# openSAP Evolved Web Apps with SAPUI5

Week 1 Unit 2: Developing in the Cloud with SAP Web IDE

# **Exercises**

**PUBLIC** 







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#### **DEVELOPING IN THE CLOUD WITH SAP WEB IDE**

#### Summary

In this unit, you'll set up everything you need for the hands-on exercises in this course. You'll get to know the development environment SAP Web IDE, configure your own SAP Fiori launchpad, and create a destination to the ES5 SAP Gateway demo system. Then, you'll test everything by creating a "Pre-Flight Check" app. Finally, you'll deploy your first app to the SAP Cloud Platform.

#### Preview

After this exercise, the foundation is established for the rest of the course: The basic configuration is in place and has been tested, and you understand the corresponding concepts.

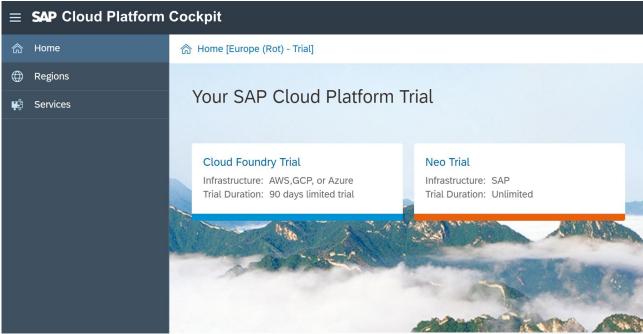


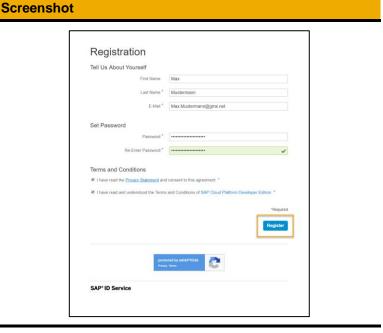
Figure 1 – The SAP Cloud Platform start page

# **Create an SAP Cloud Platform Developer Account**

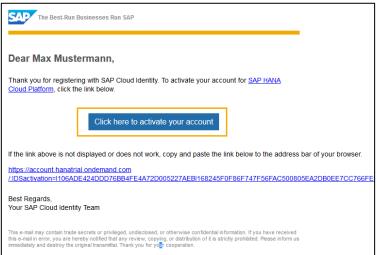
# **Explanation** Screenshot 1. Open your browser, and open the following URL: https://account.hanatrial.ondem and.com/ **Note: Use Google Chrome** We recommend that you use Google Chrome as a browser for this course, as it has the best developer tools. Our instructions and browser-related tips throughout this course will be refer to Google Chrome. If you don't have it installed yet, go to the following URL, and follow the setup steps: https://www.google.de/chrome/br owser/desktop/ 2. Choose Register to create a **■ SAP** Cloud Platform Cockpit free SAP Cloud Platform ☆ Home [Europe (Rot) - Trial] developer account. Home - Overview Log On Register SAP Cloud Platform

# Explanation Enter your name and e-mail address, and choose a password (at least 8 characters long, including upper- and lowercase letters, numbers and symbols). Accept the terms & conditions, and click Register. Note: Trial Account This will create a developer account on SAR Cloud Platform for you with

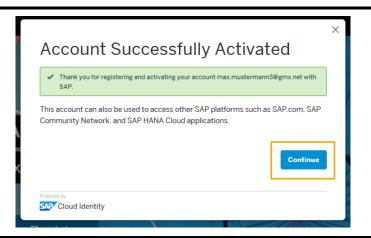
on SAP Cloud Platform for you with a free and perpetual developer license. You can use this account to test out the platform or run demo scenarios.



**5.** A confirmation e-mail has been sent to your account. Open it, and choose *Click here to activate your account.* 



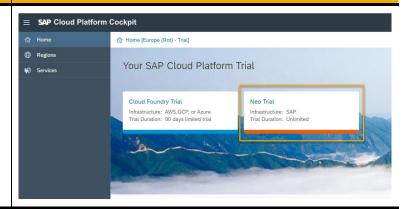
 You should see a confirmation dialog. Choose Continue to go to the SAP Cloud Platform Cockpit.



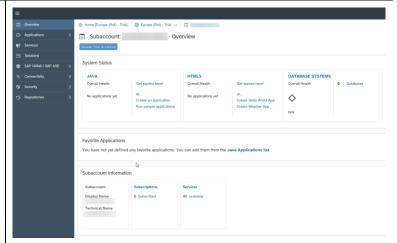
# Explanation

## **Screenshot**

7. Choose Neo Trial.



8. In the Neo Trial environment, you can see a navigation frame on the left. This is your entry point for managing cloud apps and configurations.



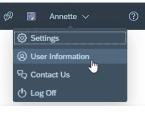
# Note: How to keep track of your user

Two sets of users and passwords are created in this unit:

- For the SAP Cloud Platform Developer Account (what we just did)
- For the SAP Gateway Demo System ES5 (later in this unit)

If you are in doubt what your user is do this:

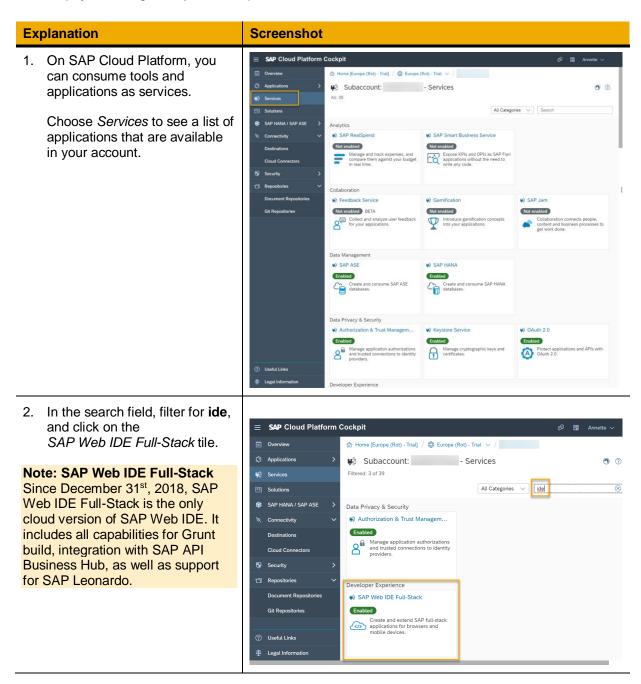
- SAP Cloud Platform Developer Account: On the top right side of the Cloud Platform Cockpit you can display your user.
- SAP Gateway Demo System ES5: You'll receive an e-mail with the temporary password. This you have to change immediately, of course, but the user will remain the same.





# **Navigate to Your SAP Web IDE Workspace**

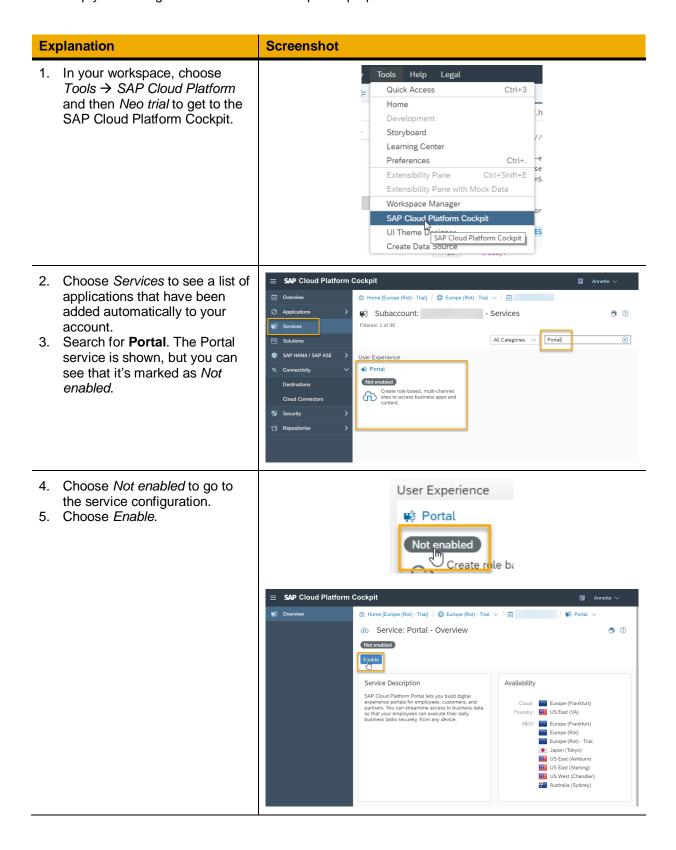
In this step, you'll navigate to your workspace in SAP Web IDE.

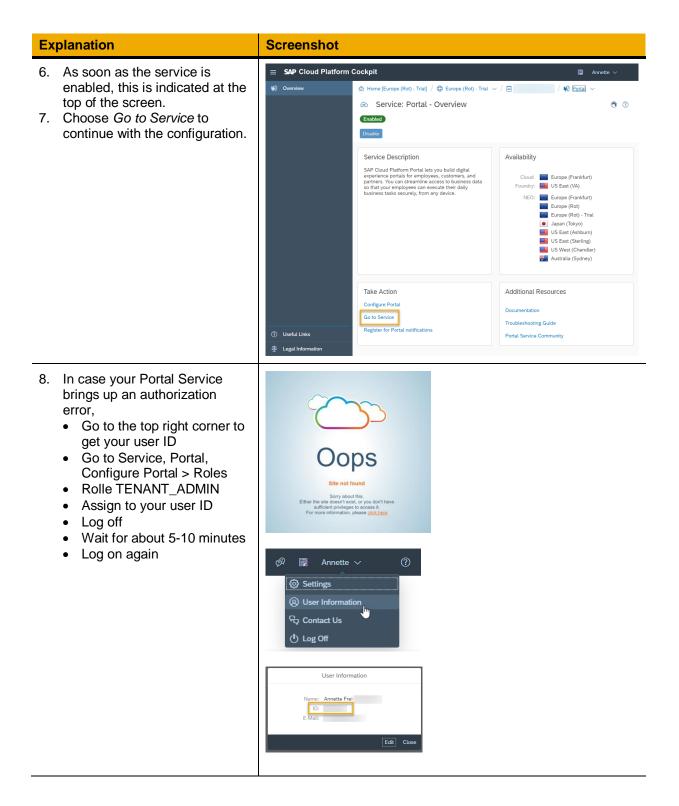


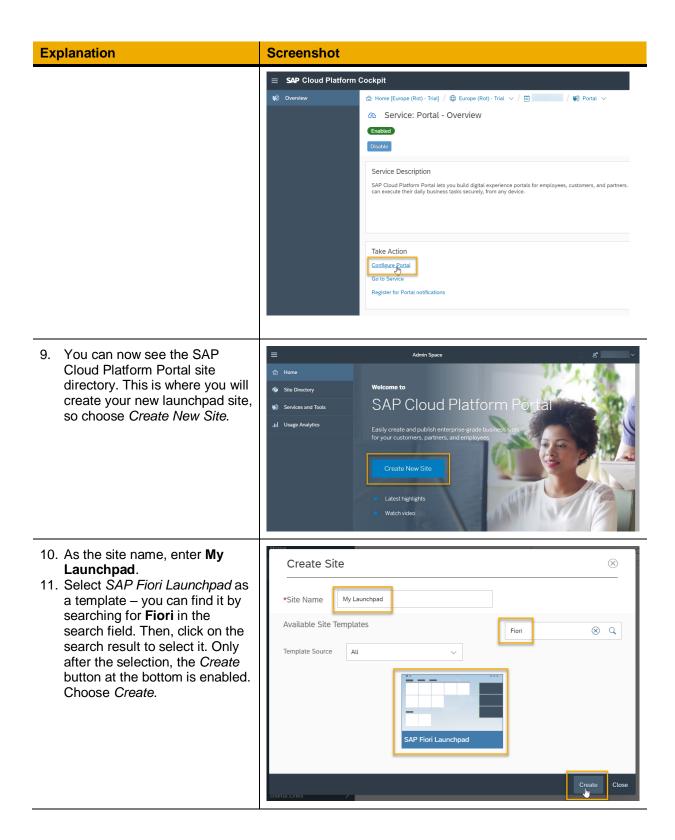
#### **Explanation Screenshot** Check the label underneath the title; if it reads Not enabled. @ Home [Europe (Rot) - Trial] / @ Europe (Rot) - Trial √ SAP Web IDE Full-Stack choose Enable. If the label Service: SAP Web IDE Full-Stack - Overview Enabled reads Enabled and the label is green, you can choose Go to Service in the Take Action Service Description Availability area. NEO: Brazil (São Paulo) Canada (Toronto) Europe (Amsterda KSA (Riyadh) Russia (N UAE (Dubai) US East (A US East (Ster Additional Resources Take Action 4. SAP Web IDE opens. Have a look at the start page. It contains useful links and shortcuts to the most important actions. Choose Open my Welcome to SAP Web IDE workspace. The direct link to SAP Web IDE is https://webidecp-Create a Project p[XXXXXXXXX]trial.dispatcher.ha **C** natrial.ondemand.com/ Quick Start with Layout Editor New Extensi Helpful Links Note: Replace [XXXXXXXXXX] with your trial account user ID. If you are using an existing trial account, you will see a workspace with your other projects in this step. (Optional) Add a bookmark to 5. × Edit bookmark SAP Web IDE Full-Stack by pressing CTRL+D in Google Chrome. You will need this link Bookmarks bar to your development environment frequently More... throughout the course, so you should bookmark the page.

#### Configure the Service for the SAP Fiori Launchpad

In this step you'll configure the SAP Fiori launchpad in preparation for week 4 of the course.





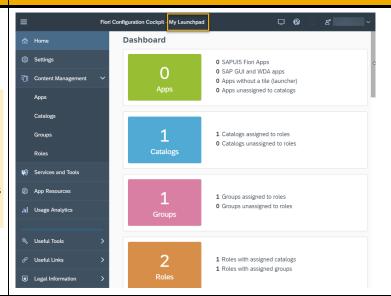


### **Explanation**

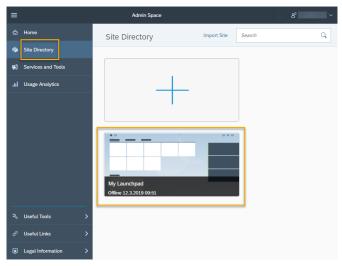
#### **Screenshot**

 Another browser tab is opened with the Fiori Configuration Cockpit for the new launchpad site My Launchpad.

Note: Default Configuration Settings of My Launchpad On the dashboard on the Home screen, you can see the default settings that came with the template you selected. You can change the settings with the options in the navigation panel on the left side.

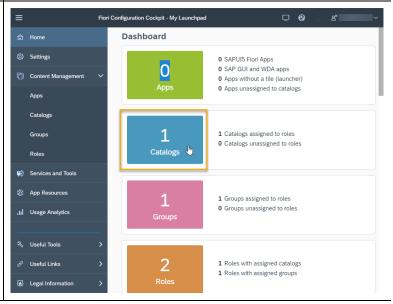


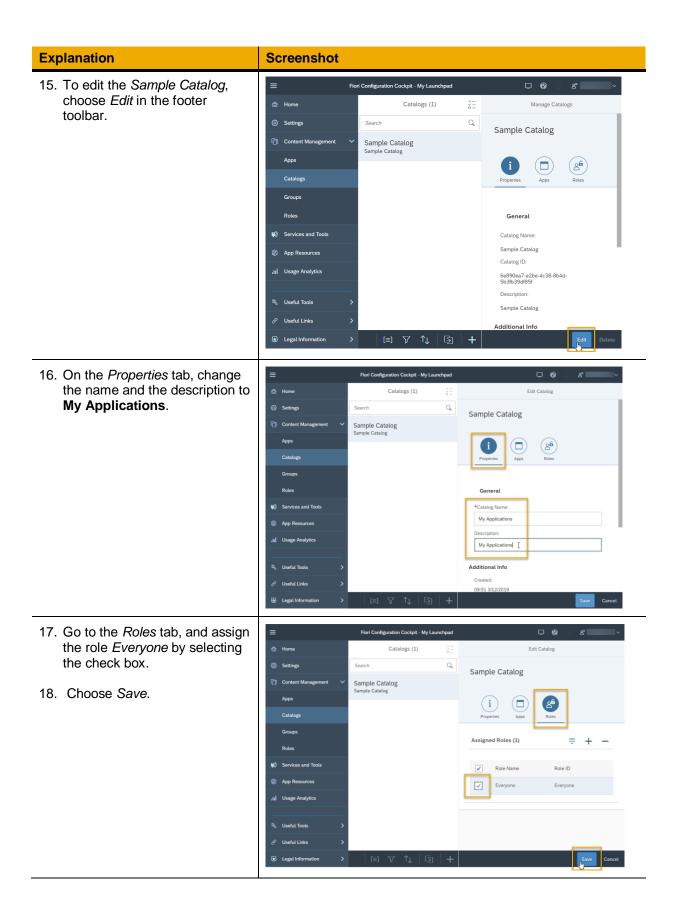
 Result: If you go back to your previous browser tab, which is the Site Directory, you can see that a new launchpad site was added.

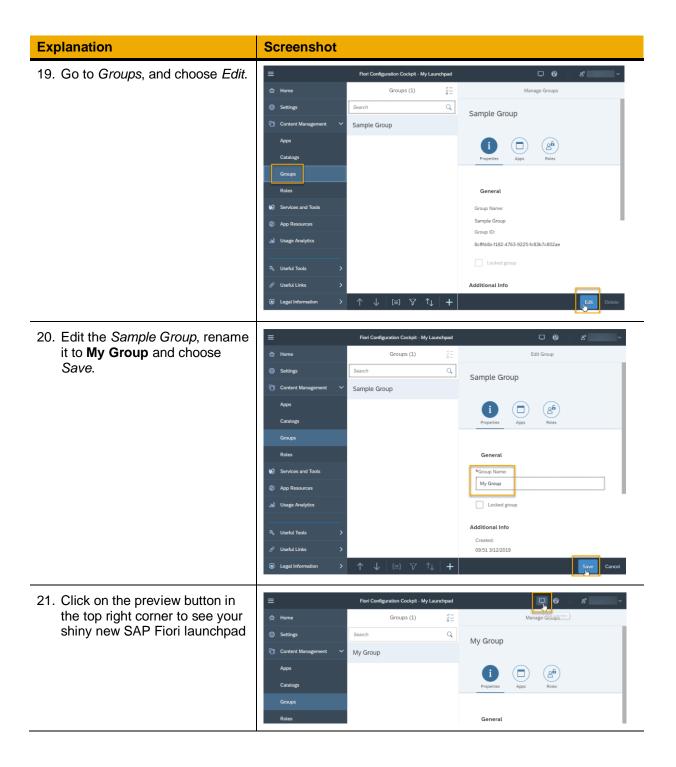


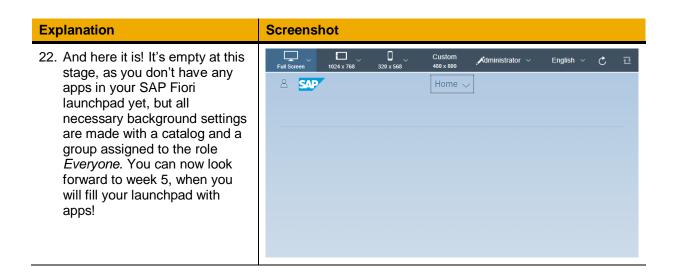
14. Return to the launchpad configuration tab. Next, configure the launchpad catalog. Return to the *Fiori Configuration Cockpit*, and choose *Content Management* → *Catalogs*, or simply choose the *Catalogs* tile.

**Note:** A catalog is a set of apps you want to make available for a role. Depending on the role and the catalogs assigned to the role, users can browse through the catalogs and chose the apps that they want to display on the entry page of the SAP Fiori launchpad.









You have successfully created a basic SAP Fiori launchpad in preparation for week 5.

#### Connect to the ES5 Demo System

In this step, you create an account with a user name and a password for the SAP Gateway demo system ES5. Then, you can configure a destination in the SAP Cloud Platform Cockpit.

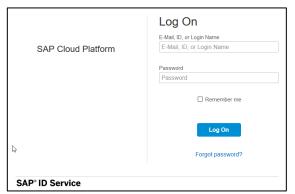
#### Note: SAP Gateway demo system ES5

With the below configuration, you can consume data from GWSAMPLE\_BASIC and other demo services hosted publicly on the ES5 system. These sample services are typically based on the Enterprise Procurement Model containing entity types BusinessPartner, Contact, Product, SalesOrder and SalesOrderLineItem.

**Screenshot** 

#### Sign Up and Get Started with the SAP Gateway Demo Consumption System

# Start the SAP Gateway demo system with this URL https://register.sapdevcenter.com/SUPSignForms/ If you see the log on screen, log on to your SAP Cloud Platform account. If you are already logged in you'll see the SAP Gateway Demo Server welcome page. Read the terms and conditions, and choose Register.

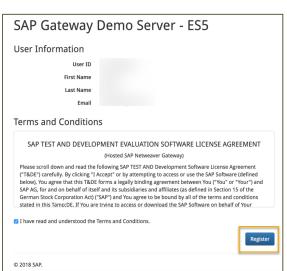


### Note: How to keep track of your user Two sets of users and passwords are created in this unit:

- For the SAP Cloud Platform
   Developer Account (what we did as first step)
- For the SAP Gateway Demo System ES5 (what we're doing here)

If you are in doubt what your user is do this:

- SAP Cloud Platform Developer Account: On the top right side of the Cloud Platform Cockpit you can display your user (see above).
- SAP Gateway Demo System ES5:
   You received this e-mail with the
   temporary password. This you have to
   change immediately, of course, but
   the user will remain the same.



# **Explanation Screenshot** 4. If an upgrade for your trial account is Upgrade Your Account for SAP Cloud necessary, you will see an additional step for this during your registration **Platform** process. Read and acknowledge Tell Us About Yourself SAP's privacy statement, and choose First Name Register. Last Name \* Terms and Conditions ☐ I acknowledge that I have read SAPs Privacy Statement SAP® ID Service 5. You will see a success messagefor SAP Gateway Demo Server - ES5 your registration. 6. Go to your e-mail inbox to find the **User Information** confirmation e-mail, or follow the User ID instructions on the screen to log on to the SAP Gateway WebGUI First Name (https://sapes5.sapdevcenter.com/). Last Name Email Temporary Password Show Password? Your registration is now being processed. **Next Steps** In a few minutes you will receive an email with a temporary password. After you receive the email, log in $the \, SAP \, \textit{Gateway WebGUI} \, and \, change \, your \, password. \, Once \, you \, have \, changed \, your \, initial \, password, \, you \, passw$ have full access to the Gateway system. © 2018 SAP. 7. Log on with your user name and temporary password. SAP NetWeaver System: ES5 Client<sup>\*</sup> 002 User:\* Language: English Change Password Welocme to ICC Test system, NW AS ABAP 7.51 SAP IDES Client for usage is 002

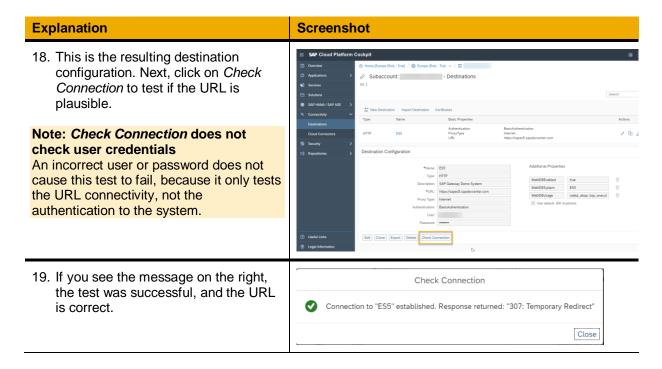
In case of problems please contact:
a rac-support@sap.com

SAP

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# **Explanation Screenshot** 8. Change the password from a temporary to a permanent password. SAP NetWeaver 9. Write down the new password for This is an initial password that must be changed the next configuration step. User: Current Password:\* New Password:\* Repeat Password:\* ...... Welocme to ICC Test system, NW AS ABAP 7.51 SAP IDES Client for usage is 002 In case of problems please contact: rac-support@sap.com SAP Copyright @ 2018 SAP SE. All rights reserved. 10. The initial screen appears, which means your user ID and password work. You're all set to create a destination in the SAP Cloud Platform Cockpit. This destination will then be the connection between the service and your app. 11. To get to the SAP Cloud Platform Legal Help Cockpit, go to your Web IDE Full-Quick Access Ctrl+3 Stack trial account (use your Home bookmark, if have set it). 12. Go to Tools → SAP Cloud Platform Development Cockpit. Storyboard Learning Center Preferences Ctrl+. Ctrl+Shift+E Extensibility Pane Extensibility Pane with Mock Data Workspace Manager SAP Cloud Platform Cockpit UI Thems Designer latform Cockpit

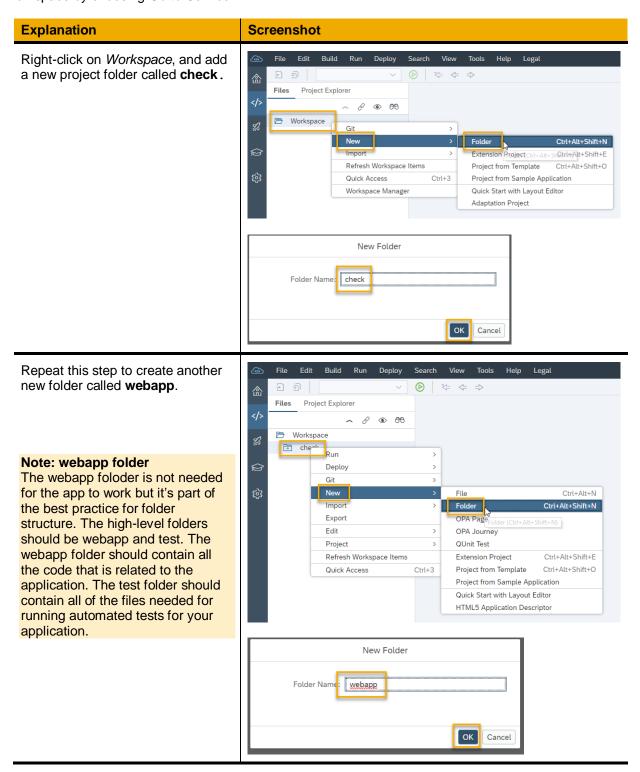
# **Explanation Screenshot** 13. In the SAP Cloud Platform Cockpit, ■ SAP Cloud Platform Cockpit choose Connectivity → Destinations. Applications ⊗ Subaccount: - Destinations 14. Choose Import Destination. Leave the Services import popup open as you perform the next step. 15. In another tab, download the ES5 destination.txt file from the UI52 GitHub repository folder *import* by Find file Copy path right clicking the Raw button and choosing Save Link as... ES5 Destination on GitHub Save it to your local computer. Then select it in the import popup that appeared after you clicked on Import Destination. 16. Ensure the field entries match the Destination Configuration screenshot on the right side, and enter your user name and password for the SAP Gateway Demo System. 17. Choose Save. **Note: Additional Properties** WebIDEEnabled: This makes this destination visible to SAP Web IDE. WebIDESystem: This is the system ID that the service runs on. WebIDEUsage: You can enter multiple usages for a destination, separated by commas without spaces.

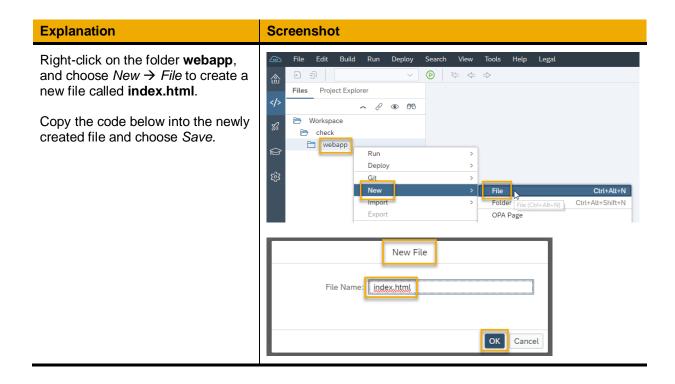


Note that this test is just a technical ping without authorization check. So, if you enter an incorrect password, this test will still be successful. For this reason, a test was added for the *Pre-Flight Check* app to see if you can retrieve a record through the service. If you get the record, the service works.

#### **Test the Development Environment**

Let's now check if our SAP Web IDE set-up works by adding the *Pre-Flight Check* example. From the SAP Cloud Platform Cockpit, go back to *Services*, find *SAP Web IDE Full-Stack* again, and re-open your workspace by choosing *Go to Service*.





## webapp/index.html (NEW)

```
<!DOCTYPE HTML>
<head>
  <meta charset="UTF-8">
  <title>openSAP - Evolved Web Apps with SAPUI5</title>
  <link rel="stylesheet" type="text/css"</pre>
href="../../resources/sap/ui/core/themes/sap belize/library.css">
  <script id="sap-ui-bootstrap"</pre>
    data-sap-ui-libs="sap.m"
    src="../../resources/sap-ui-core.js"
    data-sap-ui-theme="sap belize">
  </script>
  <script>
    // check javascript
    document.addEventListener("DOMContentLoaded", function() {
       document.getElementById("web").innerHTML = "Ready!";
    });
    // check ui5
    sap.ui.getCore().attachInit(function() {
       new sap.m.Title({
        text: "Ready!"
       }).placeAt("ui5");
       document.getElementById("go").style.display = "block";
    });
  </script>
</head>
<body class="sapUiBody sapUiSmallMargin sapUiForceWidthAuto">
  <h1>Evolved Web Apps With SAPUI5</h1>
  <h2>Pre-flight Check</h2>
  ul>
     <strong>Web Page:</strong>
       <strong>SAPUI5:</strong>
       <strong>Backend System:</strong>
       <iframe id="es5"</pre>
src="/ES5/sap/opu/odata/iwbep/GWSAMPLE BASIC/VH CountrySet('DE')?$format=xml"
style="border:none; display: block"></iframe>
    <h2><span id="go" style="display: none; color: forestgreen">&rarr; All systems go
- ready for take-off!</span></h2>
</body>
</html>
```

This page is intended to check some important things in our configuration:

- The head contains the UI5 bootstrap to make UI5 available. You test this by adding a UI5 element to your page. If it comes up, UI5 is ready.
- You check that JavaScript is enabled by means of the script tags.
- In the body, the iFrame contains a call to our ES5 service via the SAP Gateway demo system: It retrieves one record through your ES5 destination, the value for Germany. If the value is returned in a record, the test was successful.

Next, you make your destination available to your app by adding it to the neo-app.json file.

#### Screenshot **Explanation** File Edit Build Run Deploy 1. Right-click on the your project root folder check, and choose Files Project Explorer New → HTML5 Application Descriptor. Note: You will see this entry only if Deploy index.html you right-click on the root folder of Ctrl+Alt+N your project. Folder Ctrl+Alt+Shift+N OPA Page Project QUnit Test Refresh Workspace Items Extension Project Ctrl+Alt+Shift+F Quick Access Project from Template Ctrl+Alt+Shift+O Project from Sample Application HTML5 Application Descrip 2. This creates the neo-app.json file in your app Files Project Explorer folder. 3. Add the following destination Workspace information to it, and save your file. mebapp **(**

#### neo-app.json

Your workspace should now look like this:

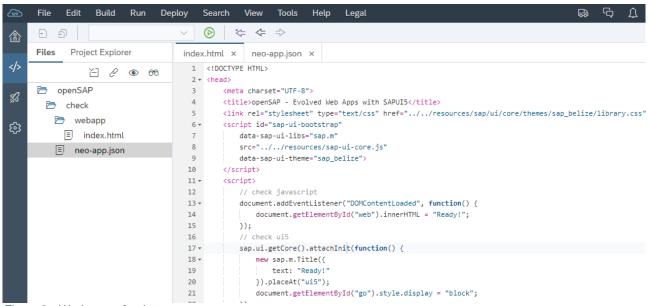


Figure 2 - Workspace for the test page

Remember to always save your changes by choosing the save icon(s) You should also use the preview button in the header toolbar from time to time. This will open a new tab with a preview of your app. Your "app" (remember: this is just a test) is now simulated in the cloud, and you will see the *Pre-Flight Check* app:

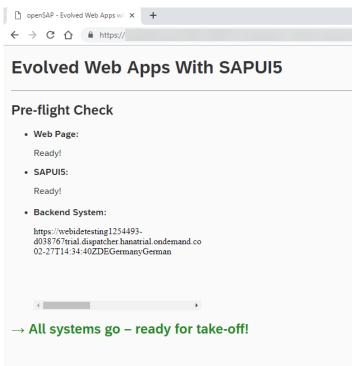


Figure 3 - Preview of the test page

Next, you'll learn how to deploy and share the app on SAP Cloud Platform.

## Deploy Project to Share it with the Outside World

The link to a deployed app is accessible on the internet. Use it to illustrate technical issues or share your achievements with other learners.

## Deploy your App to SAP Cloud Platform

When previewing your app with the button, you can conveniently test your local development. However, if you want to share your code, the local preview is not good enough. The URL is connected to your user session and won't work for other learners.

#### check/neo-app.json

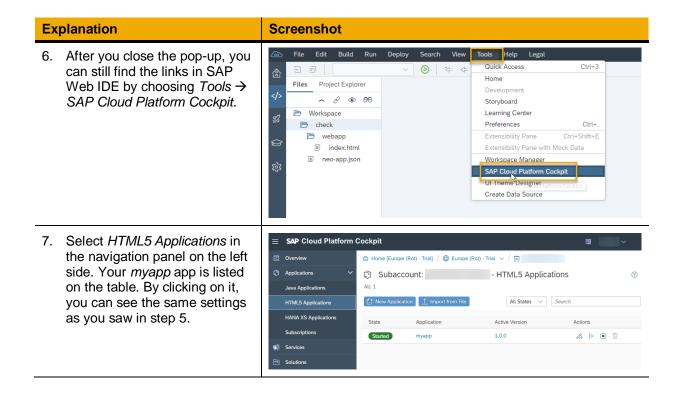
Before deploying the app, you need to configure the path so that SAP Cloud Platform can find the <code>index.html</code> file. In your SAP Web IDE workspace, (re-)open your <code>neo-app.json</code> file. Adjust the path for the welcome file by adding <code>webapp/</code> in front of <code>index.html</code>. Now, the path matches the folder structure in your <code>webapp</code> folder.

Save the file by clicking on one of the buttons in the top left corner



Explanation	Screenshot
<ol> <li>Next, you can deploy our app. Right-click the project folder, and choose Deploy → Deploy to SAP Cloud Platform.</li> </ol>	File Edit Build Run Deploy Search View Tools Help Legal  Files Project Explorer  Workspace  Check  Index.html

# **Explanation Screenshot** 2. A settings window opens. You Deploy Application to SAP Cloud Platform could change the name of your published app, give it a different Application Details version number, or deactivate it. For this exercise, use the default settings, and choose Get Accounts Deploy. Project Name MvAnn \*Application Name myapp Version Management 1.0.0 Cancel Deploy 3. Next, you get a pop-up with the Successfully Deployed success message and the links to the deployed app, which Version 1.0.0 has been created. means it is accessible on the Open the active version of the application Internet via this link. Clicking on Open the application's page in the SAPaG the first link will open the app. You can now register the application to SAP Fiori launchpad. Register to SAP Fiori launchpad 4. The second link displays the Successfully Deployed settings of your app in the SAP Cloud Platform Cockpit where Version 1.0.0 has been created. you can manage all apps on Open the active version of the application your cloud account. Open the application's page in the SAP Cloud Platform cockpit You can now register the application to SAP Fiori launchpad. Register to SAP Fiori launchpad Close SAP Cloud Platform Cock 5. When you click on the second link, you can see the app in the O HTML5 Application: myapp - Overview SAP Cloud Platform Cockpit. The publicly available link as well as the settings are all there. Edit Active Version Required Destinations



In the next unit, you'll learn how to set up a local development environment as an alternative to SAP Web IDE, how you can consume UI5, and how you can benefit from the latest UI5 Tooling.

## **RELATED MATERIAL**

• Demo Kit: App Development Using SAP Web IDE

#### **Coding Samples**

Any software coding or code lines/strings ("Code") provided in this documentation are only examples and are not intended for use in a production system environment. The Code is only intended to better explain and visualize the syntax and phrasing rules for certain SAP coding. SAP does not warrant the correctness or completeness of the Code provided herein and SAP shall not be liable for errors or damages cause by use of the Code, except where such damages were caused by SAP with intent or with gross negligence.

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