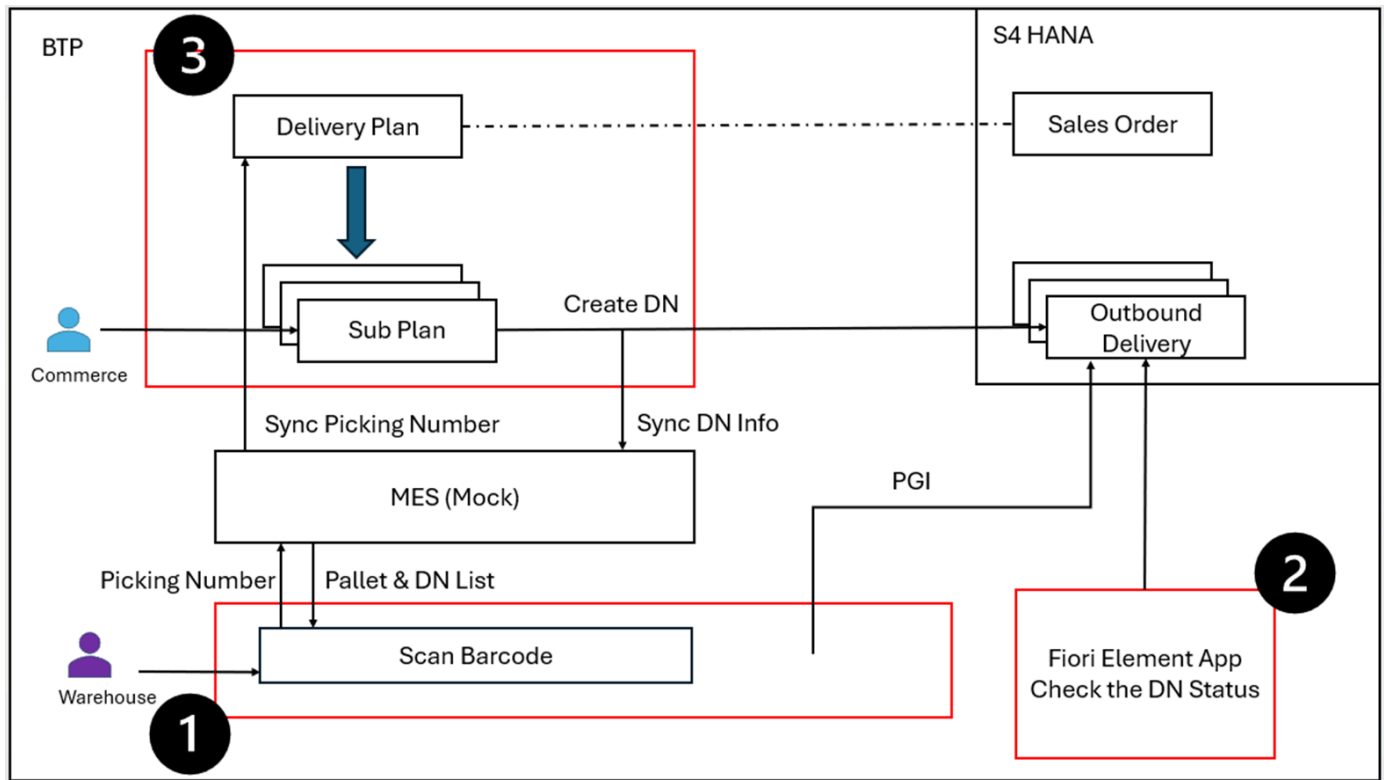


# SAP Build Code Workshop

## Business Overview



Firstly, Scene 3 - Create Delivery Plan for create delivery note in batch

Secondly, Scene 2 - List Created Outbound Delivery

Thirdly, Scene 1 - Scan the barcode, trigger PGI for DN under specific picking number

## Scene 0 - Prerequisite

### 0.1 Check the Subscription

SAP Build Code

SAP HANA Cloud

SAP Business Application Studio

Overview

Services

Service Marketplace

Instances and Subscrip...

Cloud Foundry

Spaces

Space Quotas

Org Members

HTML5 Applications

Connectivity

Destinations

Destinations (BETA)

Destination Certificates

Destination Trust

Cloud Connectors

Security

Users

ADAChinese

SAP Build Testing

Subaccount: SAP Build Testing - Instances and Subscriptions

All: 21

Create

Service: Plan: Status:

Search

All

All

All

Subscriptions (7) Instances (13) Environments (1)

Applications to which your subaccount is currently subscribed

Application	Plan	Changed On	Status	
SAP Build Code	standard	4 Mar 2025	Subscribed	...
Joule	standard	9 Mar 2025	Subscribed	...
SAP HANA Cloud	tools	13 Mar 2025	Subscribed	...
SAP Build Process Automation	standard	4 Mar 2025	Subscribed	...
SAP Build Apps	standard	4 Mar 2025	Subscribed	...
SAP Business Application Studio	build-code	4 Mar 2025	Subscribed	...
SAP Build Work Zone, standard edition	standard	4 Mar 2025	Subscribed	...

0.2 HANA DN Instance Create and Configuration

1 Type

1. Type

Choose the type of a SAP HANA Cloud instance.

SAP HANA Cloud, SAP HANA Database

(Cloned) SAP HANA Cloud, SAP HANA Database

SAP HANA Cloud, SAP HANA Database

SAP HANA Cloud, SAP HANA Database provides an in-memory and multi-model database system to store and analyze relational but also document data which allows for real-time data analytics and transactional processing in one combined system.

- In-memory database system
- Multi-model storage & processing engines
- Suitable for OLAP and OLTP workloads
- Hybrid Extension to on-premise SAP HANA systems
- Associated with a data lake instance

Runtime Environment

Other Environments

Next Step Cancel

Allow all IP

Connections

Connections

You can choose to only allow access to the instance from Business Technology Platform (BTP) which is the default, allow all access, or only from trusted IP addresses by specifying IP address filter ranges.

Allowed connections: \*

Allow only IP addresses from Cloud Foundry in this BTP region

Allow all IP addresses

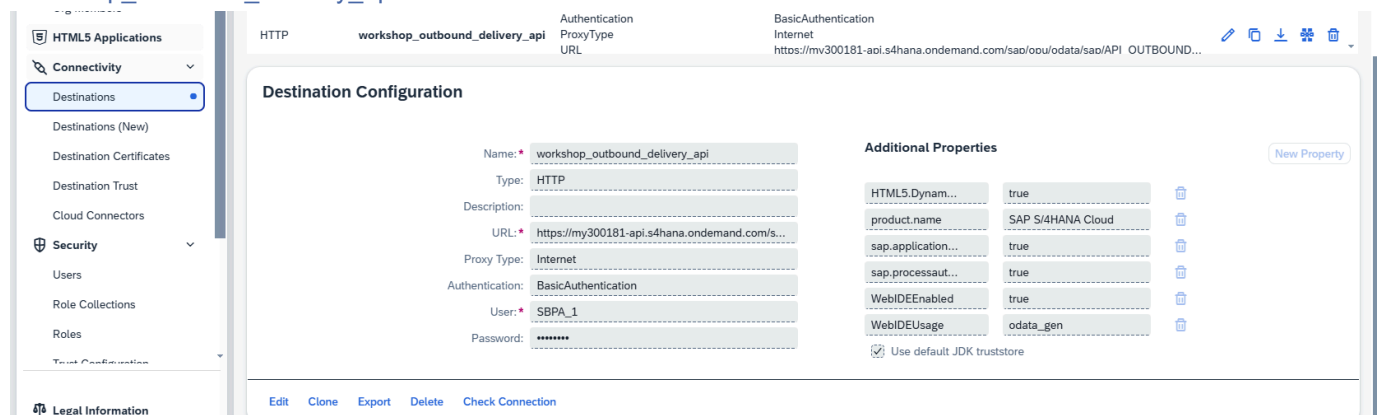
Allow specific IP addresses and IP ranges (in addition to Cloud Foundry in BTP)

Use Default for other setting

## 0.3 Define Destination in Sub Account for connection to S4

Add following 2 destination, password will be provided in chat.

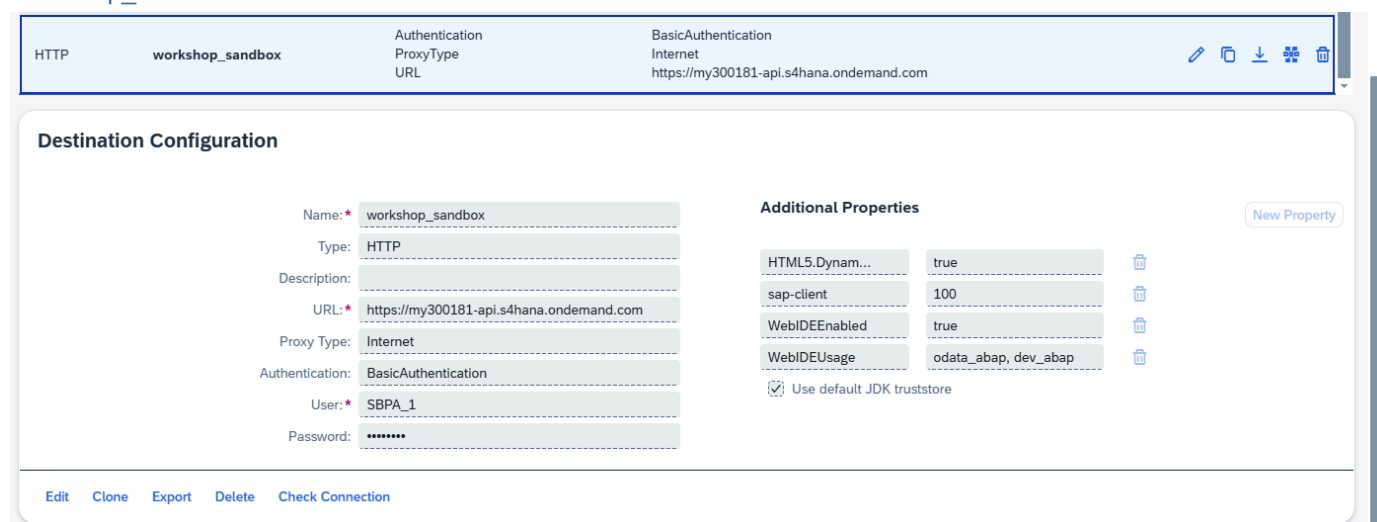
### workshop\_outbound\_delivery\_api



The screenshot shows the SAP Cloud Connector interface for configuring a destination named 'workshop\_outbound\_delivery\_api'. The left sidebar contains a navigation menu with 'Destinations' selected. The main area displays the 'Destination Configuration' form. The 'Name' field is 'workshop\_outbound\_delivery\_api'. The 'Type' is 'HTTP'. The 'URL' is 'https://my300181-api.s4hana.ondemand.com/s...'. The 'Proxy Type' is 'Internet'. The 'Authentication' is 'BasicAuthentication'. The 'User' is 'SBPA\_1' and the 'Password' is masked with asterisks. The 'Additional Properties' section includes 'HTML5.Dynam...' (true), 'product.name' (SAP S/4HANA Cloud), 'sap.application...' (true), 'sap.processaut...' (true), 'WebIDEEnabled' (true), and 'WebIDEUsage' (odata\_gen). A 'Use default JDK truststore' checkbox is checked. At the bottom, there are buttons for 'Edit', 'Clone', 'Export', 'Delete', and 'Check Connection'.

Property	Value
HTML5.Dynam...	true
product.name	SAP S/4HANA Cloud
sap.application...	true
sap.processaut...	true
WebIDEEnabled	true
WebIDEUsage	odata_gen

### workshop\_sandbox



The screenshot shows the SAP Cloud Connector interface for configuring a destination named 'workshop\_sandbox'. The left sidebar contains a navigation menu with 'Destinations' selected. The main area displays the 'Destination Configuration' form. The 'Name' field is 'workshop\_sandbox'. The 'Type' is 'HTTP'. The 'URL' is 'https://my300181-api.s4hana.ondemand.com'. The 'Proxy Type' is 'Internet'. The 'Authentication' is 'BasicAuthentication'. The 'User' is 'SBPA\_1' and the 'Password' is masked with asterisks. The 'Additional Properties' section includes 'HTML5.Dynam...' (true), 'sap-client' (100), 'WebIDEEnabled' (true), and 'WebIDEUsage' (odata\_abap, dev\_abap). A 'Use default JDK truststore' checkbox is checked. At the bottom, there are buttons for 'Edit', 'Clone', 'Export', 'Delete', and 'Check Connection'.

Property	Value
HTML5.Dynam...	true
sap-client	100
WebIDEEnabled	true
WebIDEUsage	odata_abap, dev_abap

## 0.4 Postman may help with testing~

## 0.5 Used Backend Service

### 0.5.1 Mock MES system: Manage Pick-PalletList-DNList

Get All pickNumber

GET <https://pickMock-fantastic-platypus-sj.cfapps.us10-002.hana.ondemand.com/picks>

Request:

None

Response:

```
{
  "pickNumbers": [
    "2000100001",
    "2000100002",
    "2000100003",
    "2000100004",
    "2000100005",
    "2000100006",
    "2000100007",
    "2000100008",
    "2000100009",
    "2000100010",
    "2000100011",
    "2000100012"
  ]
}
```

### Get Specific pick Data

**GET** <https://pickMock-fantastic-platypus-sj.cfapps.us10-002.hana.ondemand.com/picks/{PickNumber}>

Request:

None

Response:

```
{
  "DNList": [
    {
      "DNNumber": "0028880903"
    },
    {
      "DNNumber": "6789231453"
    }
  ],
  "palletList": [
    {
      "palletID": "0000050005"
    },
    {
      "palletID": "0000050006"
    }
  ],
  "pickNumber": "2000100003"
}
```

### Create Pick with DN List

**POST** <https://pickMock-fantastic-platypus-sj.cfapps.us10-002.hana.ondemand.com/picks>

Request

```
{
  "DNList": [
    "XXXXXXXXXX"
  ]
}
```

## Response

```
{
  "pickNumber": "2000100013"
}
```

## 0.5.2 Delivery Document OData

### Create DN

#### Post Request

```
{
  "to_DeliveryDocumentItem": {
    "results": [
      {
        "ReferenceSDDocument": "447793",
        "ReferenceSDDocumentItem": "10",
        "ActualDeliveryQuantity": "1",
        "DeliveryQuantityUnit": "PC"
      }
    ]
  }
}
```

## Response

```
<?xml version="1.0" encoding="utf-8"?>
<entry m:etag="W/&quot;'0001'&quot;;" xml:base="https://my300181-api.s4hana.ondemand.com/sap/opu/odata/sap/API_0
  <id>https://my300181-api.s4hana.ondemand.com/sap/opu/odata/sap/API_OUTBOUND_DELIVERY_SRV;v=0002/A_OutbDeliv
  <title type="text">A_OutbDeliveryHeader('80415443')</title>
  <updated>2025-03-25T09:55:58Z</updated>
  <category term="API_OUTBOUND_DELIVERY_SRV.A_OutbDeliveryHeaderType" scheme="http://schemas.microsoft.com/ad
  <link href="A_OutbDeliveryHeader('80415443')" rel="edit" title="A_OutbDeliveryHeaderType"/>
  <link href="A_OutbDeliveryHeader('80415443')/to_DeliveryDocumentText" rel="http://schemas.microsoft.com/ado
  <link href="A_OutbDeliveryHeader('80415443')/to_HandlingUnitHeaderDelivery" rel="http://schemas.microsoft.c
  <link href="A_OutbDeliveryHeader('80415443')/to_DeliveryDocumentPartner" rel="http://schemas.microsoft.com/
  <link href="A_OutbDeliveryHeader('80415443')/to_DeliveryDocumentItem" rel="http://schemas.microsoft.com/ado
    <m:inline>
      <feed xml:base="https://my300181-api.s4hana.ondemand.com/sap/opu/odata/sap/API_OUTBOUND_DELIVERY_SR
        <id>https://my300181-api.s4hana.ondemand.com/sap/opu/odata/sap/API_OUTBOUND_DELIVERY_SRV;v=0002
        <title type="text">A_OutbDeliveryItem</title>
        <updated>2025-03-25T09:55:58Z</updated>
        <author>
          <name/>
        </author>
        <link href="A_OutbDeliveryHeader('80415443')/to_DeliveryDocumentItem" rel="self" title="A_OutbD
```

```

    </feed>
  </m:inline>
</link>
<content type="application/xml">
  <m:properties>
    <d:ActualDeliveryRoute/>
    <d:Shippinglocationtimezone>CET</d:Shippinglocationtimezone>
    <d:ActualGoodsMovementDate m:null="true"/>
    <d:Receivinglocationtimezone>EST</d:Receivinglocationtimezone>
    <d:ActualGoodsMovementTime>PT00H00M00S</d:ActualGoodsMovementTime>
    <d:BillingDocumentDate>2025-04-30T00:00:00</d:BillingDocumentDate>
    <d:BillOfLading/>
    <d:CompleteDeliveryIsDefined>false</d:CompleteDeliveryIsDefined>
    <d:ConfirmationTime>PT00H00M00S</d:ConfirmationTime>
    <d:CreatedByUser>CC0000000115</d:CreatedByUser>
    <d:CreationDate>2025-03-25T00:00:00</d:CreationDate>
    <d:CreationTime>PT09H55M56S</d:CreationTime>
    <d:CustomerGroup>Z1</d:CustomerGroup>
    <d:DeliveryBlockReason/>
    <d:DeliveryDate>2025-04-30T00:00:00</d:DeliveryDate>
    <d:DeliveryDocument>80415443</d:DeliveryDocument>
    <d:DeliveryDocumentBySupplier/>
    <d:DeliveryDocumentType>LF</d:DeliveryDocumentType>
    <d:DeliveryIsInPlant>false</d:DeliveryIsInPlant>
    <d:DeliveryPriority>02</d:DeliveryPriority>
    <d:DeliveryTime>PT04H00M00S</d:DeliveryTime>
    <d:DeliveryVersion>0001</d:DeliveryVersion>
    <d:DepreciationPercentage>0.00</d:DepreciationPercentage>
    <d:DistrStatusByDecentralizedWrhs/>
    <d:DocumentDate>2025-03-25T00:00:00</d:DocumentDate>
    <d:ExternalIdentificationType/>
    <d:ExternalTransportSystem/>
    <d:FactoryCalendarByCustomer/>
    <d:GoodsIssueOrReceiptSlipNumber/>
    <d:GoodsIssueTime>PT22H00M00S</d:GoodsIssueTime>
    <d:HandlingUnitInStock/>
    <d:HdrGeneralIncompletionStatus>C</d:HdrGeneralIncompletionStatus>
    <d:HdrGoodsMvtIncompletionStatus>C</d:HdrGoodsMvtIncompletionStatus>
    <d:HeaderBillgIncompletionStatus>C</d:HeaderBillgIncompletionStatus>
    <d:HeaderBillingBlockReason/>
    <d:HeaderDelivIncompletionStatus>C</d:HeaderDelivIncompletionStatus>
    <d:HeaderGrossWeight>12.700</d:HeaderGrossWeight>
    <d:HeaderNetWeight>10.700</d:HeaderNetWeight>
    <d:HeaderPackingIncompletionSts>C</d:HeaderPackingIncompletionSts>
    <d:HeaderPickgIncompletionStatus>C</d:HeaderPickgIncompletionStatus>
    <d:HeaderVolume>0.000</d:HeaderVolume>
    <d:HeaderVolumeUnit/>
    <d:HeaderWeightUnit>KG</d:HeaderWeightUnit>
    <d:IncotermsClassification>CFR</d:IncotermsClassification>
    <d:IncotermsTransferLocation>Costs & Freight</d:IncotermsTransferLocation>
    <d:IntercompanyBillingDate m:null="true"/>
    <d:InternalFinancialDocument/>
    <d:IsDeliveryForSingleWarehouse/>
    <d:IsExportDelivery>X</d:IsExportDelivery>
    <d:LastChangeDate m:null="true"/>
    <d:LastChangedByUser/>
    <d>LoadingDate>2025-04-28T00:00:00</d>LoadingDate>
    <d>LoadingPoint/>
    <d>LoadingTime>PT22H00M00S</d>LoadingTime>
    <d:MeansOfTransport/>
    <d:MeansOfTransportRefMaterial/>
  </m:properties>
</content>

```

```

<d:MeansOfTransportType/>
<d:OrderCombinationIsAllowed>true</d:OrderCombinationIsAllowed>
<d:OrderID/>
<d:OverallDelivConfStatus/>
<d:OverallDelivReltdBillgStatus>A</d:OverallDelivReltdBillgStatus>
<d:OverallGoodsMovementStatus>A</d:OverallGoodsMovementStatus>
<d:OverallIntcoBillingStatus/>
<d:OverallPackingStatus/>
<d:OverallPickingConfStatus/>
<d:OverallPickingStatus>A</d:OverallPickingStatus>
<d:OverallProofOfDeliveryStatus/>
<d:OverallSDProcessStatus>A</d:OverallSDProcessStatus>
<d:OverallWarehouseActivityStatus/>
<d:Ovr1ItmDelivIncompletionSts>C</d:Ovr1ItmDelivIncompletionSts>
<d:Ovr1ItmGdsMvtIncompletionSts>C</d:Ovr1ItmGdsMvtIncompletionSts>
<d:Ovr1ItmGenvtIncompletionSts>C</d:Ovr1ItmGeneralIncompletionSts>
<d:Ovr1ItmPackingIncompletionSts>C</d:Ovr1ItmPackingIncompletionSts>
<d:Ovr1ItmPickingIncompletionSts>C</d:Ovr1ItmPickingIncompletionSts>
<d:PaymentGuaranteeProcedure/>
<d:PickedItemsLocation/>
<d:PickingDate>2025-04-23T00:00:00</d:PickingDate>
<d:PickingTime>PT22H00M00S</d:PickingTime>
<d:PlannedGoodsIssueDate>2025-04-29T00:00:00</d:PlannedGoodsIssueDate>
<d:ProofOfDeliveryDate m:null="true"/>
<d:ProposedDeliveryRoute/>
<d:ReceivingPlant/>
<d:RouteSchedule/>
<d:SalesDistrict/>
<d:SalesOffice/>
<d:SalesOrganization>DEC1</d:SalesOrganization>
<d:SDDocumentCategory>J</d:SDDocumentCategory>
<d:ShipmentBlockReason/>
<d:ShippingCondition>01</d:ShippingCondition>
<d:ShippingPoint>DEC1</d:ShippingPoint>
<d:ShippingType/>
<d:ShipToParty>USCU_SC04</d:ShipToParty>
<d:SoldToParty>USCU_SC04</d:SoldToParty>
<d:SpecialProcessingCode/>
<d:StatisticsCurrency>EUR</d:StatisticsCurrency>
<d:Supplier/>
<d>TotalBlockStatus/>
<d>TotalCreditCheckStatus/>
<d>TotalNumberOfPackage>00000</d>TotalNumberOfPackage>
<d>TransactionCurrency>EUR</d>TransactionCurrency>
<d>TransportationGroup>0001</d>TransportationGroup>
<d>TransportationPlanningDate>2025-04-28T00:00:00</d>TransportationPlanningDate>
<d>TransportationPlanningStatus/>
<d>TransportationPlanningTime>PT22H00M00S</d>TransportationPlanningTime>
<d>UnloadingPointName/>
<d>Warehouse/>
<d>WarehouseGate/>
<d>WarehouseStagingArea/>
</m:properties>
</content>
</entry>

```

POST <https://my300181->

[api.s4hana.ondemand.com/sap/opu/odata/sap/API\\_OUTBOUND\\_DELIVERY\\_SRV;v=0002/PostGoodsIssue?DeliveryDocument='{DNNumber}'](https://api.s4hana.ondemand.com/sap/opu/odata/sap/API_OUTBOUND_DELIVERY_SRV;v=0002/PostGoodsIssue?DeliveryDocument='{DNNumber}')

Request

None

Response

## Scene 1 - Create Scan Page with UI5 Freestyle

### 1.1 Create Project

-> Enter SAP Build Lobby

-> Click Create

-> Build an Application -> SAP Build Code -> SAP Fiori Application

The screenshot shows the SAP Build interface with a modal dialog titled "Create an SAP Fiori project". The dialog has a heading "Give your project a name". It contains the following fields and options:

- Project Name:** A text input field containing "scan\_app", highlighted with a red border.
- Description:** An empty text input field.
- Dev Space:** A dropdown menu with two options: "New" (radio button) and "Existing" (radio button, selected). The "Existing" option has a dropdown menu showing "SAP\_Fiori".

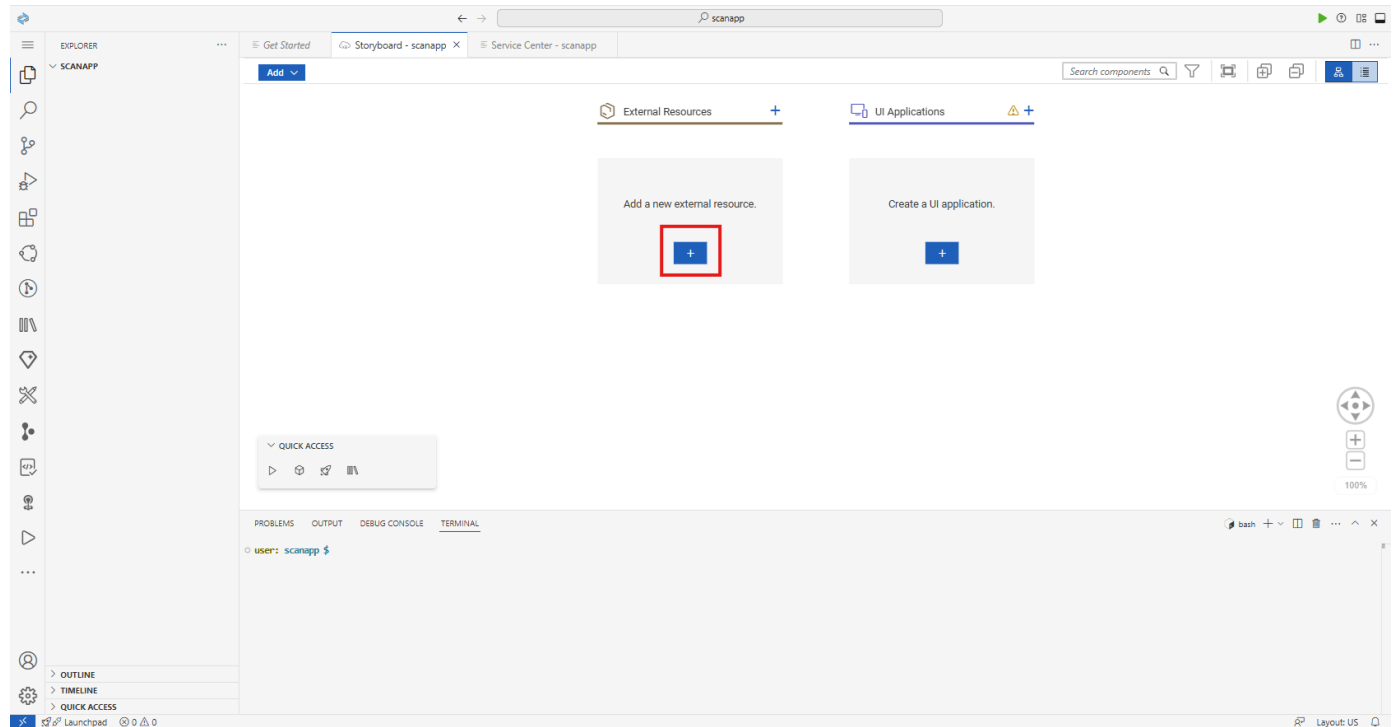
Below the dropdown, there is a note: "You can run up to two dev spaces at a time. For more options, go to the [Dev Space Manager](#)".

At the bottom of the dialog, there are three buttons: "Back", "Create" (highlighted with a red border), and "Cancel".

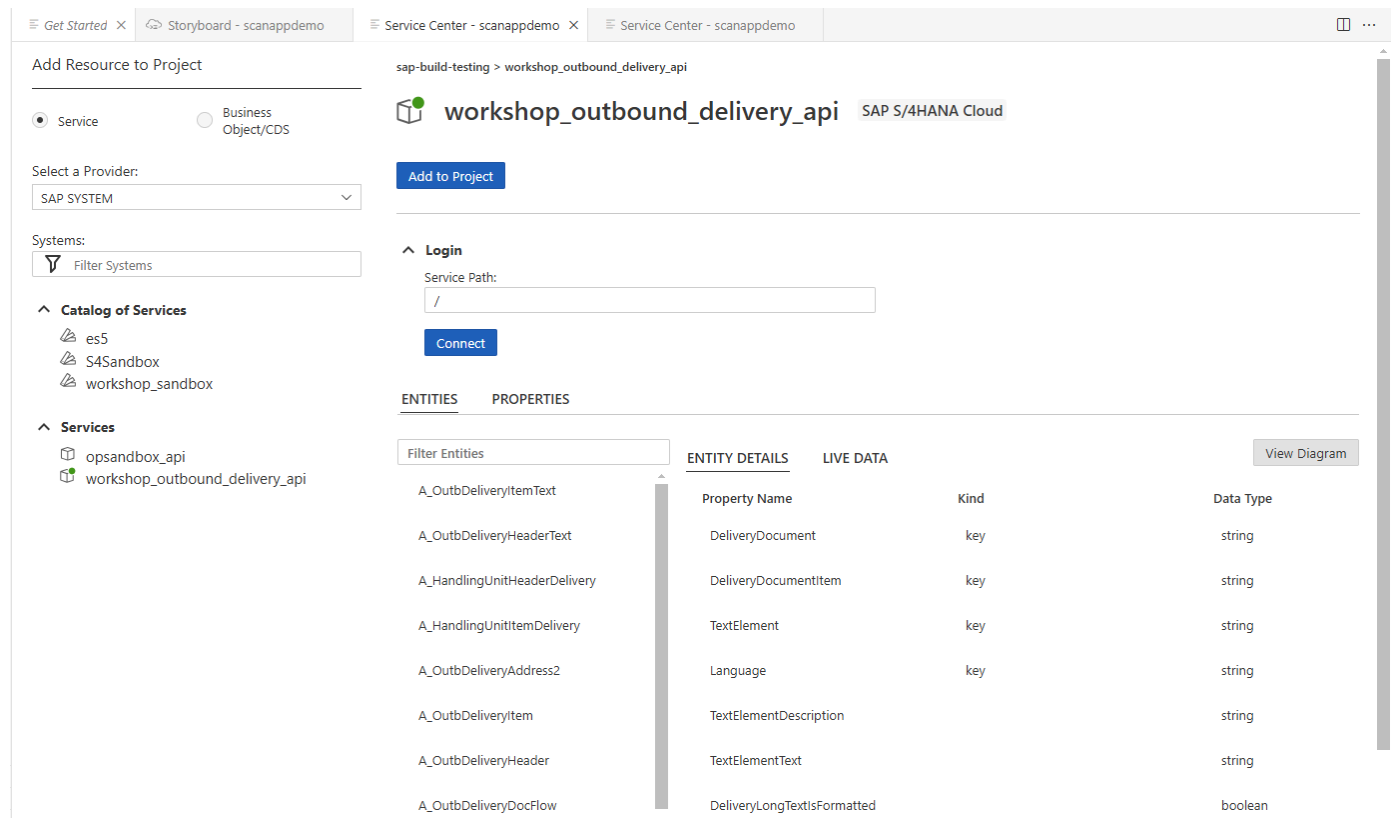
### 1.2 Insert External Service



## Add External Resource

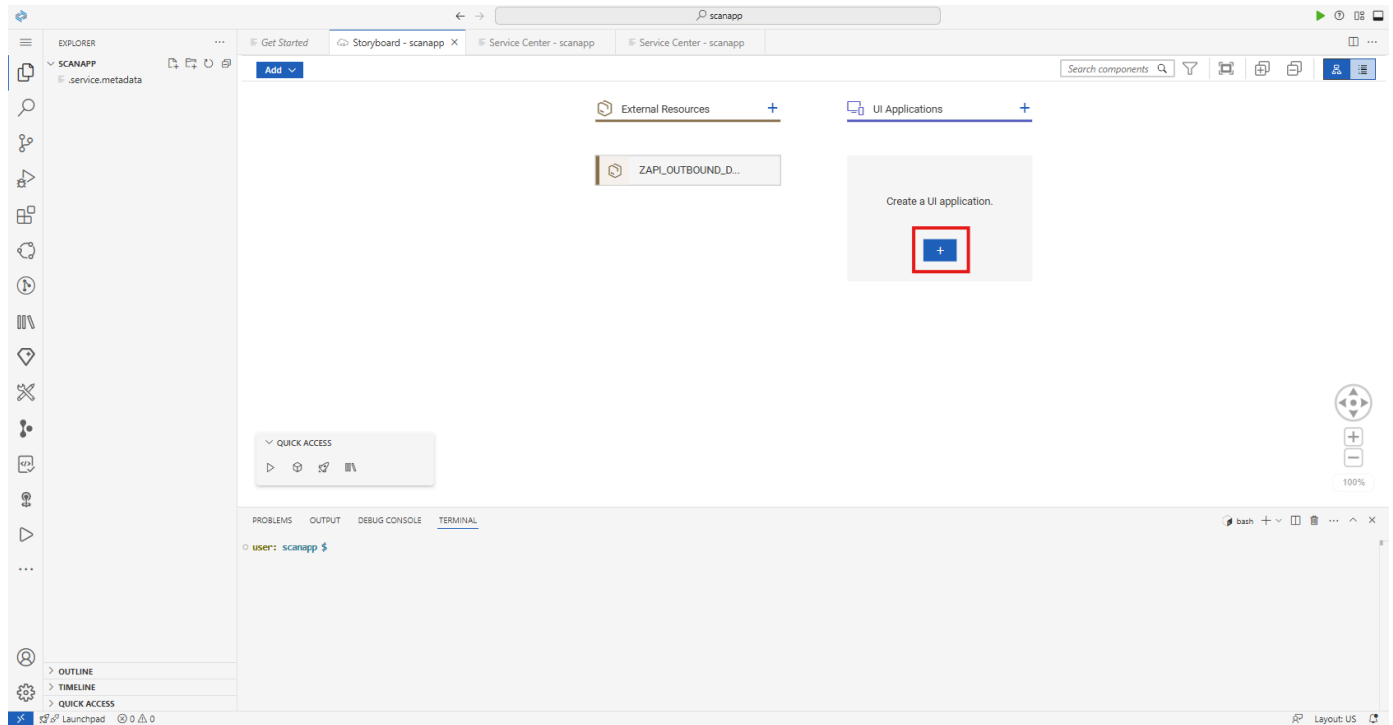


## Select Service

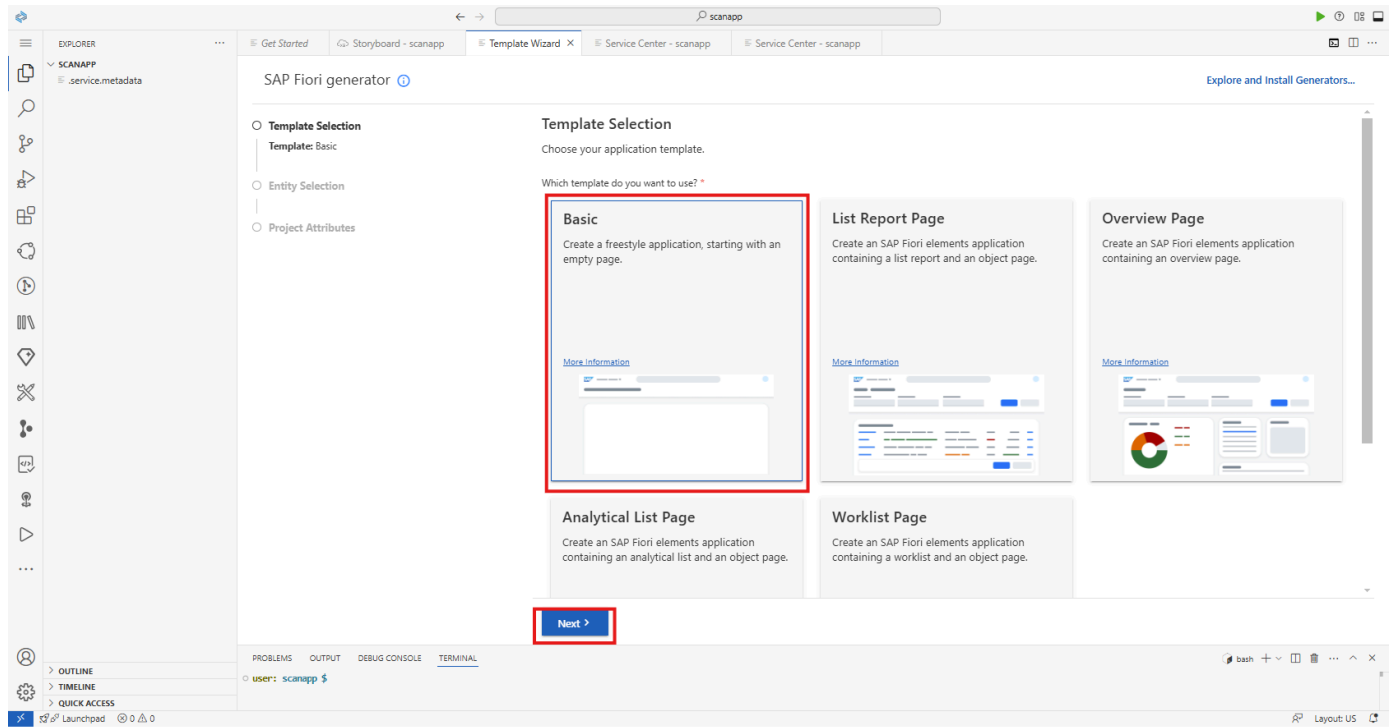


## 1.3 Insert UI Page

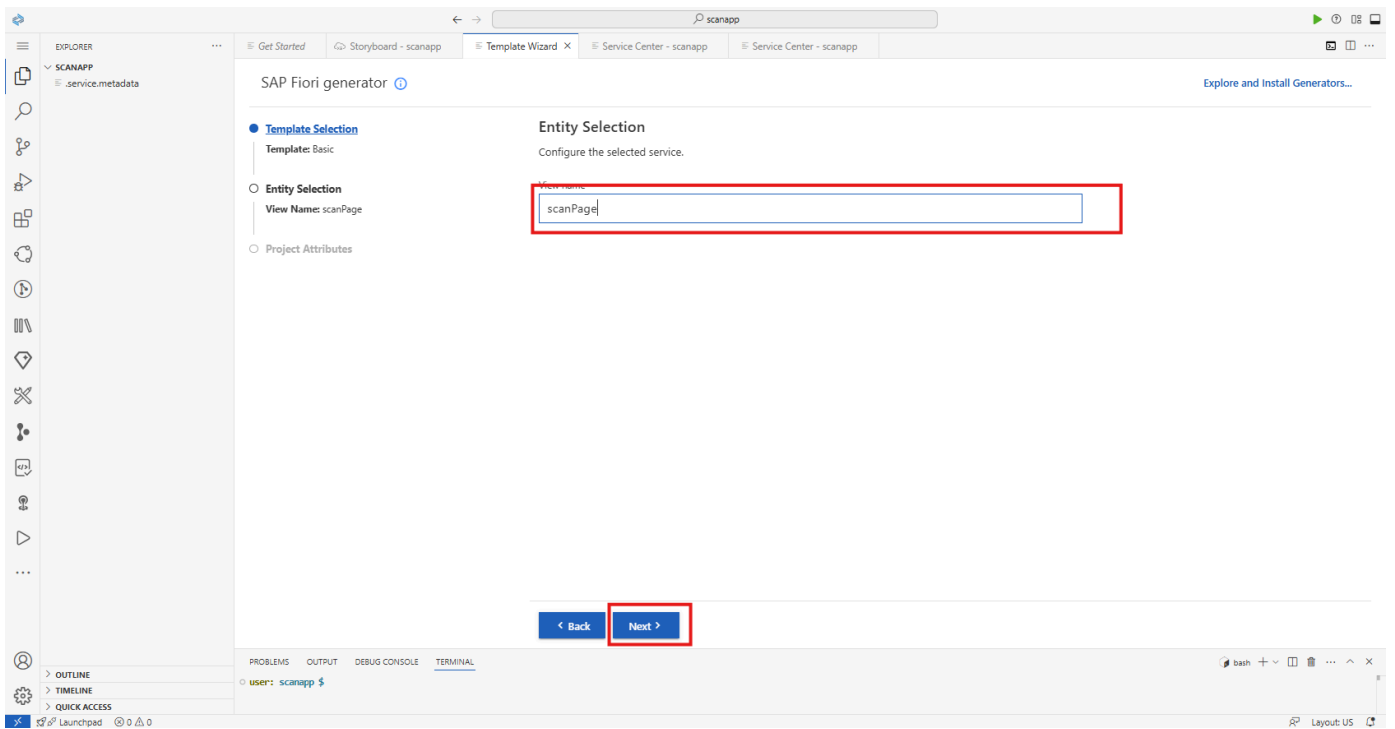
## Create UI



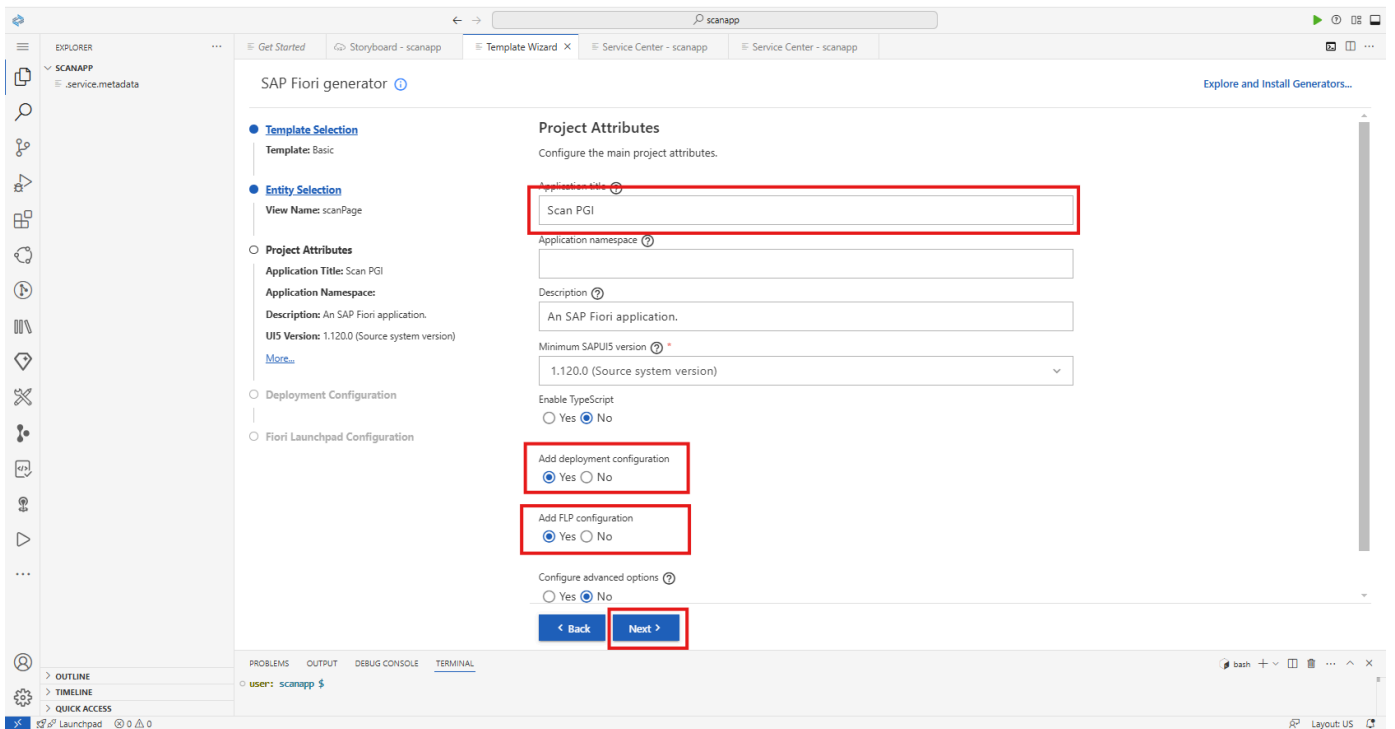
## Use Basic Template



## Create Scan View



## Configure the Project Attribute



## Deploy Configuration

SAP Fiori generator [?](#)

[Explore and Install Generators...](#)

### ● [Template Selection](#)

Template: Basic

### ● [Entity Selection](#)

View Name: scanPage

### ● [Project Attributes](#)

Application Title: Scan PGI

Application Namespace:

Description: An SAP Fiori application.

UI5 Version: 1.130.7 (Source system version)

[More...](#)

### ○ [Deployment Configuration](#)

Target Type: Cloud Foundry

Destination Name: workshop\_outbound\_delivery\_api  
- https://my300181-api.s4hana.ondemand.com/sap/opu/odata/sap/API\_OUTBOUND\_DELIVERY\_SRV?v=0002

Add To Router: Yes

[More...](#)

## Deployment Configuration

Configure deployment settings

Please choose the target \*

Cloud Foundry

Destination name \*

workshop\_outbound\_delivery\_api - https://my300181-api.s4hana.ondemand.co...

Add application to managed application router?

☒ Yes ☐ No

## 1.3 Open Joule Chat

The screenshot displays the SAP Fiori generator's Deployment Configuration section. The 'Target Type' is set to 'Cloud Foundry'. The 'Destination Name' is 'workshop\_outbound\_delivery\_api' with the URL 'https://my300181-api.s4hana.ondemand.com/sap/opu/odata/sap/API\_OUTBOUND\_DELIVERY\_SRV?v=0002'. The 'Add To Router' option is set to 'Yes'. Below this, the 'Joule Chat' window is open, showing a list of files used in the project, including 'manifest.json', 'DNDetail.view.xml', 'DNDetail.controller.js', 'scanPage.controller.js', and 'xs-app.json'. The 'Overview of Code Changes' section lists five changes: 1. Added a new route and target for 'DNDetail.view.xml'; 2. Created a new XML view for the 'DNDetail.view.xml'; 3. Created a new controller for the 'DNDetail.view.xml'; 4. Updated the existing controller for 'scanPage.controller.js'; 5. Added a new button labeled 'Go' in 'scanPage.view.xml'. The 'Terminal' window at the bottom shows the output of the 'fiori-tools-preview' command, indicating that the HTML file is loaded from the file system and that the 'util\_extend' API is deprecated.

## 1.4 Add new page for DN Details

/ui5-create-page Create new page called DN Detail with controller and routing.

Create Text field for Devliery Document, Delivery Date, ship-to, and a table of DN's item with item and materia

Add a button in scanPage to navigate to DN page

## 1.5 Add field, table, button for scanPage

```
/ui5 Add a field called picking number in scanPage, and add a button called search next to it.  
In onSearch function, Use Ajax Call https://pickMock-fantastic-platypus-sj.cfapps.us10-002.hana.ondemand.com/pic  
The data model curPick is like this format: { "pickNumber": "2000100002", "palletList": [ { "palletID": "0000050004"  
Add a table called Pallet List binding with palletList in curPick model, showing the palletID for each row  
Add another table called Outbound Delivery binding with DNList in curPick model, showing the DNNNumber in DNList
```

---

## 1.6 Add navigation to Detail Page

```
/ui5 Add the onNavRowToDetail function in scanPage controller, and bind it to the row in DNListTable.  
onNavRowToDetail will route to DNDetail Page with parameter DNNNumber.  
Do not forget to update route in manifest.json
```

## 1.7 Add Odata Model binding in Detail Page

```
/ui5 In DNDetail Page, set page title to the DNNNumber from parameter in oninit function.  
bind the view to the entity A_OutbDeliveryHeader with key DNNNumber  
Then, check metadata.xml and manifest.json to bind corresponding A_OutbDeliveryHeader's properties to the field
```

---

```
/ui5 In DNDetail Page, use simpleform to manage the layout of 3 data field
```

## 1.8 Add Scan button for Picking

```
/ui5 in scanPage, add a scan button between picking number field and search  
use BarcodeScanner in on scan to trigger camera scan barcode, and write the decoded value to field pickingnumber
```

---

**BTW, For Testing Barcode Generating: <https://barcode.tec-it.com/en>**

## 1.9 Add Scan button for Pallet

```
/ui5 add a status field (default value is pending) for each palletID in the curPick data model in onSearch Function  
Add button scan Pallet in the header of palletListTable  
Use BarcodeScanner in onScanPalletPress to trigger camera scan barcode, if scanned palletID in palletList, change
```

---

## 1.10 Add PGI button and PGI service connecting S4

```
/ui5 add button PGI All DN in the header of outboundDeliveryTable  
Add function onPGIAllDN to handle the button logic, this should trigger the function PostGoodsIssue with parameter  
Don't forget to get csrf token and etag before do call pgi
```

/ui5 in onPGIAllDN, got 428 error, please get etag before do pgi

## 1.11 Some extra logic

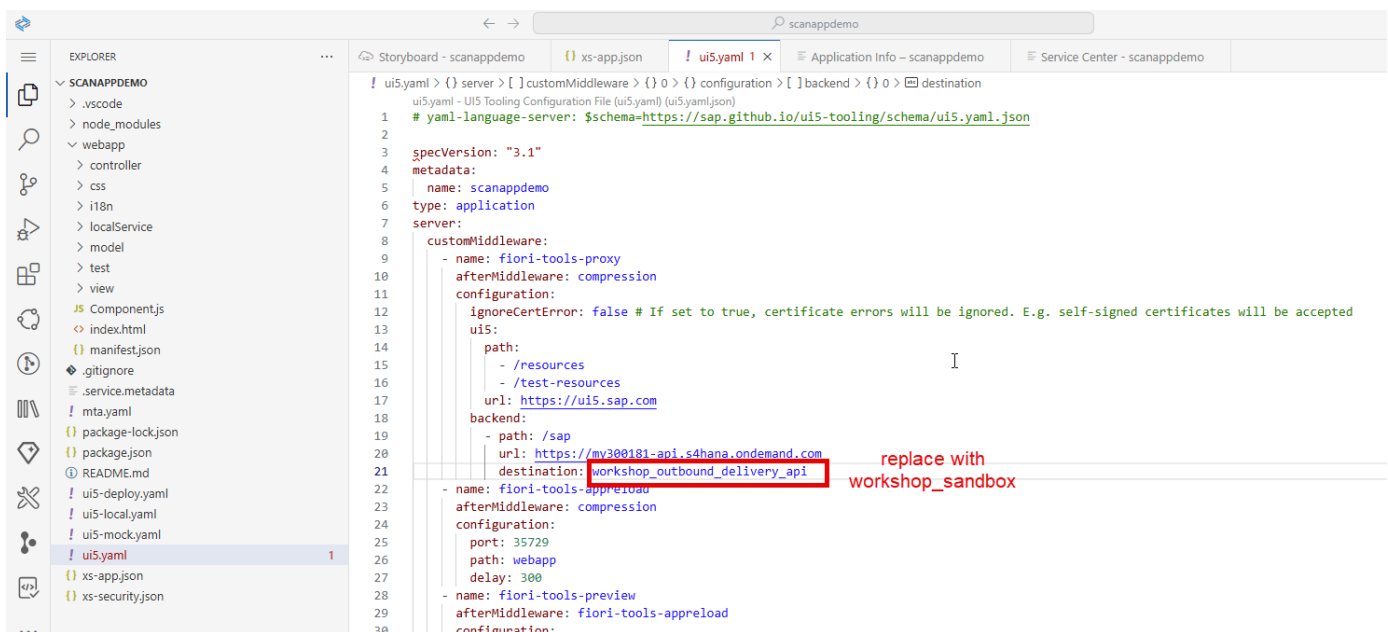
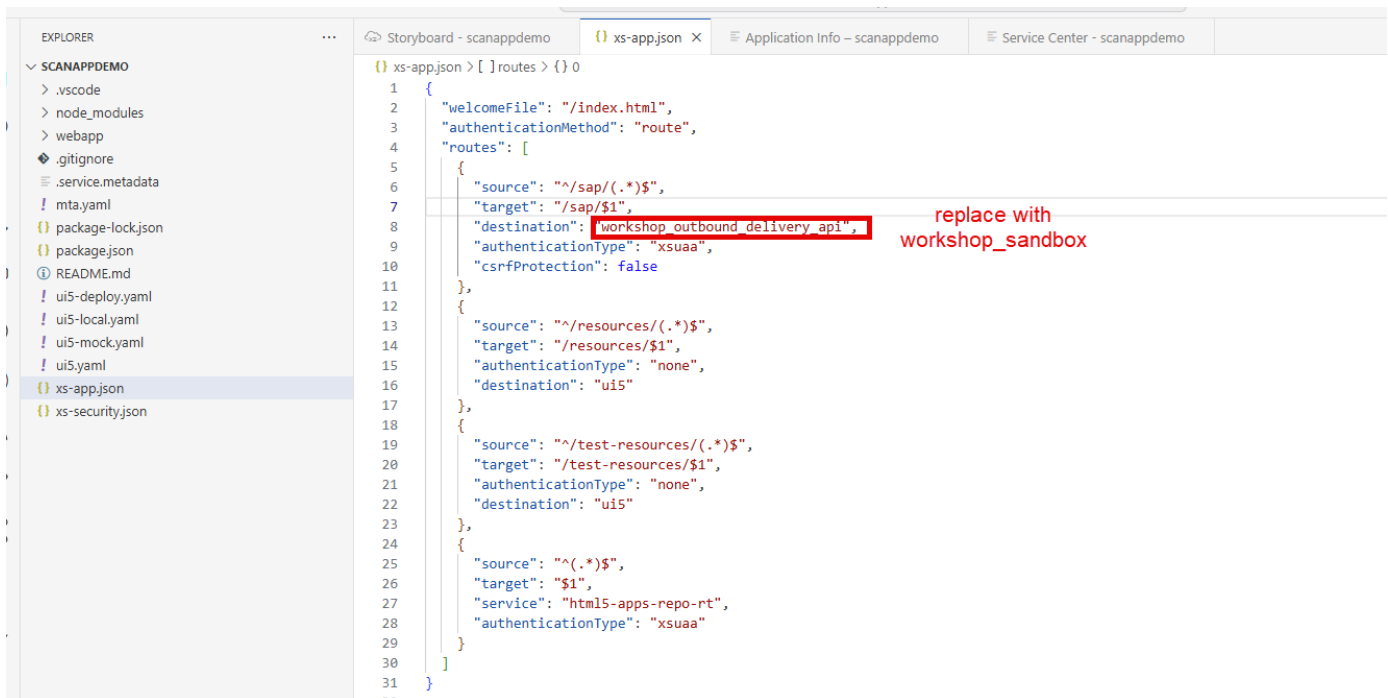
/ui5 for scanPage create status model, and add a PGIAllFlag in Model,  
by default PGIAllFlag should be false, and switch to true after all the pallet released

pgiAllDN button should be enabled based on this PGIAllFlag  
set pgi all button disabled while waiting for the backend response

/ui5 add a scanPalletFlag to status model, by default set as false, it will be set as true after successfully o  
scanPallet should be enabled with this flag

---

## 1.12 Build and Deploy



run command in terminal (or just use task center):

```
npm run build:mta
```

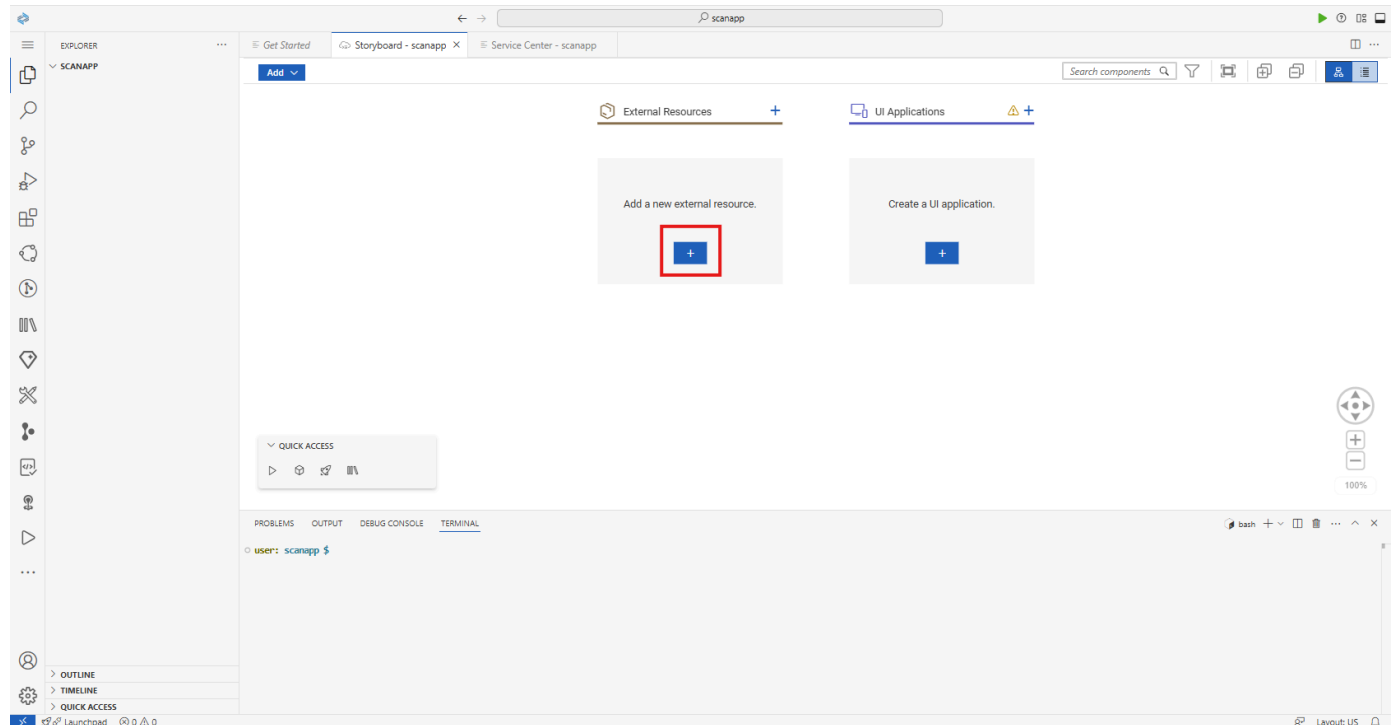
```
npm run deploy
```

## Scene 2 - Create Outbound Delivery List Page

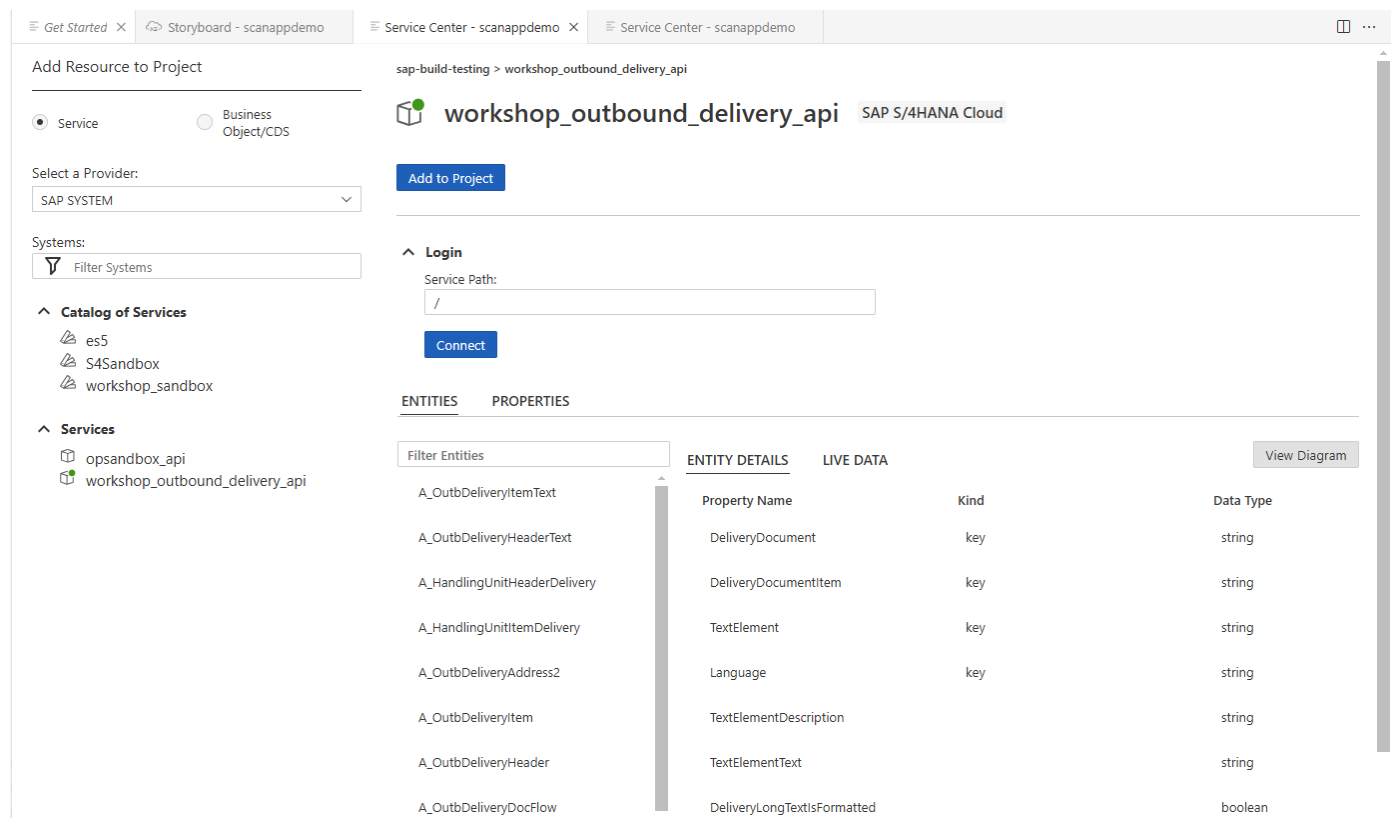
### 2.1 Create Project

### 2.2 Import External Resource

## Add External Resource

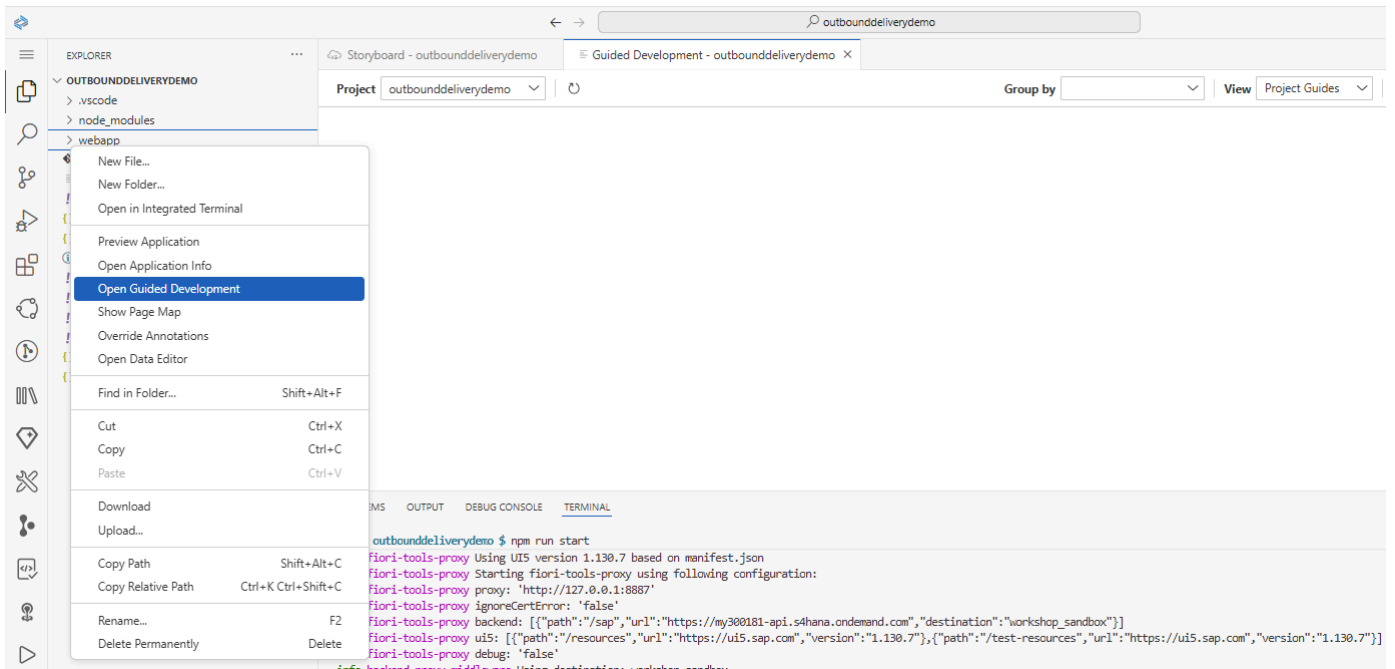


## Select Service



## 2.3 Open Guided Development





## 2.4 Add Column to List

Project: outbounddeliverydemo

Group by: Page Type | View: Project Guides

Add a progress indicator column to a table

Add a rating indicator column to a table

Add a smart chart facet to an object page

Add a value help to a field in the filter bar

Add an action button

**Add and edit table columns**

Add custom columns to the table using extensions

Add multiple fields to a column in responsive tables

Add semantic highlights to line items in a table

Add status colors and icons to a column in a table

Configure flexible column layout

Configure inbound navigation

Configure multiple selection for a table

Configure object page header

Configure selection of all rows in a table

Configure side effects

Configure spreadsheet export

Configure table type

Enable a Show Related Apps button

Enable condensed table layout

Enable draft toggle buttons

Enable inline creation of table entries

Enable object creation in a table via dialog

Extend forms in sections

**Add and edit table columns**

XML Annotation | ABAP CDS Annotation

Guide information

1. Add a new record to the UI.LineItem annotation term

Entity Type \*

A\_OutDeliveryHeaderType

**Column Parameters**

Once you select an Entity Type, the columns currently in your table will appear below. To add a new column to your table, click **Add column** and a new row will be added to the collection of columns below. Select the Property from your chosen Entity Type that you would like to be displayed as a new column in your table. You can also choose a property from a differently linked entity type by selecting a Navigation Path.

If you would like to rearrange the order of new or existing columns, you can do so by using the arrow icons or dragging the column to the desired position. Columns may also be deleted with the trash can icon.

You must select an Entity Type before adding or modifying columns.

**Add column**

	Label	Navigation Path	Property *	UI Importance
1	Enter column label	Select a navigation path	DeliveryDocument	Select an importance type fo...
2	Enter column label	Select a navigation path	CreationDate	Select an importance type fo...
3	Enter column label	Select a navigation path	CreatedByUser	Select an importance type fo...
4	Enter column label	Select a navigation path	GoodsIssueTime	Select an importance type fo...

**Insert Snippet** **Reset**

Files: [annotation.xml] Copy

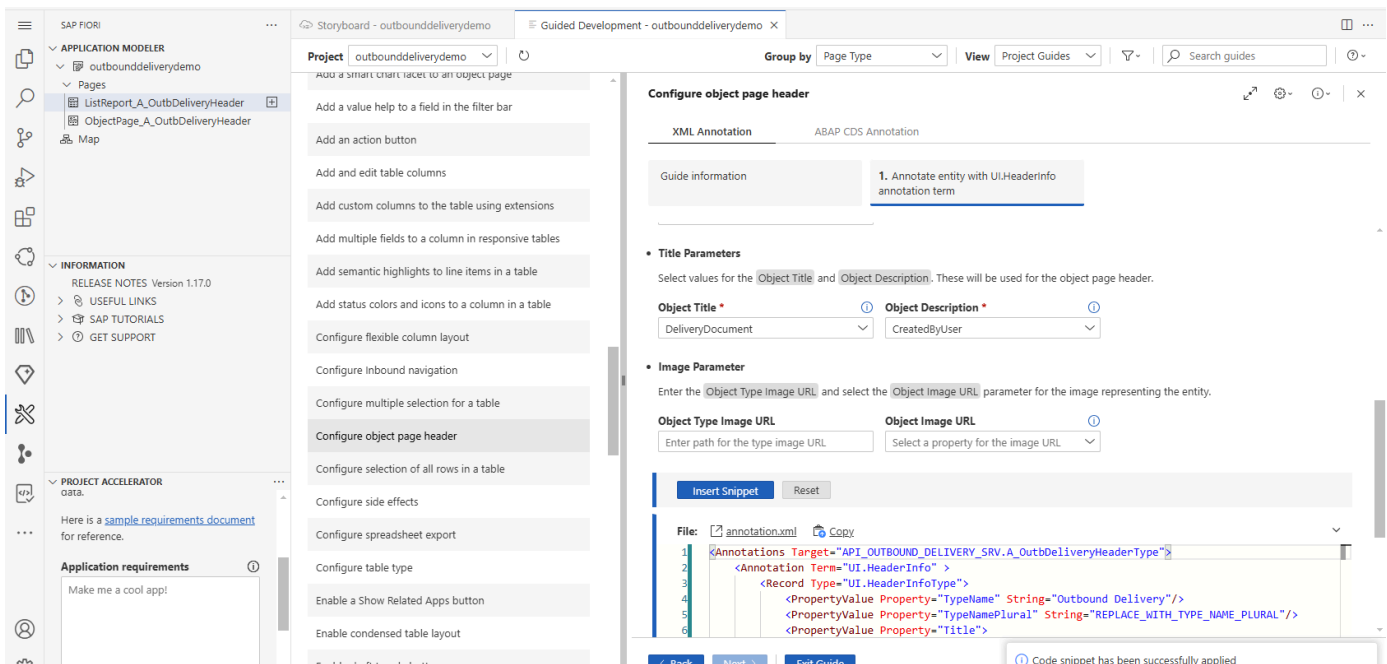
```

1 <Annotations Target="API_OUTBOUND_DELIVERY_SRV_A_OutDeliveryHeaderType">
2   <Annotation Term="UI.LineItem">
3     <Collection>

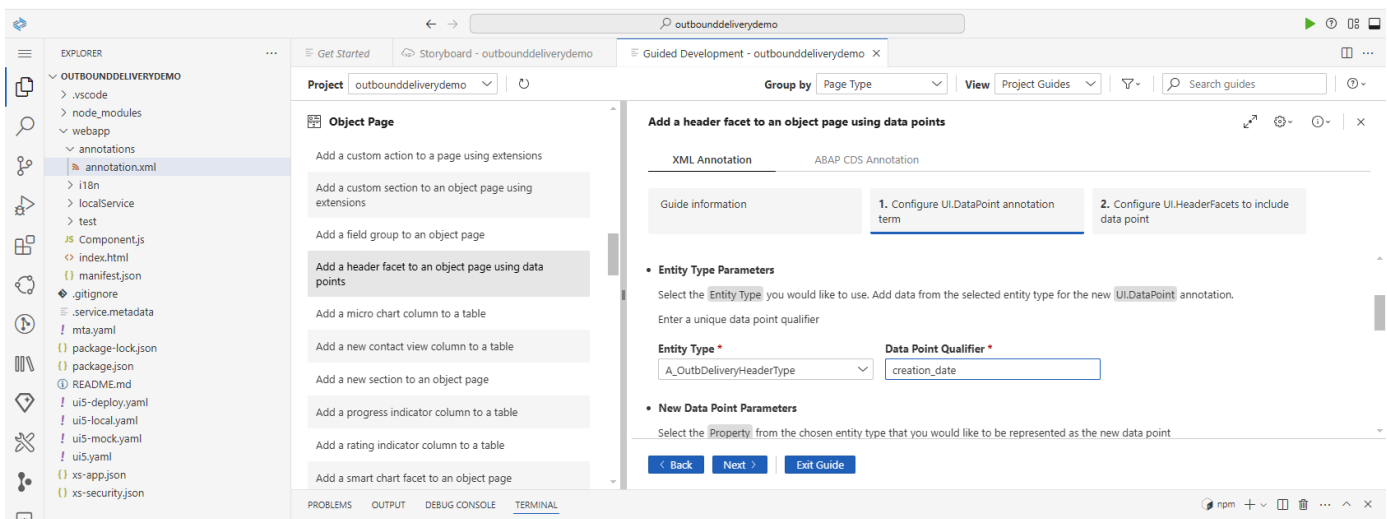
```

## 2.5 Add Filter for List

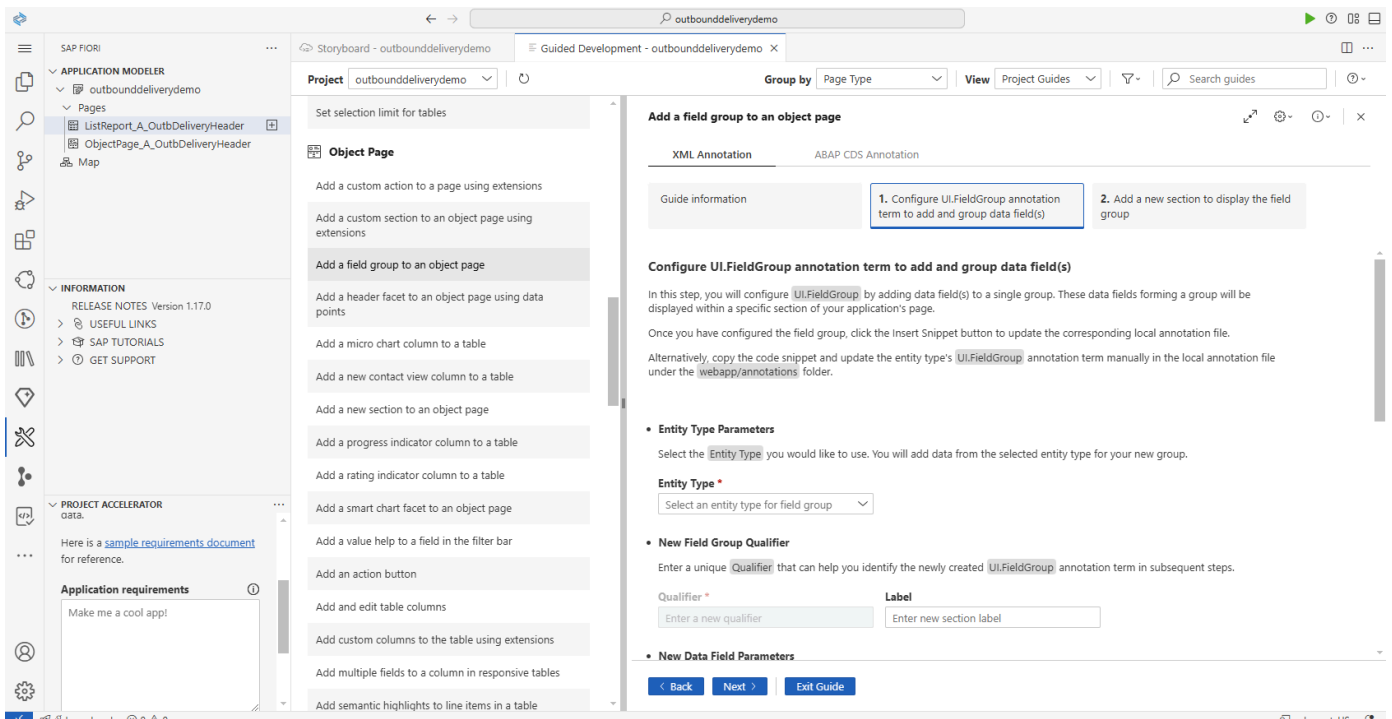




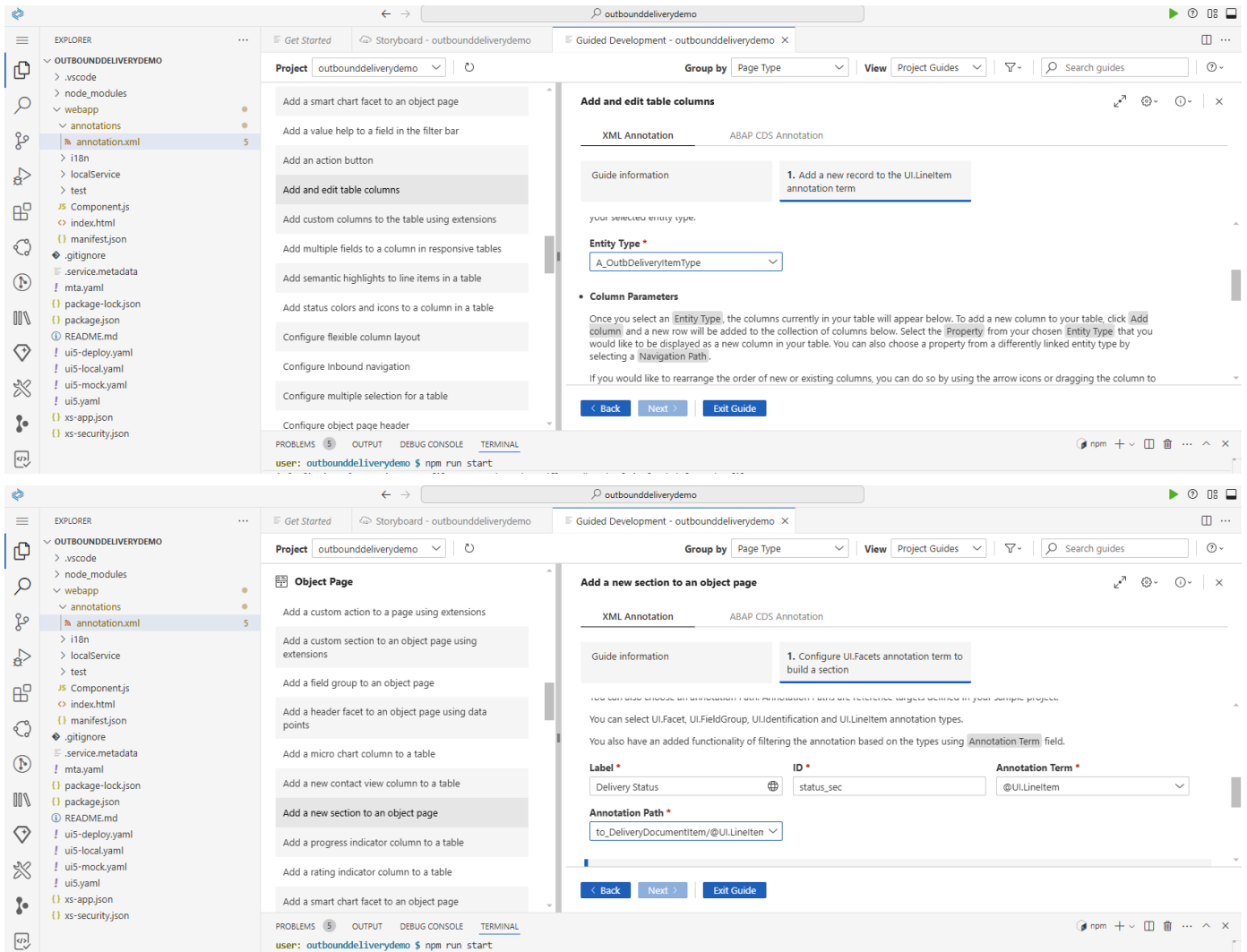
## 2.8 Add Header Facet to Object Page



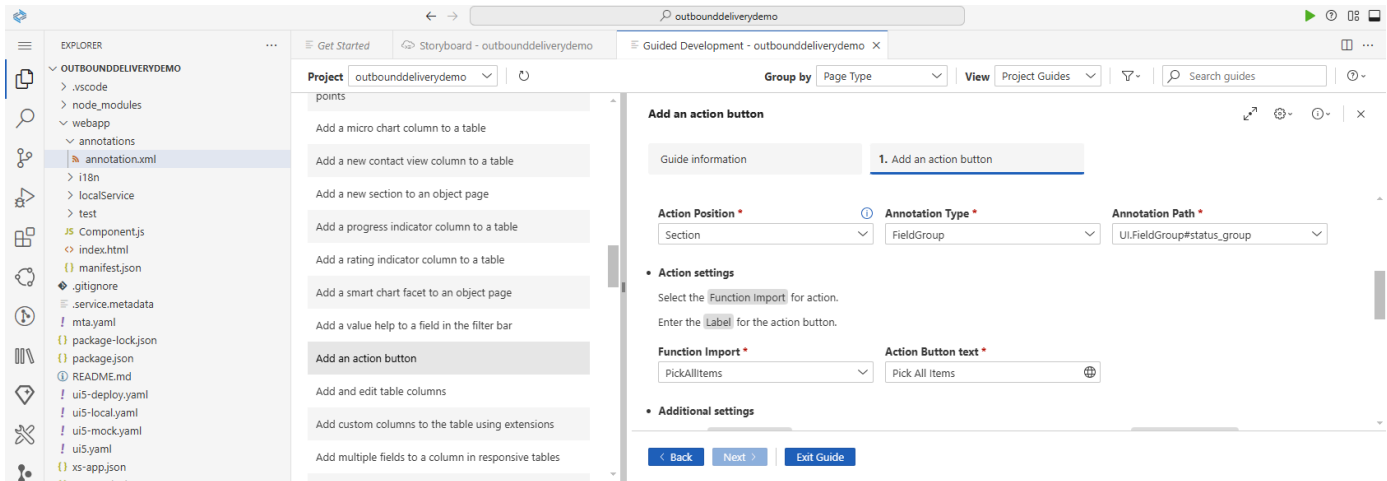
## 2.9 Add Field Group Section



## 2.10 Add List Section



## 2.11 Add Pick All Action Button



## 2.12 Build and Deploy

Run command in terminal: (also ok to use task center)

```
npm run build:mta
```

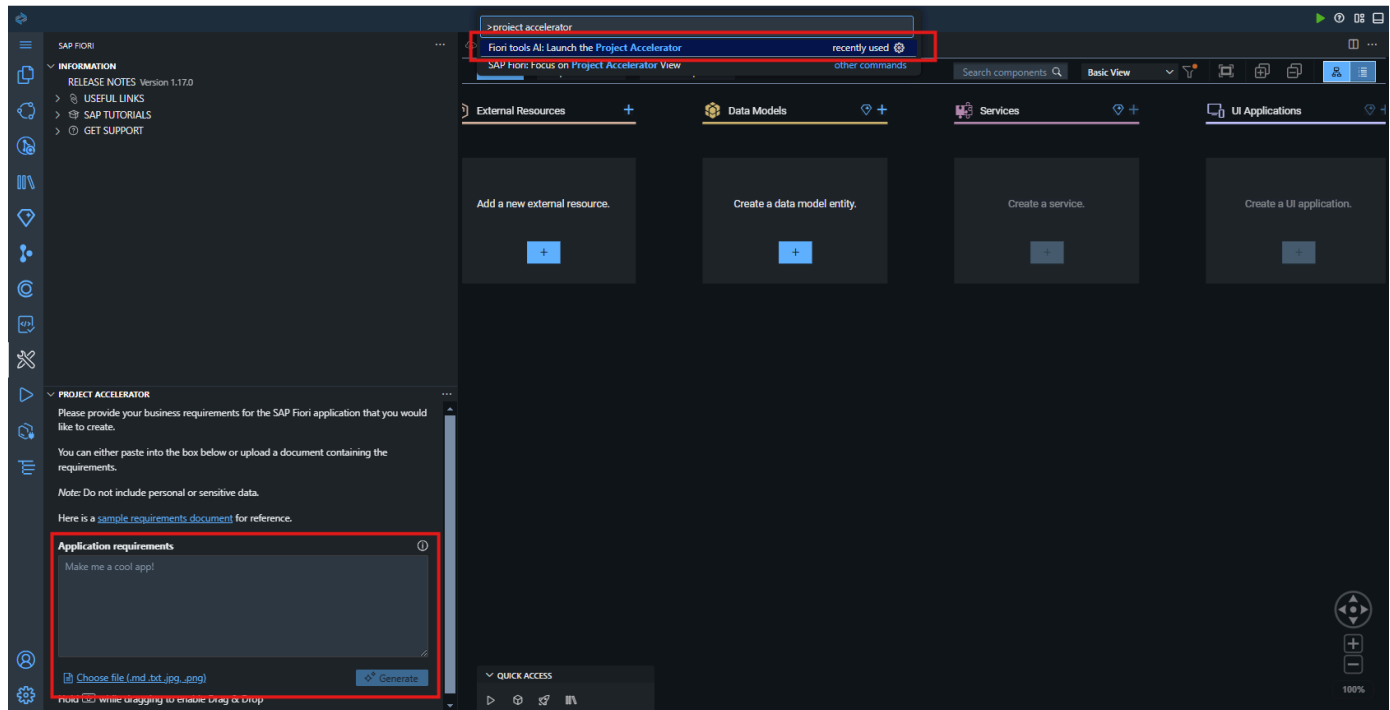
```
npm run deploy
```

## Scene 3 - Create Full Stack Project

### 3.1 Create Project

### 3.2 Open Project Accelerator

Type >project accelerator in the navigation field



Design the prompt of the project's data model and ui page, send

create an SAP Fiori application that shows the list of main delivery plan. navigate to the main delivery plan d  
Each main delivery plan has following attributes:

- 1 Main Plan ID (mandatory)
- 2 Delivery Date
- 3 Picking Number
- 4 Create By

Each sub delivery plan has following attrubutes:

- 1 Sub Plan ID (mandatory)
- 2 outbound delivery ID

Each delivery item has following attributes:

- 1 Sales Order (mandatory)
- 2 item id (mandatory)
- 3 planned quantity (mandatory)
- 4 unit (mandatory)

Each main delivery plan composite with multiple sub delivery plan

Each sub delivery plan composite with multiple delivery item

Preview the Project, if all the page generated correctly, press accept.

<

SAP

AI generated App deliveryplanapp

DU

Standard

Search

Q

Editing Status:

All

Main Plan ID:

Delivery Date:

Pick:

Created By:

Go

Adapt Filters (1)

Main Delivery Plans (5)

CreateDelete

<input type="checkbox"/> Main Plan ID	Delivery Date	Pick	Created By	
<input type="checkbox"/> MDP005	Oct 19, 2023	Yes	Charlie Davis	>
<input type="checkbox"/> MDP001	Oct 15, 2023	Yes	John Doe	>
<input type="checkbox"/> MDP004	Oct 18, 2023	No	Bob Brown	>
<input type="checkbox"/> MDP003	Oct 17, 2023	Yes	Alice Johnson	>
<input type="checkbox"/> MDP002	Oct 16, 2023	No	Jane Smith	>

<

SAP

Main Delivery Plan

DU

MDP005

EditDelete

General Information

Sub Delivery Plans

Main Plan ID:

MDP005

Delivery Date:

Oct 19, 2023

Pick:

Yes

Created By:

Charlie Davis

Sub Delivery Plans (1)

Search

Sub Plan ID	Outbound Delivery ID	
SDP005	OD005	>

<

SAP

Sub Delivery Plan

DU

MDP005 /

SDP005

Edit

Sub Delivery Plan Overview

Sub Delivery Plan Details

Sub Plan ID:

SDP005

Outbound Delivery ID:

OD005

Delivery Items (1)

Search

Sales Order	Item ID	Planned Quantity	Unit
SO005	IT005	30	pcs

3.3 Import External Resource

Use Storyboard Add External Resource, choose the destination we configured before.

Add Resource to Project

Service

Event

Function

Select a Provider:

SAP SYSTEM

Systems:

Filter Systems

Catalog of Services

es5

S4Sandbox

workshop\_sandbox

Services

opsandbox\_api

workshop\_outbound\_delivery\_api

sap-build-testing > workshop\_outbound\_delivery\_api

workshop\_outbound\_delivery\_api

SAP S/4HANA Cloud

Add to Project

Login

Service Path:

/

Connect

ENTITIES

PROPERTIES

Filter Entities

A\_OutbDeliveryItemText

A\_OutbDeliveryHeaderText

A\_HandlingUnitHeaderDelivery

A\_HandlingUnitItemDelivery

A\_OutbDeliveryAddress2

A\_OutbDeliveryItem

ENTITY DETAILS

LIVE DATA

Property Name

Kind

Data Type

DeliveryDocument

key

string

DeliveryDocumentItem

key

string

TextElement

key

string

Language

key

string

TextElementDescription

string

View Diagram

### 3.4 Add Custom Logic Create Outbound Delivery

```
/cap-app-logic #srv/code/outbounddeliveries-logic.js
loop all the sub delivery plan under current main delivery plan, and for each sub delivery plan call external s
for the input to create outboundDeliveryHeader, loop all the delivery item belonging to the sub delivery plan
each to_DeliveryDocumentItem contains referenceSDDocument - sales order, and ReferenceSDDocumentItem - itemid,
After creation update the outboundDeliveryID with the generate outbound delivery document
```

While pressing Create, Update Oubtound Delivery ID with the create outbound delivery in S4

<

SAP

Main Delivery Plan

DU

0001

Header

General Information

Sub Delivery Plans

Object Information

Main Plan ID: \*

0001

General Information

Main Plan ID: \*

0001

Delivery Date:

e.g. Dec 31, 2025

Pick:

☐

Created By:

Sub Delivery Plans (1)

Search

Create

Delete

Sub Plan ID \*

Outbound Delivery ID

000101

Draft updated

Create

Discard Draft



### 3.5 Add Custom Logic Create Picking

/cap-app-logic #srv/code/outbounddeliveries-logic.js  
after updating the outbound delivery number, call the https://pickMock-fantastic-platypus-sj.cfapps.us10-002.ha with posting body like {"DNList": []} the DNList would contain all the created outboundDeliveryId, this interfa let's update this returned pickingNumber to the field pickingNumber of deliveryPlan

While pressing Create, Update Picking Number to this field with the response of mock MES system.

SAP

Main Delivery Plan

DU

0001

Edit

Delete

General Information

Sub Delivery Plans

Main Plan ID:  
0001

Delivery Date:  
Mar 24, 2025

Picking Number:  
2000100008

Created By:  
-

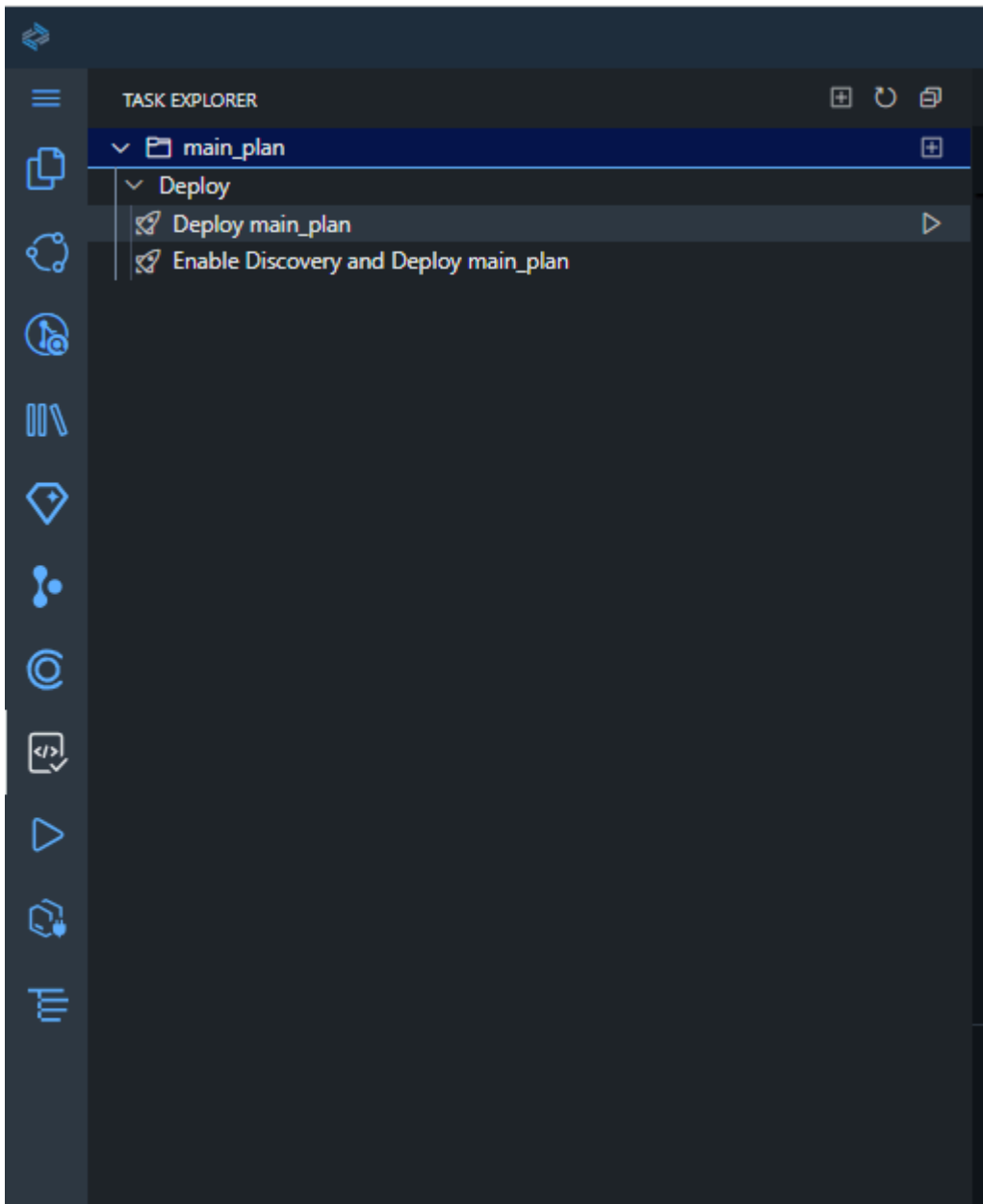
Sub Delivery Plans (1)

Search

Sub Plan ID	Outbound Delivery ID	
000101	80415359	>

### 3.6 Deploy

Directly Run this in task center, it will help handle build and deploy



It will let you input user and password for cf logon, and also target and space

#### 4 Add Apps to Workzone

Site Manager - Content Manager




Search in Title, Description, ID  All Items

Create  Content Explorer Import Export

## Content Manager / Delivery

Save Cancel

All Apps (4)

Search in Title, Description, ID

 Content Manager / Everyone

Save Cancel

All Apps (4)

Search in Title, Description, ID

Items (1-4) < >

Site Manager - Site Directory




Search

# Appendix - Related Tutorials

## ABAP Cloud Tutorial

<https://github.com/amritansh-sap/sap-build-abap-dev-workshop>

## SAP Build Code\_ Fiori Application – Fiori Element Project

<https://developers.sap.com/group.fiori-tools-lrop.html>

## SAP Build Code – UI5 Free Style Project

<https://community.sap.com/t5/technology-blogs-by-sap/ui5-freestyle-development-in-sap-build-code-with-joule/ba-p/13897852>

## SAP Build Code\_ Full-Stack Application – Joule Generate Full-stack project

<https://community.sap.com/t5/technology-blogs-by-sap/generative-ai-based-sap-fiori-app-development-with-joule-directly-from-the/ba-p/13654153>

## SAP Build Code\_ Full-Stack Application – Joule Generate CAP + Fiori Template

<https://developers.sap.com/tutorials/build-code-complex.html>

## Help portal for Project Accelerator

[https://help.sap.com/docs/SAP\\_FIORI\\_tools/17d50220bcd848aa854c9c182d65b699/6845fedbb38c4da7a54a2c76081f3abb.html](https://help.sap.com/docs/SAP_FIORI_tools/17d50220bcd848aa854c9c182d65b699/6845fedbb38c4da7a54a2c76081f3abb.html)