and is delivered with SAP Integration Suite; therefore, SAP-to-SAP messages are free of cost with any SAP Integration Suite license if the integration flows have not been modified. Let's consider a scenario in which the currency rate replication model is maintained in the SAP S/4HANA system and this rate has to be replicated to SAP SuccessFactors because the company needs to pay its employee their monthly wages in a different currency.

For this integration scenario, we will use SAP Integration Suite as our integration platform as a service (iPaaS) and the required integration flow, which is available as preconfigured content on the SAP API Business Hub. We'll discuss how to monitor the messages that are processed across SAP Integration Suite. To discover the available integration packs, follow these steps:

1. Navigate to <https://api.sap.com> and search for "SAP S/4HANA Cloud Integration with SAP SuccessFactors Employee Central". This is prepackaged content to replicate the currency exchange rate from SAP S/4HANA to SAP SuccessFactors.
2. Now copy this content to the Cloud Integration tenant. You first need to enable the SAP Integration Suite on a trial basis (refer to Chapter 2, Section 2.3.3) if you haven't already. To do so, navigate to <https://account.hanatrial.ondemand.com/cockpit>.
3. Click **Enter Your Trial Account** and navigate to your trial. Select the **Integration Suite** tile.
4. Click the **Go to Application** link, as shown in Figure 3.52.

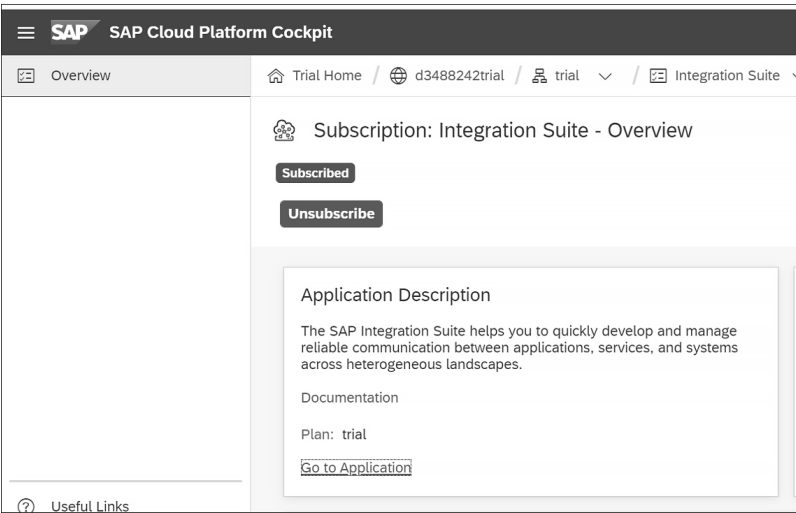


Figure 3.52 Navigate to SAP Integration Suite Application

5. Provide your username and password and click **Log On**, as shown in Figure 3.53.

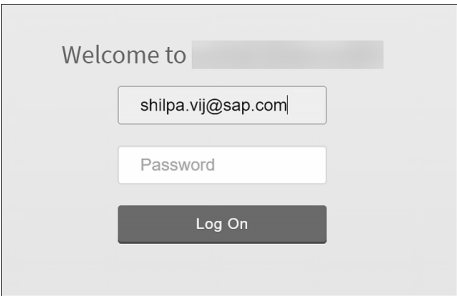


Figure 3.53 User Details Screen and Log On Option

6. Click the **Design, Develop, and Operate Integration Scenarios** tile, as shown in Figure 3.54, which takes you to your Cloud Integration tenant.

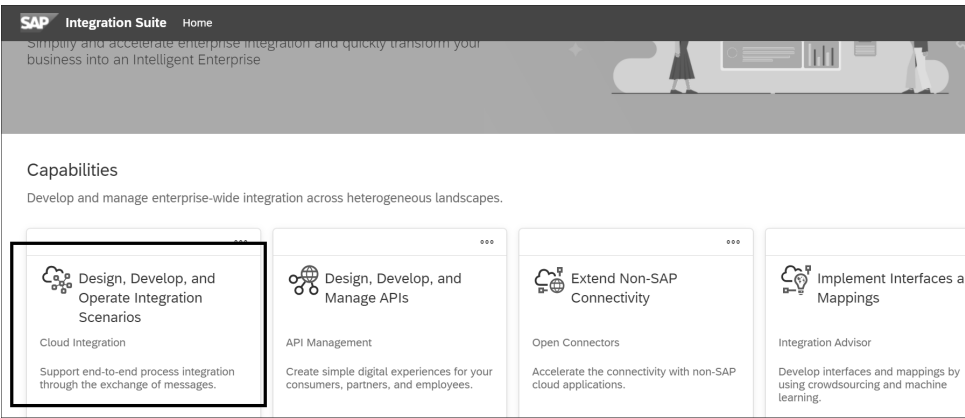


Figure 3.54 Navigate to SAP Integration Suite

7. Search for the prepackaged content, as mentioned previously, and open it, as shown in Figure 3.55.

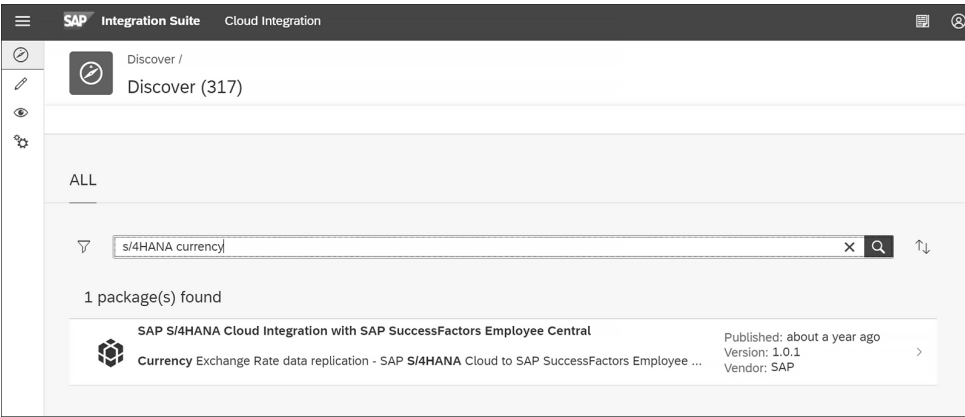


Figure 3.55 Search Options for Prepackaged Content

### 3.3.5 Consuming Integration Content

Prepackaged content can be copied to your workspace and configured based on your needs. Follow these steps:

1. Click the **Copy** button to copy the content to your workspace, as shown in Figure 3.56.

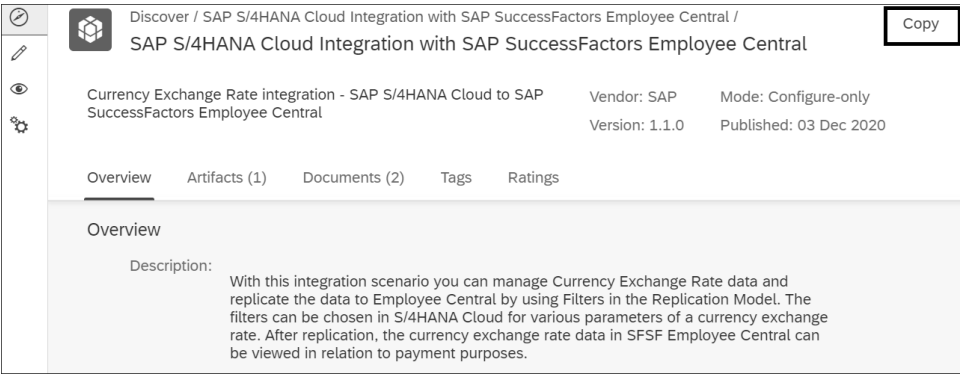


Figure 3.56 Copy Prepackaged Content to Your Tenant

2. Navigate to **Design** (the pencil icon) to configure the endpoints, as shown in Figure 3.57.

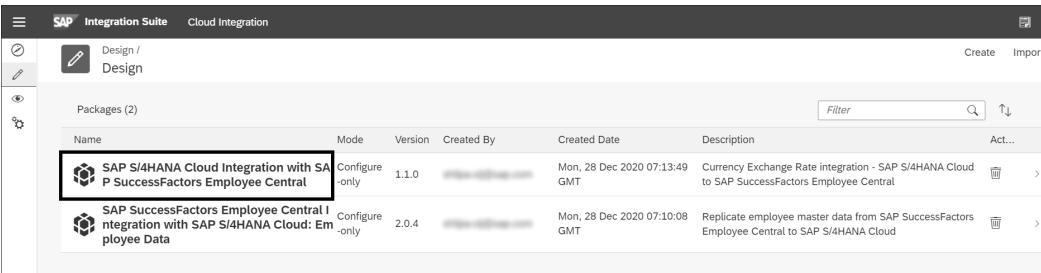


Figure 3.57 Copied Integrations in Design Tab

3. Open the package by clicking it and navigate to the **Artifacts** tab, as shown in Figure 3.58. Select your artifact's checkbox.

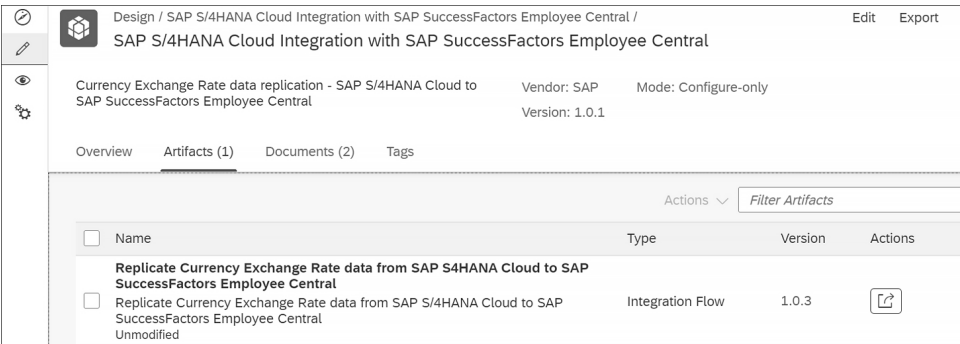


Figure 3.58 Navigate to Artifacts Tab

4. From the **Actions** menu, select **Configure**, as shown in Figure 3.59.

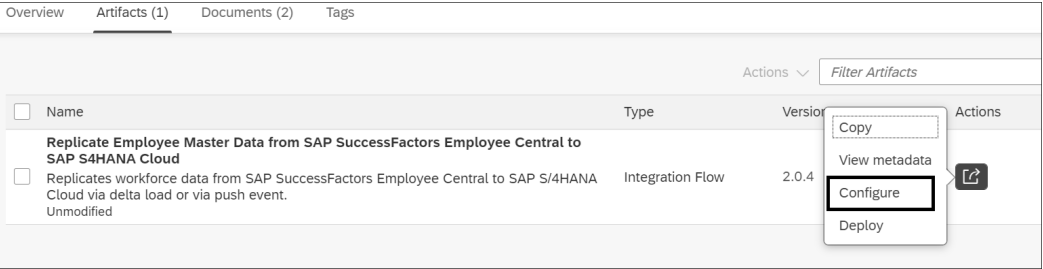


Figure 3.59    Configure Package

5. You can now configure your system starting in the **Sender** tab, as shown in Figure 3.60. Here, since you've selected **Client Certificate** as **Authentication**, you need to import the client certificate. The client certificate can be generated from your SAP passport. SAP passport is a private and public key pair. You need to generate the certificate from it. The simplest method is to import the passport as a key pair in the SAP Integration Suite KeyStore. Once it's imported, click **Download Certificate** to get client certificate. Once it's generated, you can select your client certificate, click **Select**, and browse the certificate from your local system.

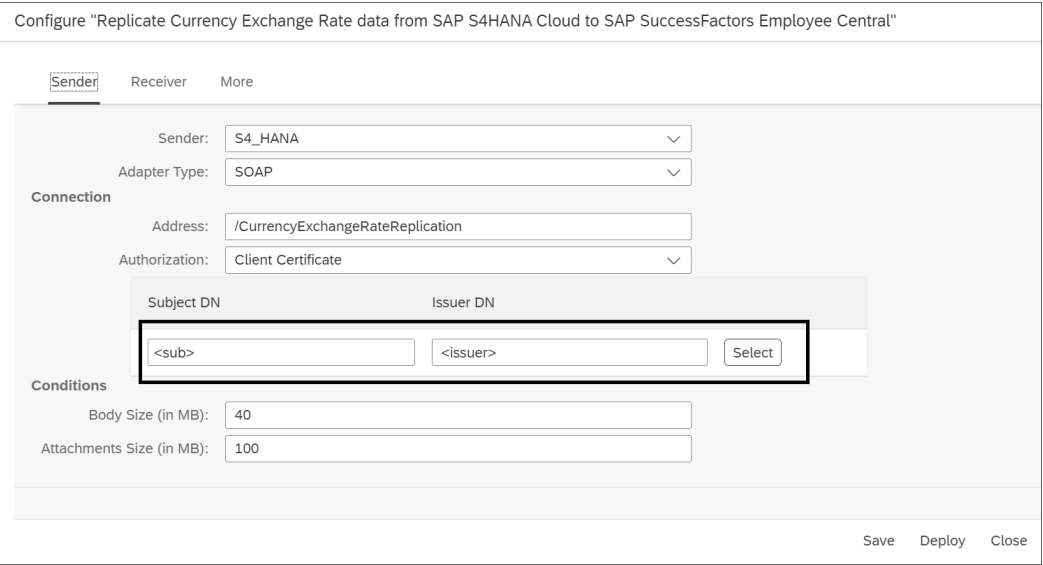


Figure 3.60    Configure Your Sender Parameters

6. Navigate to the **Receiver** tab, as shown in Figure 3.61, and configure your SAP SuccessFactors system by filling in the address of the SAP SuccessFactors system and the credentials, which are deployed on the tenant. When you're done, click **Deploy**.

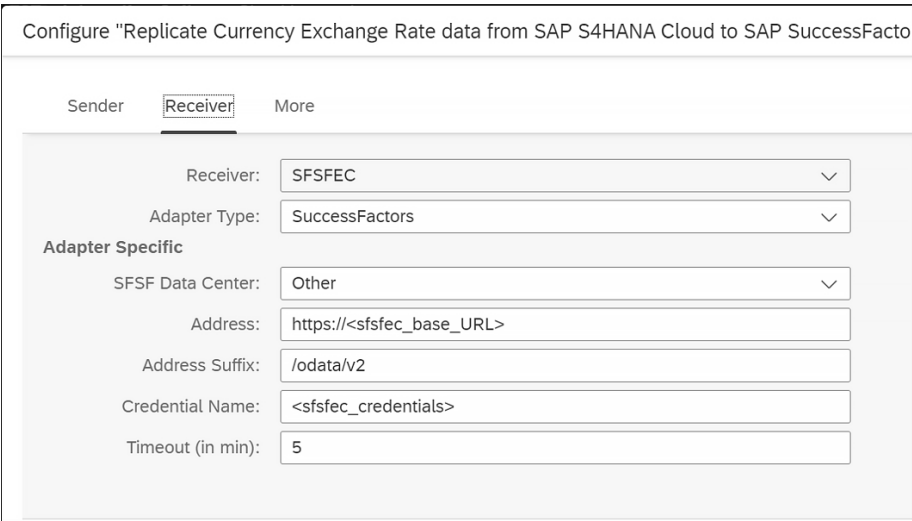


Figure 3.61    Configure Your Receiver Parameters

7. Navigate to **Monitoring** (the eye icon), as shown in Figure 3.62, and check the status. The integration flow should be in a **Started** state.

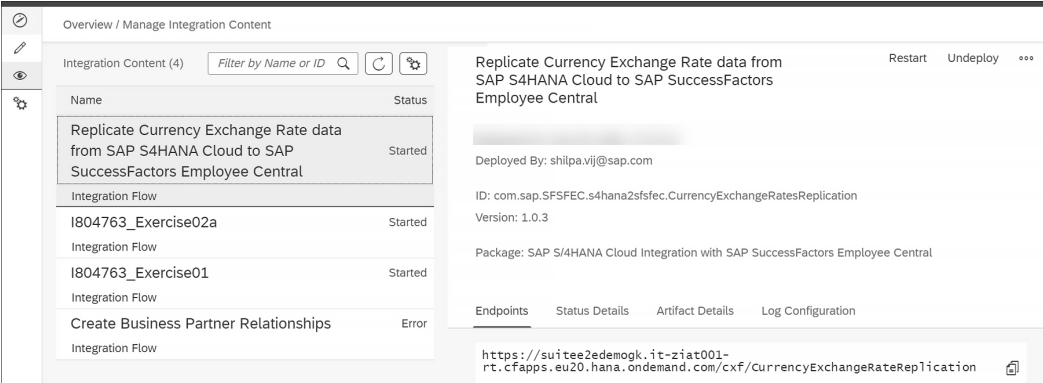


Figure 3.62    Monitoring UI to Check Integration Flow Status

Once the replication is triggered from your SAP S/4HANA system, the configured integration flow will run and replicate the message in the SAP SuccessFactors system. Also, you can see that the message in the monitoring UI will be **Completed**, as shown in Figure 3.63.



Figure 3.63    Integration Flow Status after Message Is Processed Successfully

### 3.4 Partner Onboarding

The SAP API Business Hub provides the foundation that enables digital businesses. From discovering the right APIs for your businesses to building applications for extensions, integration applications, business partners, and government agencies, SAP’s one-stop shop provides the right set of APIs and integrations necessary for companies of all sizes. It has gained immense popularity among many SAP customers. Creating the right strategy, developing innovative business models, and evolving to crack open markets as part of the digital transformation is now quick and easy. As of today, the SAP API Business Hub has more than 3,000 digital artifacts—integration flows, APIs, adapters—across 300-plus packages, with millions of API calls in the SAP API Business Hub sandbox.

To assist with growing requests from partner ecosystems and to provide the skills and knowledge for them to get listed, collaborate with their customers, and monetize via SAP API Business Hub, SAP has been focusing on creating a solid, well-planned foundation for onboarding partners’ digital content. SAP and partners can collaborate throughout the complete framework for publishing digital content on SAP API Business Hub. SAP supports partners through the complete lifecycle (onboarding, enablement, publishing, and monetizing) of their digital content.

Digital content (APIs and integrations) from selected partners is listed on SAP API Business Hub—for example, HERE Location Services, SAP ERP integration with Salesforce, Office 365 Cloud Adapter by Rojo Consultancy, and more.

Follow these steps to onboard partners in order to coinnovate, develop at speed and scale, and engage with like minds (see Figure 3.64):

#### 1. Join the SAP partner program

Developing a long-term successful relationship with partners is very critical in order to provide wider choices by building solutions with SAP or by offering SAP’s solutions to your customers. To obtain this common goal and sustainable competitive advantage, SAP offers the SAP PartnerEdge open ecosystem program. This model allows SAP’s partners to engage with SAP at zero cost and minimal contract obligation. Partners can register for and get access to the SAP partner portal to try out a variety of products, learn and explore trainings, and enable resources. It also provides a deeper and expanded scope through the SAP PartnerEdge open ecosystem specialized partner program. You get access to exclusive enablement offerings, and SAP provides tools that fit well with your needs.

#### 2. Sign the SAP API Business Hub participation agreement

As business moves at an ever-faster pace, SAP wants to help its partners deepen customer relationships and ensure they’re delivering the right solutions. They can do this by signing the partner participation agreement to be listed on SAP API Business Hub, followed by adhering to the set of best practices and guidelines defined by SAP.

#### 3. Provide a sandbox for APIs and follow SAP Best Practices and guidelines

Partners have to provide a testing environment for each of their APIs that are planned to be listed on SAP API Business Hub. Once you develop your APIs in the OpenAPI 2.0 or OpenAPI 3.0 format and make sure the APIs’ packages follow the guidelines to be published, you can now submit the packages for review and get a quality score. This score determines the extent to which your package adheres to the guidelines.

#### 4. Certify your content via SAP Integration and Certification Center

Once partners decide to transform customer businesses by providing best-quality coinnovation, certification, and technical services, they can join the SAP Integration and Certification Center program (<https://www.sap.com/partner/certify-my-solution.html>). This helps them to certify their business APIs and get an “SAP Certified” logo. API packages will also be listed as “SAP Certified” content on SAP API Business Hub. For integration packages, SAP Integration and Certification Center already supports certification scenarios, and these are already available on SAP API Business Hub.

#### 5. Publish to SAP API Business Hub

Publishing digital content on SAP API Business Hub can be visualized in four steps:

- *Evaluate*: This phase involves validating the solution blueprint and use case and making sure it aligns with SAP’s strategy.
- *Legal/admin*: This phase involves signing the partnership and getting the contract status.
- *Curate*: In this phase, the quality of the content is checked to ensure that it follows the guidelines.
- *Value add*: If there is a change in content after a few months or years, SAP helps to manage the patches and, last but not least, gives tips and tricks to develop new use cases.

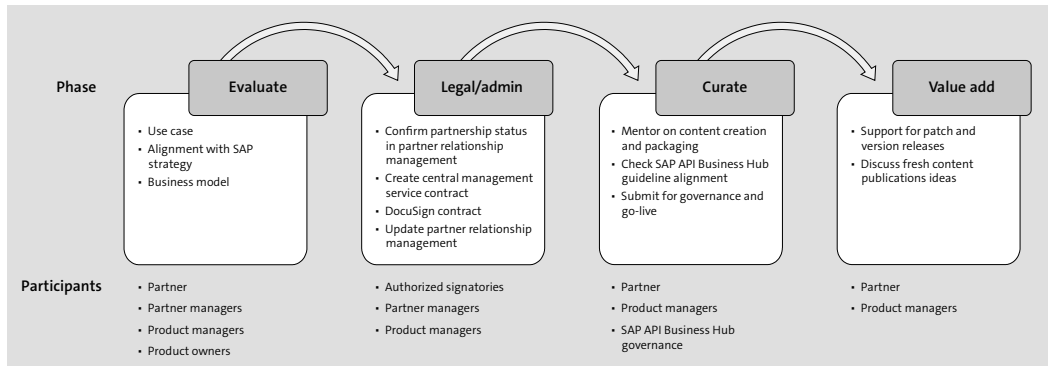


Figure 3.64 Phases of Publishing on SAP API Business Hub

**6. Engage with your consumers**

Digital content published by partners can be consumed from SAP API Business Hub free of charge. The complete “launch to decommission” integration lifecycle can be managed via SAP API Business Hub.

**7. Sell via SAP App Center**

Partners can choose to monetize their apps via the SAP App Center, while API/integration packages can be consumed from SAP API Business Hub.

### **3.5 Summary**

In this chapter, you learned about the central catalog of digital content offered to SAP users by SAP and its selected partners. We focused on the significant value companies get from the out-of-the-box, predelivered content available on SAP API Business Hub. You can quickly build apps and extensions; integrate applications, business partners, and government agencies; and transform your business. You learned how to simplify and accelerate your integration journey by discovering, exploring, testing, and consuming different kinds of digital content bundled into logical packages on SAP API Business Hub. You can leverage high-touch and low-touch enablement through the vibrant community on SAP API Business Hub. As an application developer, you can build SAP Fiori applications, as detailed in this chapter, using predelivered APIs. Further, as an integration expert, you can configure predelivered integrations as described herein in your Cloud Integration tenant of SAP Integration Suite.

To help the partner ecosystem with digital transformation and move businesses at an ever-faster pace, partners can deepen their customer relationships and ensure they’re delivering innovative solutions based on their customers’ needs through deep partner engagement programs offered by SAP on SAP API Business Hub.

In the next chapter, we’ll move on to discuss the API-led approach to hybrid integration.

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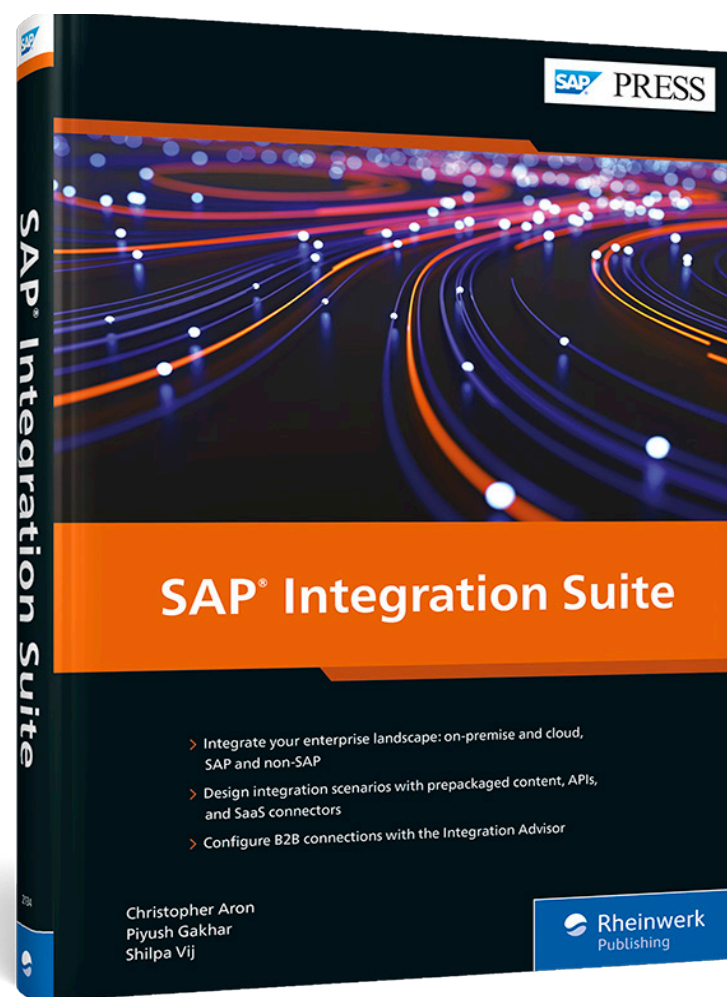
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Christopher Aron, Piyush Gakhar, Shilpa Vij

## SAP Integration Suite

343 Pages, 2021, \$79.95

ISBN 978-1-4932-2134-9

 [www.sap-press.com/5326](https://www.sap-press.com/5326)



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