

# Beginning Development on SAP HANA



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In this article we will start preparing our environment for developing HANA applications and extensions.

To connect our HANA DB, we have to download Eclipse installation package which meet our expectations.

The screenshot shows the SAP Development Tools website. The browser address bar displays `tools.hana.ondemand.com`. The page has a navigation bar with links: HOME, ABAP, BW, CLOUD, CLOUD INTEGRATION, HANA, IDM, MOBILE, and SAPUI5. Below the navigation bar, there is a section titled "Tools" which contains instructions for installing Eclipse tools. It lists two options: Eclipse Oxygen (4.7) and Eclipse Neon (4.6.1), each with a corresponding URL. Below the instructions is a table titled "Tools" with columns for "Tab", "Tool", and "Available for Eclipse". The "Available for Eclipse" column is further divided into "Neon" and "Oxygen".

Tab	Tool	Available for Eclipse	
		Neon	Oxygen

<a href="#">ABAP</a>	ABAP Development Tools for SAP NetWeaver	✓	✓
<a href="#">BW</a>	Modeling Tools for SAP BW powered by SAP HANA	✓	
<a href="#">Cloud</a>	SAP Cloud Platform Tools Latest SDK downloads: <ul style="list-style-type: none"> <li>• Java Web: <a href="#">neo-java-web-sdk-1.133.4.zip</a></li> <li>• Java Web Tomcat 7: <a href="#">neo-java-web-sdk-2.80.4.zip</a></li> <li>• Java Web Tomcat 8: <a href="#">neo-java-web-sdk-3.34.3.zip</a></li> <li>• Java EE 6 Web Profile: <a href="#">neo-javaee6-wp-sdk-2.115.1.zip</a></li> <li>• Java EE 7 Web Profile TomEE 7: <a href="#">neo-javaee7-wp-sdk-1.4.4.zip</a> (Beta)</li> </ul>	✓	✓
<a href="#">Cloud Integration</a>	SAP Cloud Platform Integration Tools	✓	
<a href="#">HANA</a>	SAP HANA Tools	✓	
<a href="#">IdM</a>	SAP Identity Management Configuration Lifecycle Tools	✓	
<a href="#">Mobile</a>	SAP Mobile Tools		
<a href="#">SAPUI5</a>	UI Development Toolkit for HTML5	✓	

### Troubleshooting

If you have any problems installing the software, please check the document [SAP Development Tools for Eclipse Installation: FAQ and Known Issues](#).

`tools.hana.ondemand.com`

As you see Eclipse Neon currently supports packages we need.

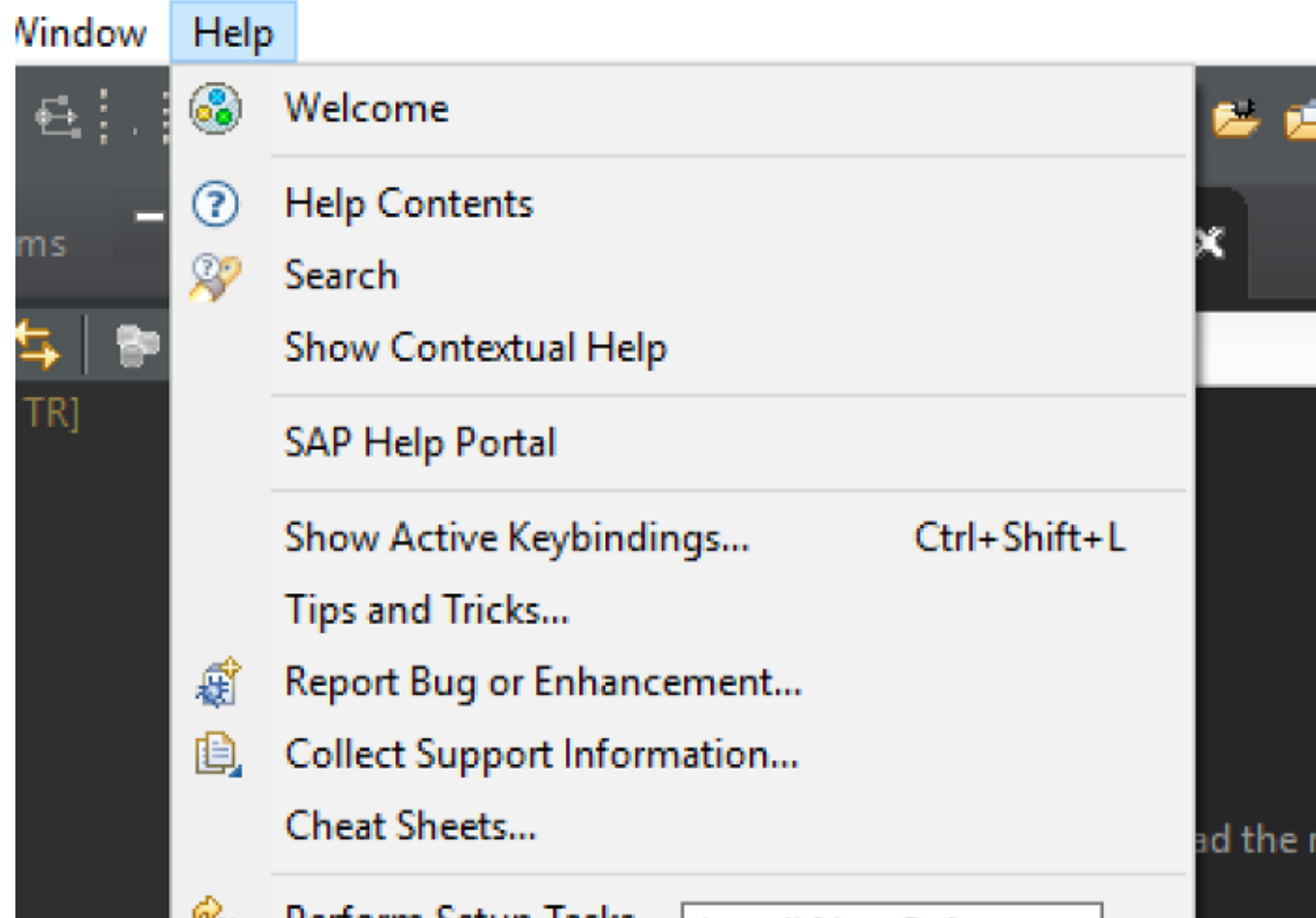
You can download Eclipse Neon link below;

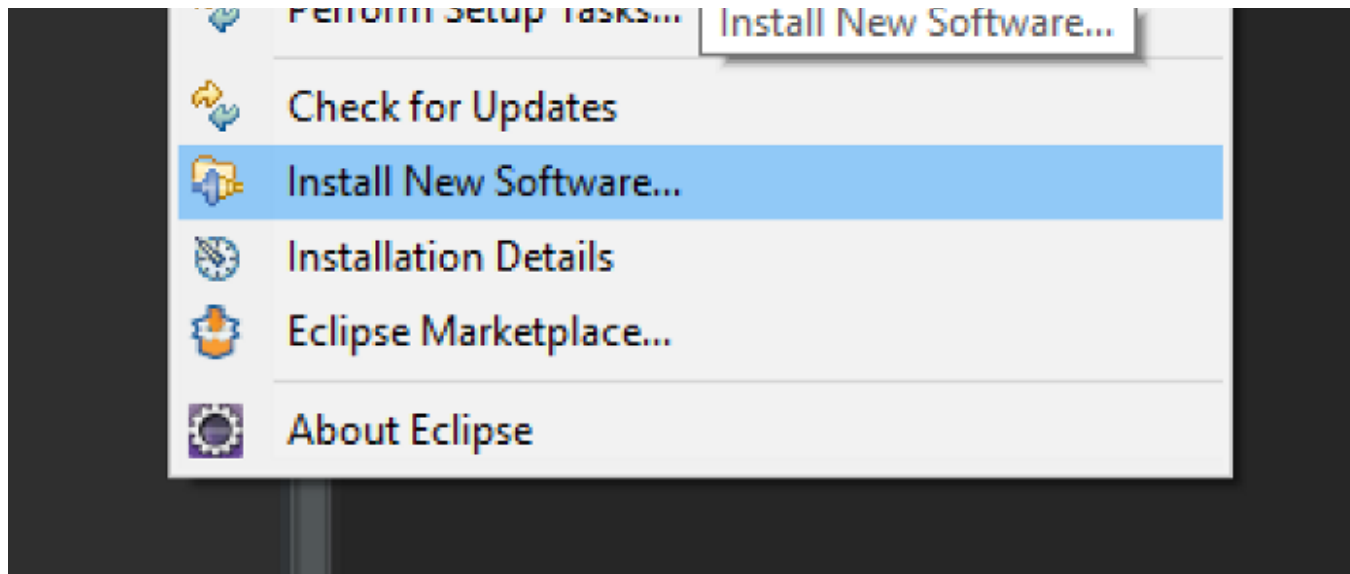
`www.eclipse.org/neon/`

After downloading Eclipse you should import relevant packages from SAP Development Tools.

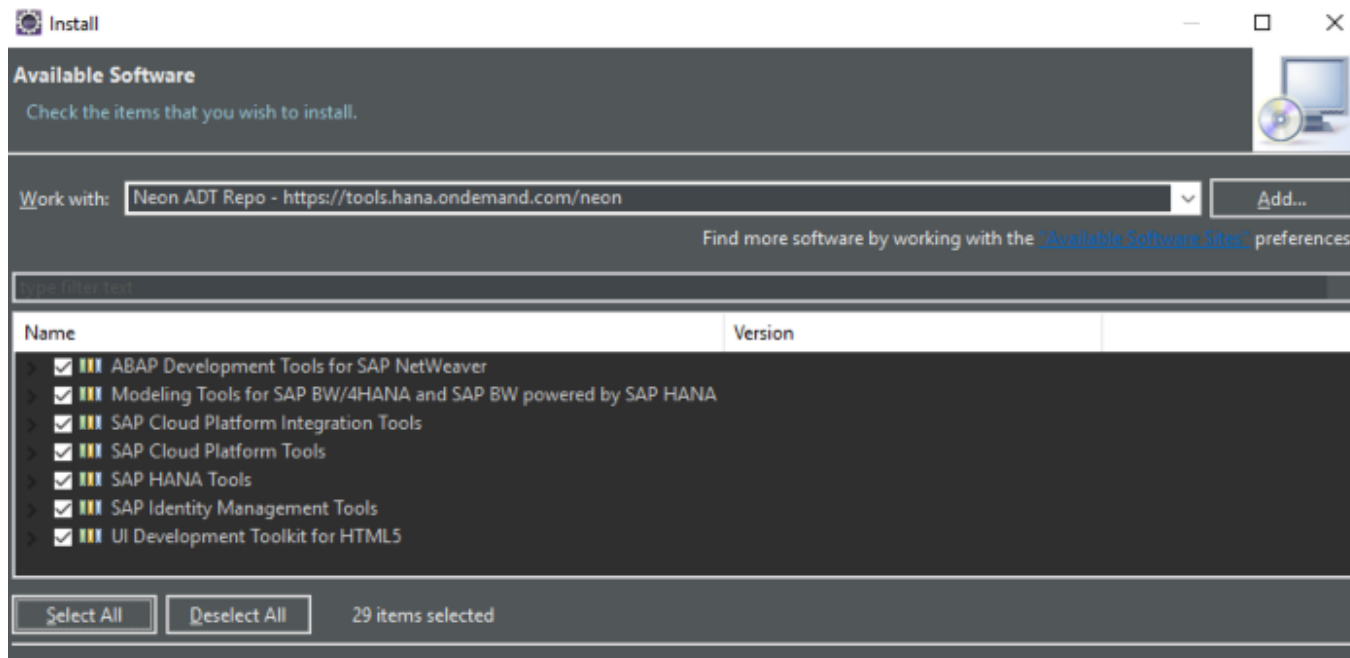
Open Eclipse Neon -> Help -> Install New Software

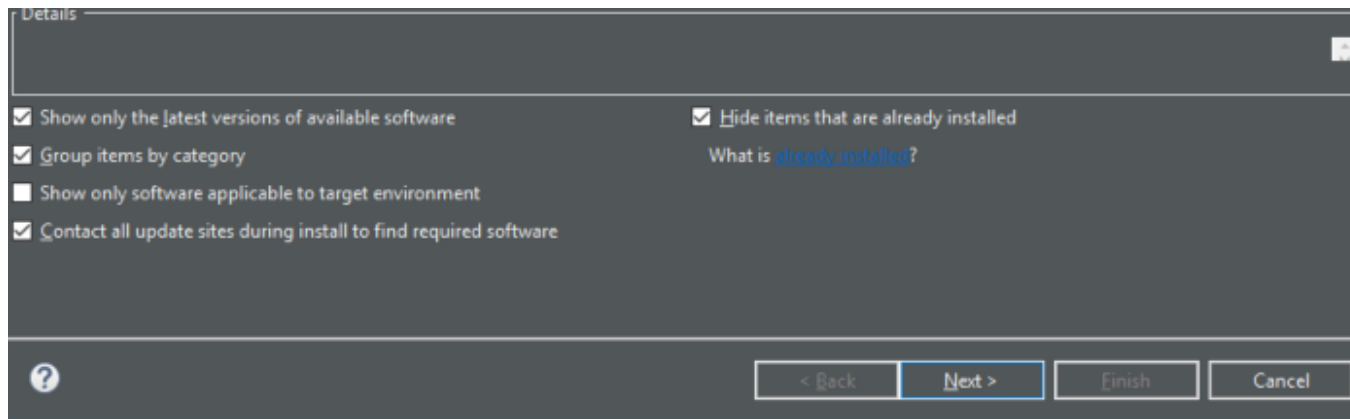
l0\_gyilmaz\_tr/.adt/classlib/classes/zcl\_crm\_cuan\_ce\_ic\_update\_sp7/zcl\_crm\_





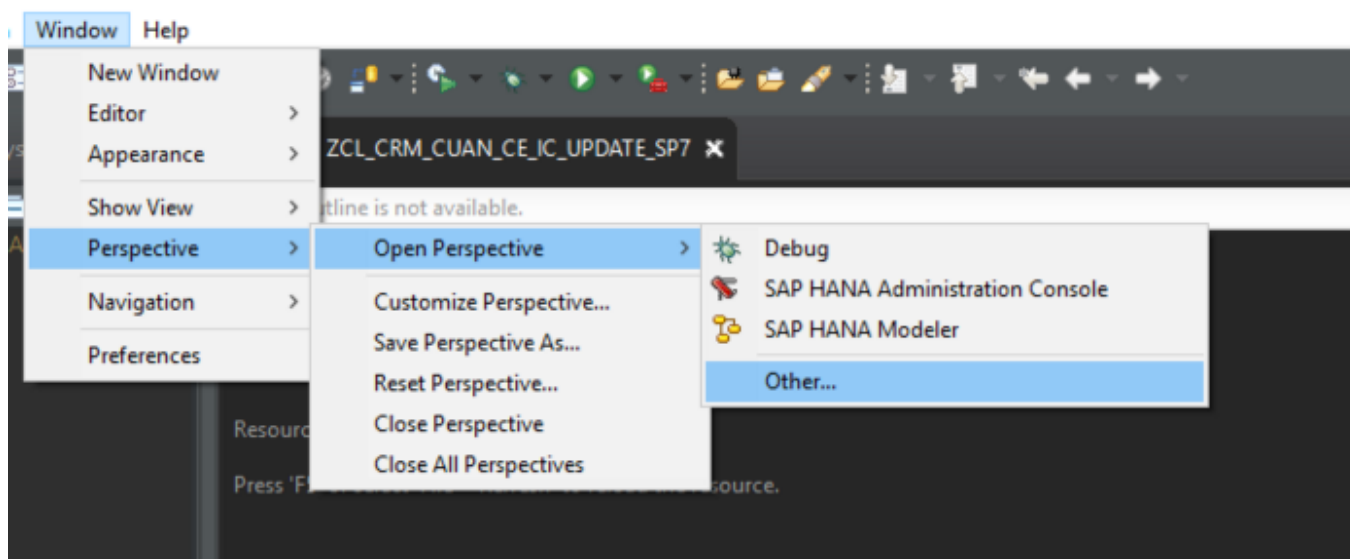
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You can either choose to install all available packages from repository or you can only install SAP HANA Tools package, it is up to you.

After installation of required tools, you should switch your Eclipse perspective to HANA Development to be able to see Systems section.



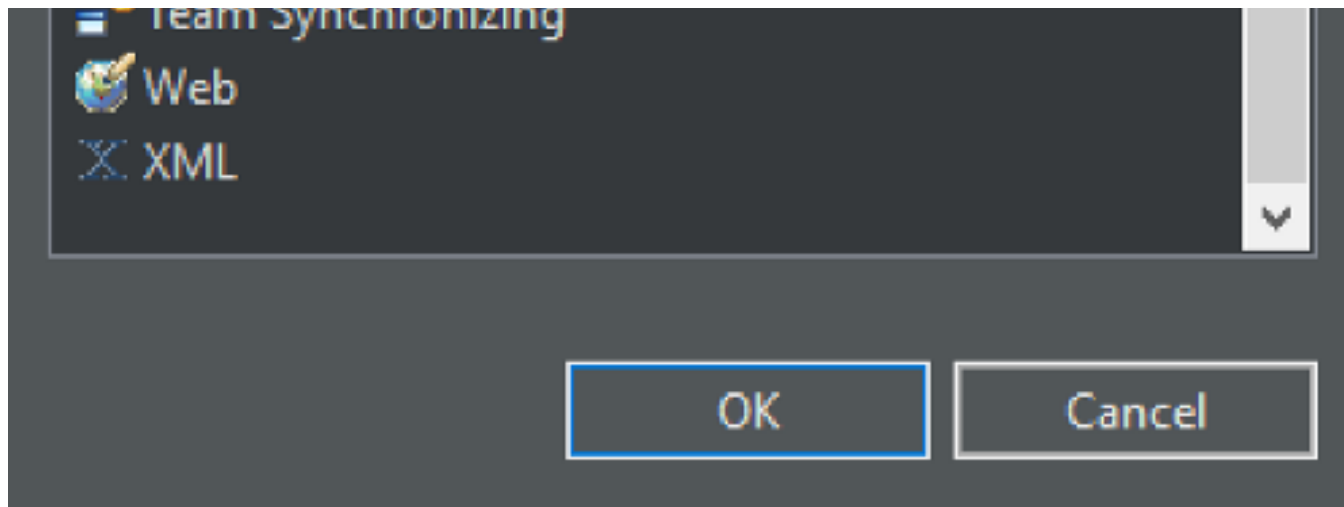
...



Open Perspective



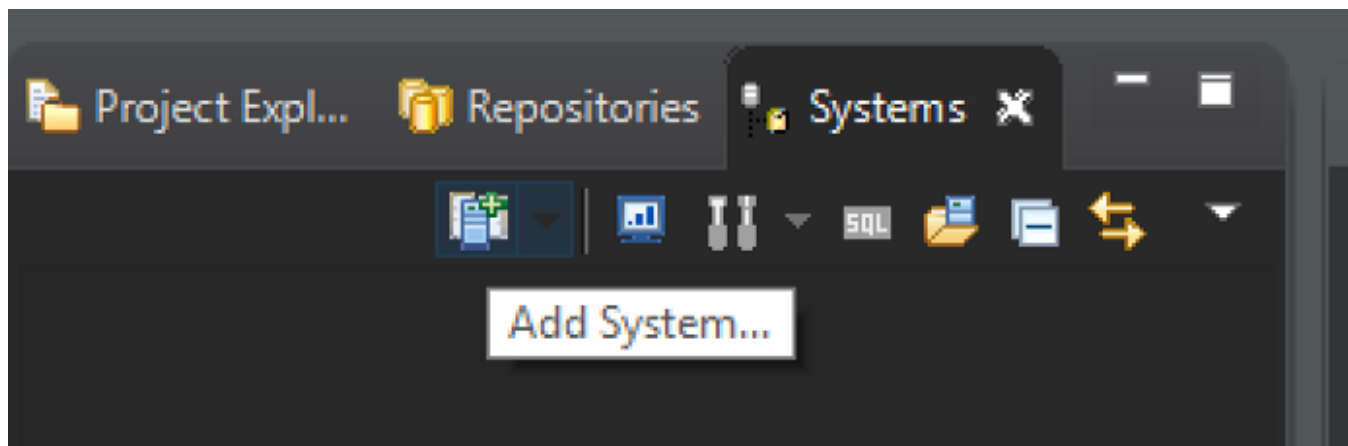
- Java EE (default)
- Java Type Hierarchy
- JavaScript
- JPA
- Planning
- Plug-in Development
- Profiling
- Remote System Explorer
- Resource
- SAP HANA Administration Console
- SAP HANA Development
- SAP HANA Modeler
- SAP HANA PlanViz
- Team Collaboration



After clicking open, you will see available perspectives.

Choose SAP HANA Development.

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Now click on Add System and add details of your HANA DB.

Key Point : Your HANA DB  
IP and instance is  
different than  
your SAP NW server, so  
you should get details  
and necessary user-password  
details from your Basis  
consultant.

Enter necessary details of your HANA details and connect to system.

 System

### **Specify System**

Specify the host name and instance number of the system.





Host Name:

10.10.10.10

Instance Number:

11

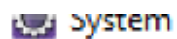
Mode:

☒ Single container

☐ Multiple containers

☐ Tenant database

Name:



## Connection Properties

Specify the properties for connecting to the system.

Authentication can be carried out using the current operating system user or a valid SAP HANA database user

☐ Authentication by current operating system user

☒ Authentication by database user

User Name: GYILMAZ

Password:

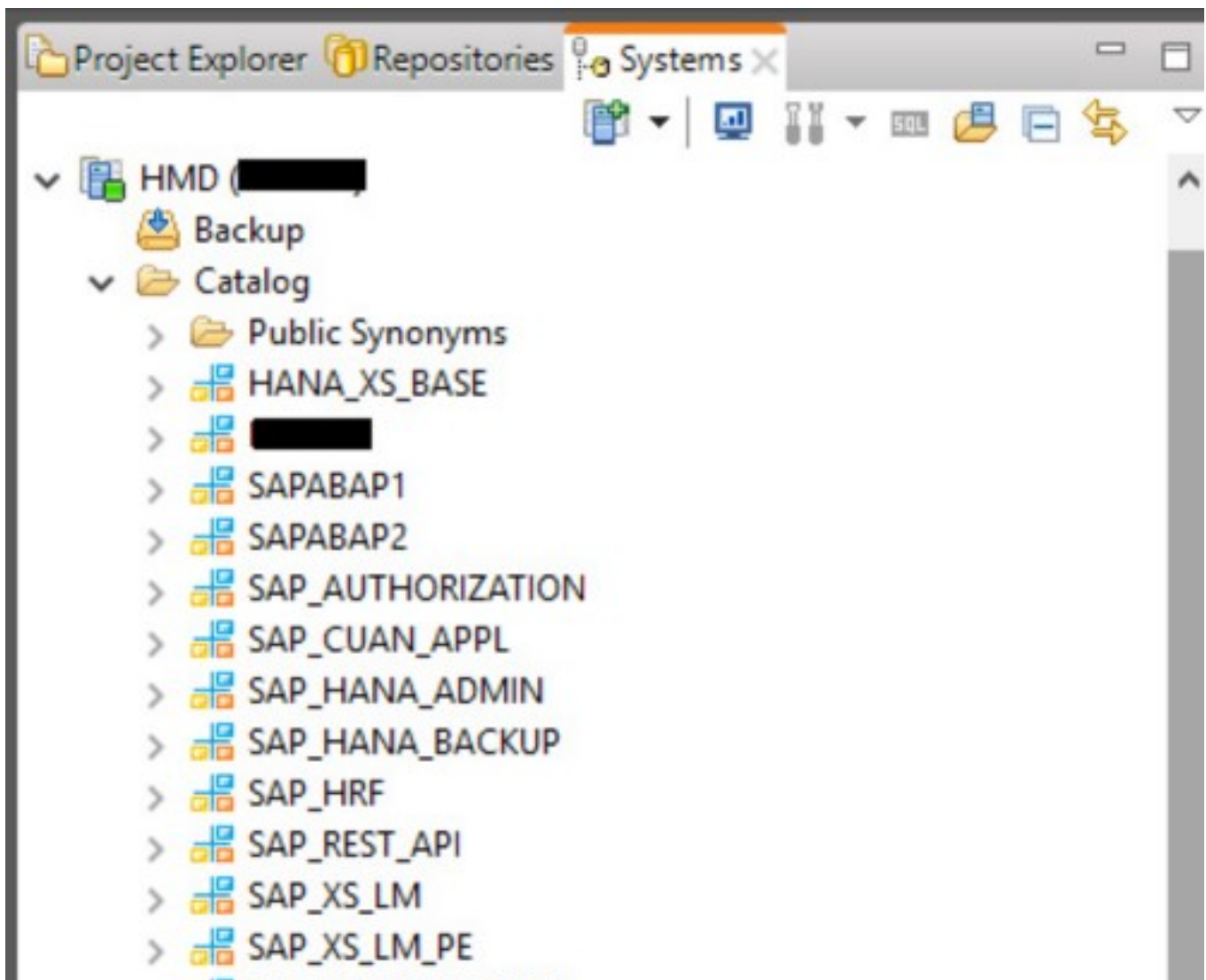
••••••••























☒ Store user name and password in [secure storage](#)

☐ Connect using SSL

☒ Enable SAP start service connection

☐ Use HTTPS



- >  SAP\_XS\_LM\_PE\_TMP
- >  SAP\_XS\_USAGE
- >  SYS
- >  SYSTEM
- >  UIS
- >  \_SYS\_AFL
- >  \_SYS\_BI
- >  \_SYS\_BIC
- >  \_SYS\_REPO
- >  \_SYS\_RT
- >  \_SYS\_SECURITY
- >  \_SYS\_STATISTICS
- >  \_SYS\_TASK
- >  \_SYS\_XS
- ▼  Content
  - >  HRF\_Rule\_Services
  - >  HRF\_Rules
  - >  public
  - >  sap
  - >  system-local
  - >  XSDemo
  - >  ZCRM\_MARKETING

Most critical point of this configuration guide is the Security section. If you don't have necessary security permissions you cannot do any operations on system.

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The screenshot shows the SAP HANA User Parameters configuration window. The 'User' tab is selected, and the 'User Parameters' sub-tab is active. The 'Authentication' section is expanded, showing options for Password, Kerberos, SAML, and X509. The 'Valid From' and 'Valid Until' fields are visible. Below the 'User Parameters' tab, the 'Object Privileges' tab is selected, showing a list of catalog objects and their grantors. The 'Privileges for 'SAPABAP1'' section is expanded, showing a list of privileges and their grantability to others.

**User Parameters**

☐ Disable ODBC/JDBC access

**Authentication**

☒ Password  
Password\*:  Confirm\*:   
Force password change on next logon: ☒ Yes ☐ No

☐ Kerberos  
External ID\*:

☐ SAML [Configure](#) ☐ SAP Logon Ticket

☐ X509 [Configure](#) ☐ SAP Assertion Ticket

Valid From:  Valid Until:

Session Client:

**Object Privileges**

Catalog Object	Grantor
SAPABAP1	SAPABAP1
SAPABAP2	SAPABAP2
	SAPABAP1
	SAPABAP1
	SAPABAP1
	SAPABAP1
	SAPABAP1
	SAPABAP1
	SAPABAP1
	SAPABAP1

**Privileges for 'SAPABAP1'**

Privilege	Grantable to Others
<input checked="" type="checkbox"/> ALTER	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> CREATE ANY	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> CREATE TEMPORARY TABLE	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> CREATE VIRTUAL FUNCTION PACKAGE	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> DEBUG	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> DELETE	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> DROP	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> EXECUTE	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> INDEX	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> INSERT	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> REFERENCES	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> SELECT	<input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="checkbox"/> SELECT CDS METADATA	<input checked="" type="radio"/> Yes <input type="radio"/> No

In next chapter of this series we will talk about what is our options on HANA databases to help our development process. See you next time.

Happy coding!

[Eclipse](#)

[Abap](#)

[Hana](#)

[Sapui5](#)

[Sap](#)

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