

SAP C4C Technical Training – DAY 1

Unit 1: SAP C4C : OVERVIEW



Lesson 1 : SAP C4C Overview and System Architecture



Lesson 2 : IDE Introduction and Setup



Lesson 3 : Quarterly Schedule

Lesson 1 : SAP C4C Overview and System Architecture

What is SAP C4C ?

- SAP C4C is the abbreviation for SAP Cloud for Customer.
- C4C is a cloud-based CRM (Customer Relationship Management) software.
- C4C is a software as a **service (SaaS) platform**.
- C4C with a mobile-first strategy to match the demands of today's sales and service professionals who need information about customers anytime and in any location.
- SAP C4C is available on a per user subscription basis.

Year	Date	History
2011	May 17	SAP announces the launch of SAP Sales OnDemand, its first cloud-based CRM solution.
	Oct-11	SAP Sales OnDemand is rebranded as SAP Cloud for Customer (C4C), incorporating sales, service, and marketing functionalities into a single cloud-based platform.
2012-2018		Continuous evolution and enhancement of SAP C4C with additional functionalities, including social media integration, mobile app support, and advanced analytics.
2020		SAP rebrands SAP Customer Experience suite as SAP Business Technology Platform (SAP BTP), reflecting its integration with SAP Cloud Platform and other technologies.
2021-2024		Continuous innovation and enhancement of SAP C4C and SAP BTP with updates to user experience, performance, and security. Integration with emerging technologies such as AI, ML, IoT for enhanced customer insights and automation. Expansion of industry-specific solutions and capabilities to address evolving customer needs and market demands.

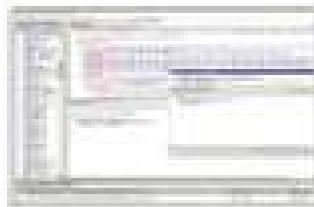
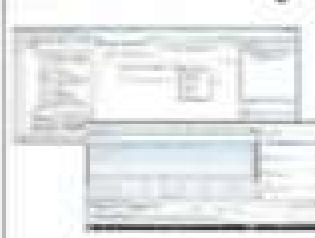
History of SAP C4C

➤ Initial Launch (2011):

Comparison with Traditional CRM

Aspect	SAP C4C	Traditional CRM
Deployment	Cloud-based	On-premise
Accessibility	Accessible from anywhere with internet	Restricted to office network
Scalability	Easily scalable with growing business needs	Limited scalability, may require hardware upgrades
Integration	Seamless integration with other SAP solutions and third-party applications	Complex and costly integration efforts
Flexibility	Highly configurable and customizable	Limited customization options
Maintenance	Managed by SAP, automatic updates	Requires manual maintenance and updates
Functionality	Comprehensive suite covering sales, service, marketing, and analytics	Separate solutions for sales, service, and marketing
Collaboration	Facilitates collaboration across departments	Limited collaboration capabilities
Analytics	Built-in analytics and reporting tools	Limited or basic analytics capabilities
Cost	Subscription-based pricing model	Upfront investment in licenses and hardware

C4C Key Features

Business Objects  Business Scripting Language	User Interfaces  Pattern-based For Smartphones, Tablets, Desktops	Web Services  Provider, Consumer SOAP / REST	Reports & Dashboards 	Forms, Excel Up/Download 
Approval, Email & Notifications 	Business Configuration 	Mass Data Runs 	Integration & Reuse of SAP Public Objects 	Extension Fields Extension Logic for SAP Public Objects 

SAP C4C Sub Modules

SAP Cloud for Customer (C4C) encompasses various sub-modules, each designed to address specific business functions and processes within the C4C domain. Here are some key sub-modules commonly found in SAP C4C:

Sales Module: Manages the end-to-end sales process, from lead generation to order fulfillment.

- Lead Management
- Opportunity Management
- Sales Quotes and Orders
- Sales Forecasting

Service Module: Handles customer service activities, including incident management and service ticket resolution.

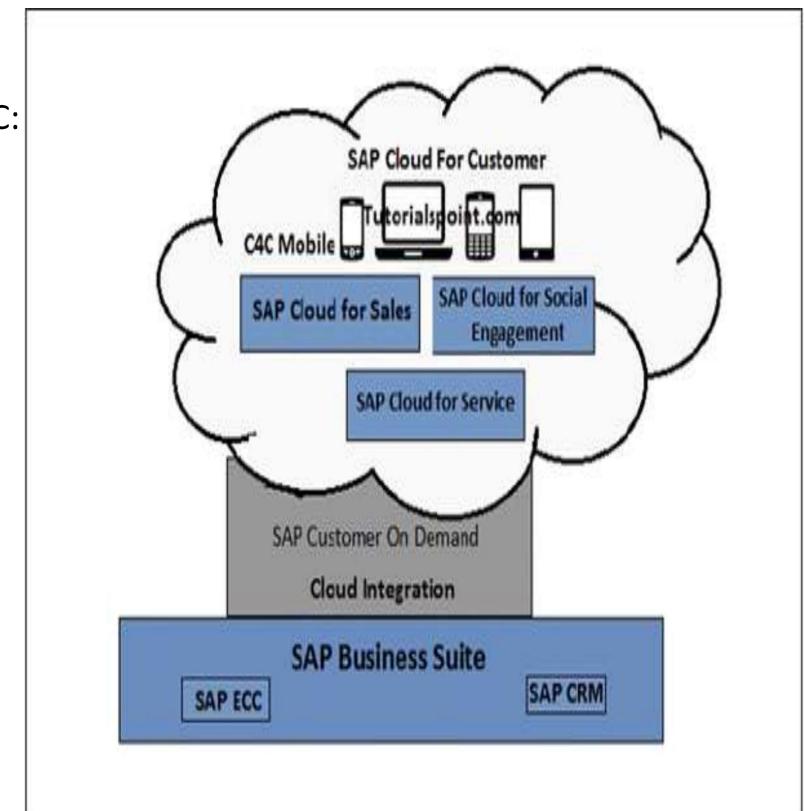
- Service Requests
- Case Management
- Knowledge Base Access
- Customer Self-Service Portals

Marketing Module: Empowers marketing teams to execute campaigns, track performance, and analyze ROI.

- Campaign Management
- Lead Management
- Segmentation
- Marketing Analytics

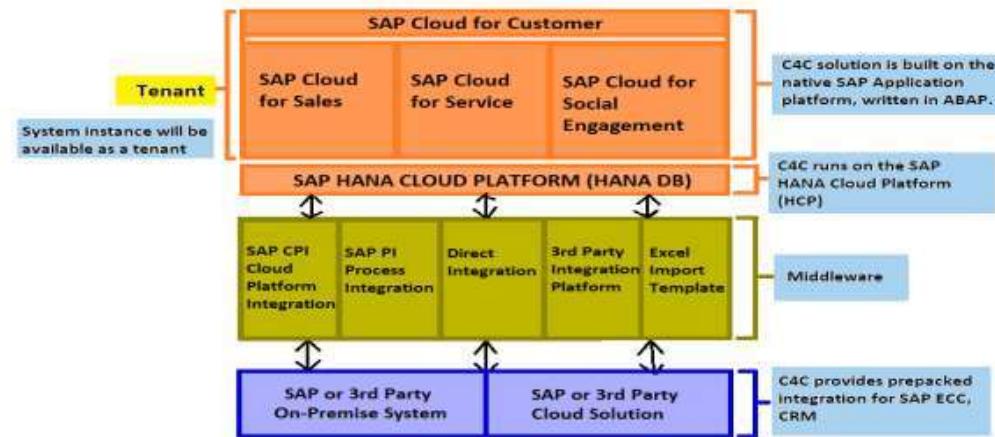
Social Engagement Module: Monitors and engages with customers on social media platforms to track brand sentiment and manage interactions.

- Social Media Monitoring
- Customer Engagement
- Social Analytics



SAP C4C Architecture

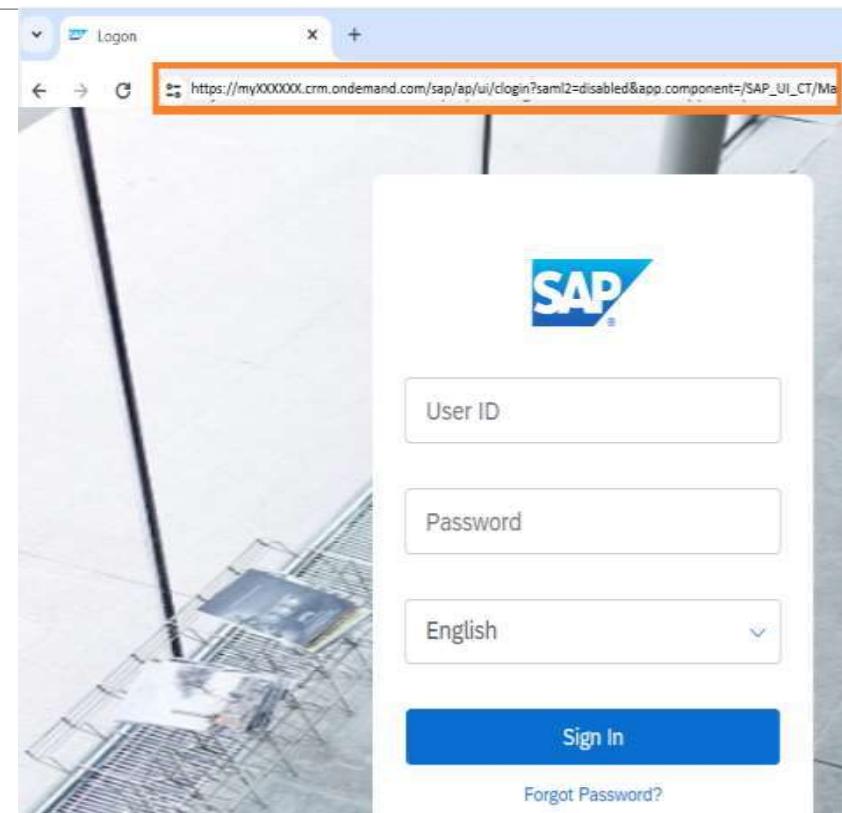
- SAP Hybris C4C runs on its own platform which makes uses of HANA DB.
- The SAP Cloud Applications Studio is a PaaS based software development kit (SDK) which enables SAP Partners to adapt and enhance the solution capabilities of SAP's cloud solutions including SAP Hybris Cloud for Customer



Understanding SAP C4C Tenant

What is Tenant ?

- When you first sign up for SAP Cloud for Customer, you are assigned a "tenant" or a System, via a unique URL (<https://myXXXXXX.crm.on-demand.com>), with an initial credentials via email.
- Every tenant URL comes with a unique tenant ID of six digits number-XXXXXX. Example: <https://my123456.crm.ondemand.com>
- The six-digit number is the id assigned the tenant space procedure by the client from SAP.
- If a client purchases three tenants, there will be three unique tenant IDs for that buyer.



SAP C4C Tenant Landscape

The landscape of SAP C4C (SAP Cloud for Customer) Tenant refers to the arrangement and organization of different environments within the SAP C4C system.

Production Environment:

- Live environment for day-to-day business operations.
- Used for managing customer relationships, sales, service requests, and marketing campaigns.
- Users interact with real data and transactions.
- Ensures stability, security, and high performance.

Quality Assurance (QA) Environment:

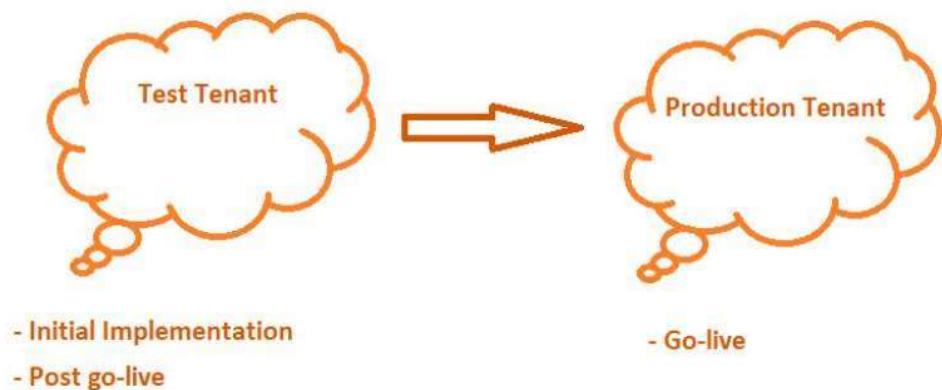
- Environment for testing changes, updates, and configurations.
- Ensures new features, customizations, and integrations work as expected.
- Identifies and resolves issues before impacting end-users.

Development Environment:

- Space for developers to work on customizations and enhancements.
- Used for designing and building new functionality, reports, workflows, and integrations.
- Developers utilize tools and sandbox environments for experimentation without affecting QA or production.



Tenant Subscription



When Customer approaches SAP for C4C subscription, as standard SAP will provide two tenant:

1. Test tenant
2. Production tenant

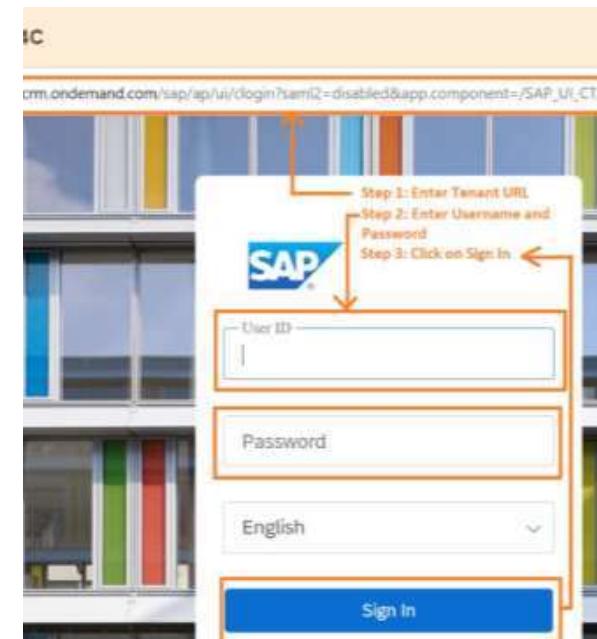
Test tenant: A test tenant is where the initial implementation of your business solution is done and request SAP to create the Production Tenant.

Production tenant: When the implementation is ready for go-live, you would deploy to the production tenant. The production tenant is the one you will use for your daily business processes.

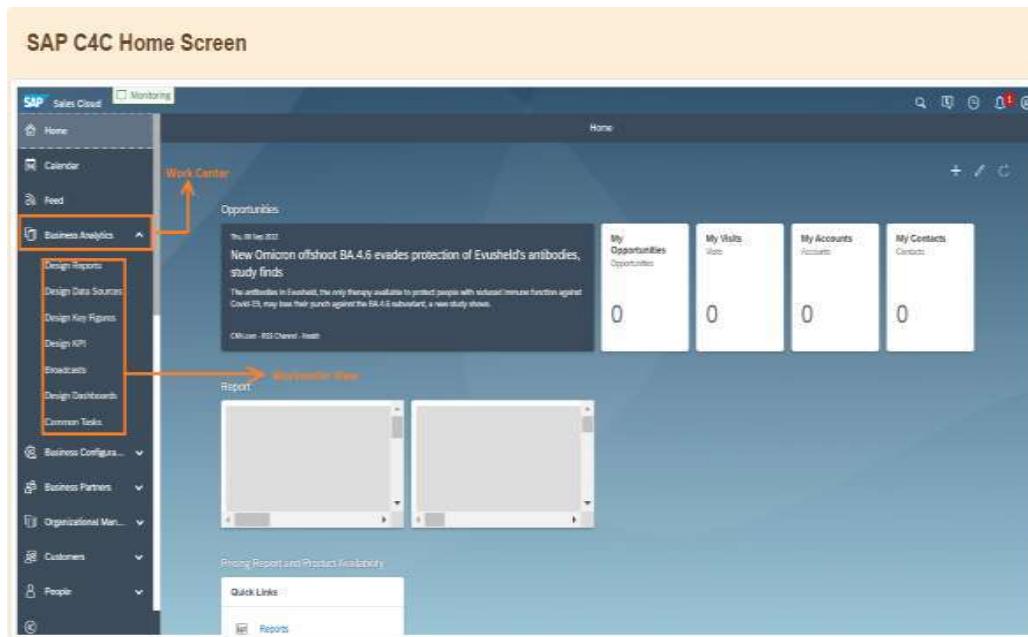
Note: Please be aware, when a Customer approaches SAP for a production tenant SAP would give a test tenant by a free of cost. If you need additional test tenant, you need to purchase additionally.

SAP C4C User Interface

- **Fiori Client UI:** SAP Cloud for Customer (C4C) utilizes the Fiori client UI, offering a modern and intuitive user experience designed for seamless interaction across devices.
- **Accessing Fiori Client UI:**
 - Step 1: Open any web browser and navigate to your tenant URL. Example: <https://my123456.crm.ondemand.com>
 - Step 2: Enter your username and password provided during account setup.
 - Step 3: Click on the "Sign In" button to proceed.
- **Landing Page:** Upon successful login, you will be directed to the Fiori client UI of SAP C4C, providing a streamlined and responsive interface for managing customer relationships.



C4C Workcenter and Workcenter view



SAP Cloud for Customer user interface layout is organized by work center and work center views.

- **Work centers:** A work area that is grouped by function. work centers vary depending on the access rights given by the administrator.
- **Work center view:** A subdivision of a work center. When you choose a work center, the default view will always be the first work center view on the screen. For an example, if you choose the Customers work center, then Accounts will be shown as the default view.

Lesson 2 : IDE Introduction and Setup

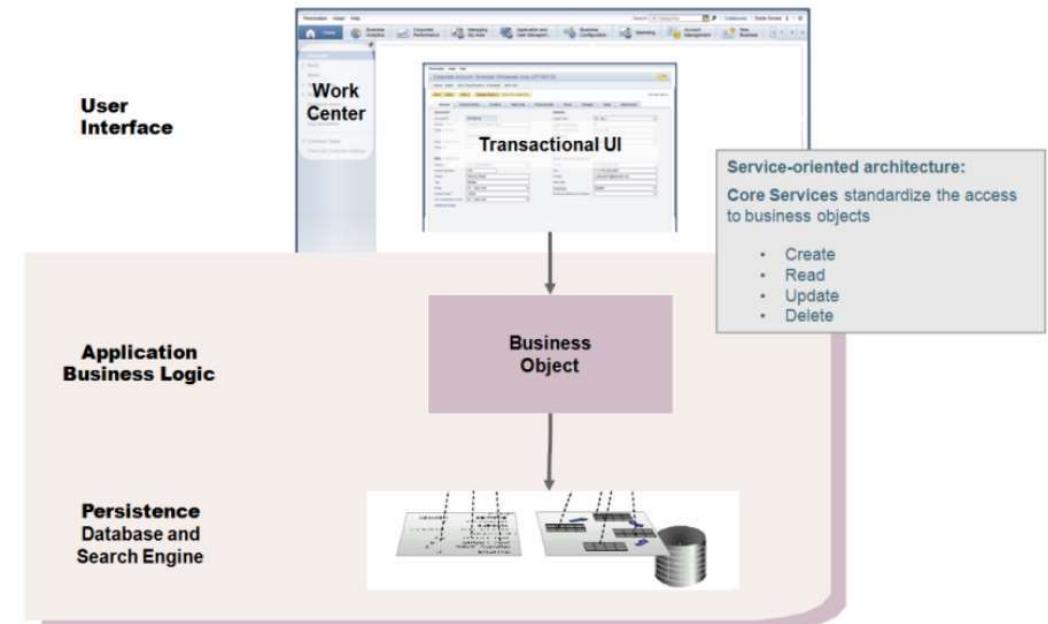
What is SAP C4C Cloud Application Studio?

- SAP Cloud Application Studio is a cloud-based development environment that can be used to enhance/implement new features of SAP Cloud Solution.
- **Purpose:** Development environment for extending and customizing SAP Cloud for Customer (C4C) solutions. Using SAP Cloud Application studio we can define new objects, add new extension fields, redesign the standard screens, create report, create web service (SOAP/REST) and so on.
- **Customization:** Enables developers to tailor existing functionalities and extend standard capabilities to meet specific business needs.
- **Technologies:** Supports ABSL and BODL for building custom Objects.
- **Integration:** Facilitates seamless integration with other SAP and non-SAP systems through pre-built capabilities and APIs.
- **Lifecycle Management:** Provides tools for managing the entire lifecycle of customizations, including development, testing, deployment, and maintenance.

Architecture of the SAP Cloud Solution 3-Tier Model

SAP Cloud Solutions follow a 3-tier architecture for scalability and performance.

- **Presentation Layer:**
 - User interface for interaction.
 - Web-based and mobile interfaces.
- **Application Layer:**
 - Core business logic.
 - Data validation and workflow management.
- **Persistence Layer:**
 - Data storage and retrieval.
 - Ensures data consistency and scalability.



Installing SAP Cloud Applications Studio

Go to the SAP Software Download Center at <https://support.sap.com/swdc>.

2. Click Installations & Upgrades Access downloads . The system opens the Software Downloads window.
3. In the Search field, enter Studio XXXX where XXXX stands for the studio release version. The system gives you a list of the available studio versions. .
4. Click the required SAP CLOUD APP STUDIO product version. The system takes you to your company's download catalog.
5. Click the Downloads tab, select your solution, and click the arrow icon. Choose the required solution and click Download Basket from the list of available actions.

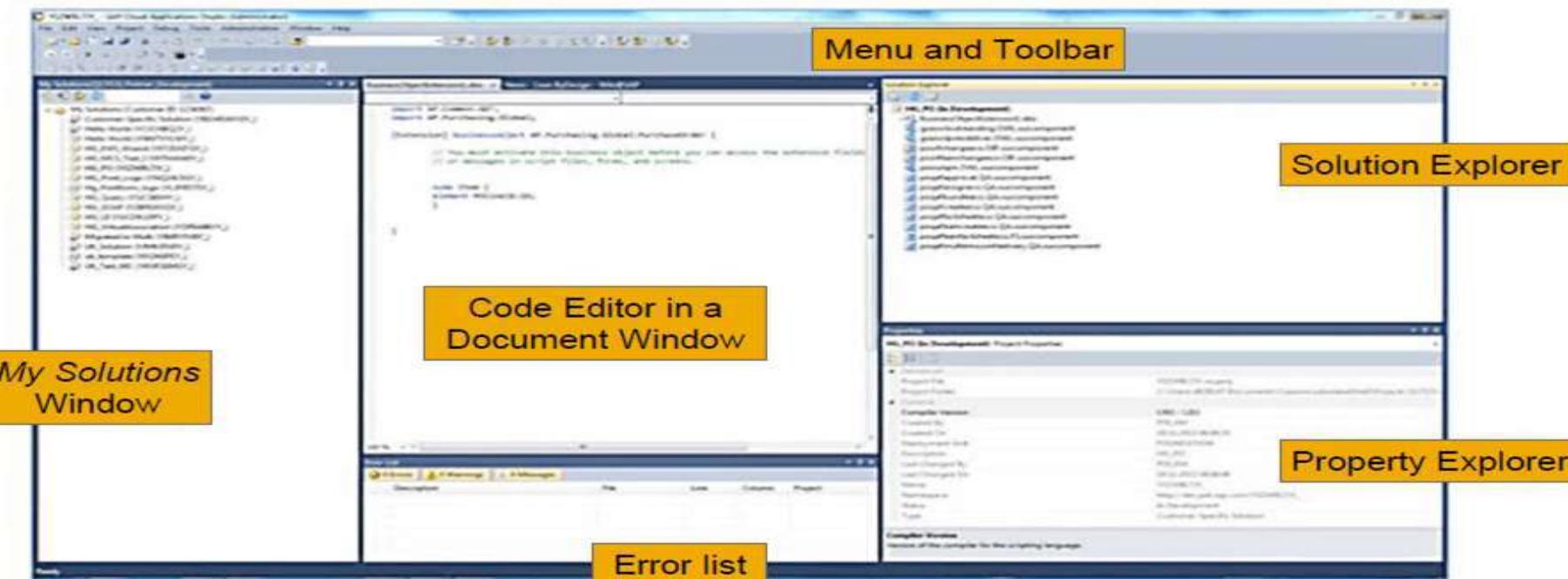
Installing SAP Cloud Applications Studio(current version 2402)

Prerequisites

- To download the studio from the SAP Software Download Center, you need a valid S user.
- You are using one of the following operating systems:
 - Microsoft Windows XP
 - Microsoft Windows Vista
 - Microsoft Windows 7 or higher
- You have installed the following:
 - Relevant version of Microsoft .NET Framework
 - Relevant version of Microsoft Visual Studio 2010 Shell (Isolated)
 - Relevant version of Microsoft Silverlight

Integrated Development Environment(IDE)

The development tools provided are presented in an integrated development environment (IDE) based on Microsoft Visual Studio.



My Solution Window

The My Solutions tool window provides functions that allow you to create solutions and to access the repository. You must log on to a repository system to create and edit solutions in the studio.

When you open the studio, you first log on to the repository. By default, the My Solutions tool window is displayed on the left of the developer desktop. You can also open the My Solutions window in the View menu.

You can access the following functions from the My Solutions tool window:

- Log On
- Create Solution
- Refresh
- Search
- Log Of
- Delete Solution
- Open Solution
- Solution Properties



Solution Explorer

The Solution Explorer tool window displays a solution and the project items created for this solution, for example, a business object or a screen. In the Solution Explorer, you can open items for editing and add new items to a solution. You can also search for files within a solution.

At the top of the Solution Explorer window, you can:

- view the properties of your solution and items,
- Add a new item
- Refresh your solution,
- Search for specific files within i
- Create correction and close cor



Create a correction during production bug fix



Close a correction during production bug fix



Properties Window

The Properties window displays information about the item in your solution that is currently selected in the Solution Explorer.

Features

- Project File
- Project Folder
- Compiler Version
- Created By
- Created On
- Deployment Unit
- Last Changed By
- Last Changed On
- Name
- Namespace
- Status
- Type

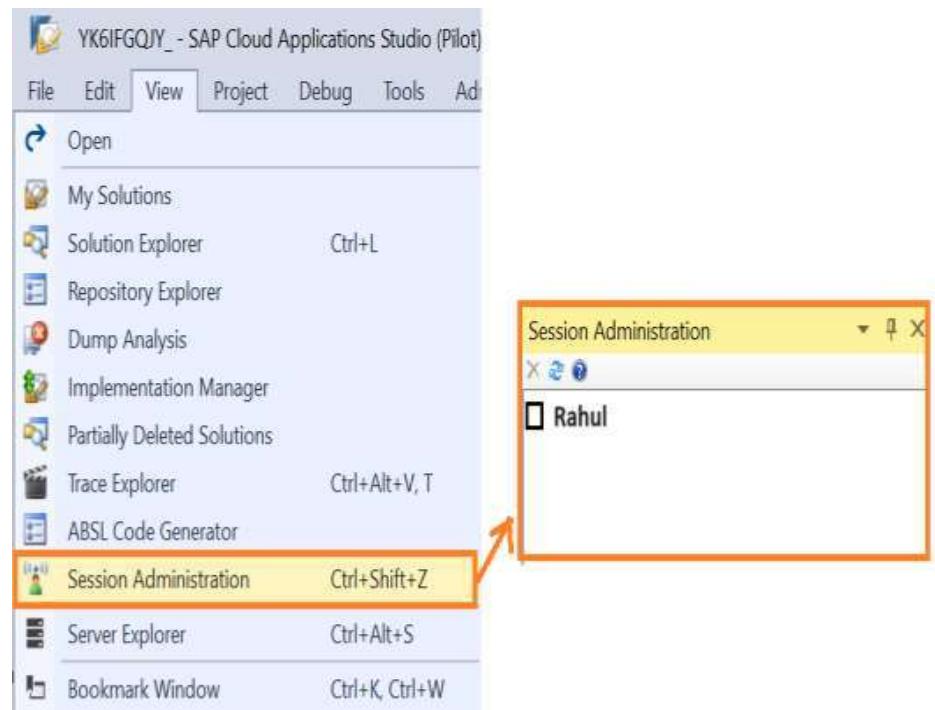
Session Administration

Locks occur when an item, such as a business object, is being edited by another user or from another session. As an administrator, you can delete locks for other users; all other users can only delete their own sessions and corresponding locks.

Make sure that the user whose session was deleted logs off the system

If you are deleting your own session, you must also log off immediately afterwards.

Note: Deletion of locks may result in the loss of changes made by the locking user and should only be carried out when necessary.



Features of Cloud Application Studio

 Integrated Development Environment

 Lightweight Scripting Language **BODL** and **ABSL** Language

 Model-Based Development

 Designer for Desktop and Mobile User Interfaces

 Integration with Services

 Translation Support

 Debugging and Tracing

Integrated Development Environment

Integrated Development Environment (IDE):

An IDE is a software application that streamlines the software development process by providing a comprehensive suite of tools and features within a unified interface. It includes essential components such as a code editor, debugging tools, build automation, and version control integration.

Lightweight Scripting Language

The scripting language is used to define business objects and business object extensions as well as to implement the business logic for cloud partner solutions. This lightweight language is easy to learn and to use with its focused set of features.

➤ **Syntax for Business Object Definitions.**

- Clear and concise syntax for defining business objects, including attributes, relationships, and behaviours.
- Custom business objects creation for modelling organization processes and workflows.

➤ **Syntax for Business Object Extension Definitions.**

- Seamless extension of existing business objects to add custom fields, logic, and functionality.
- Modification and enhancement of standard C4C business objects to meet specific business requirements.

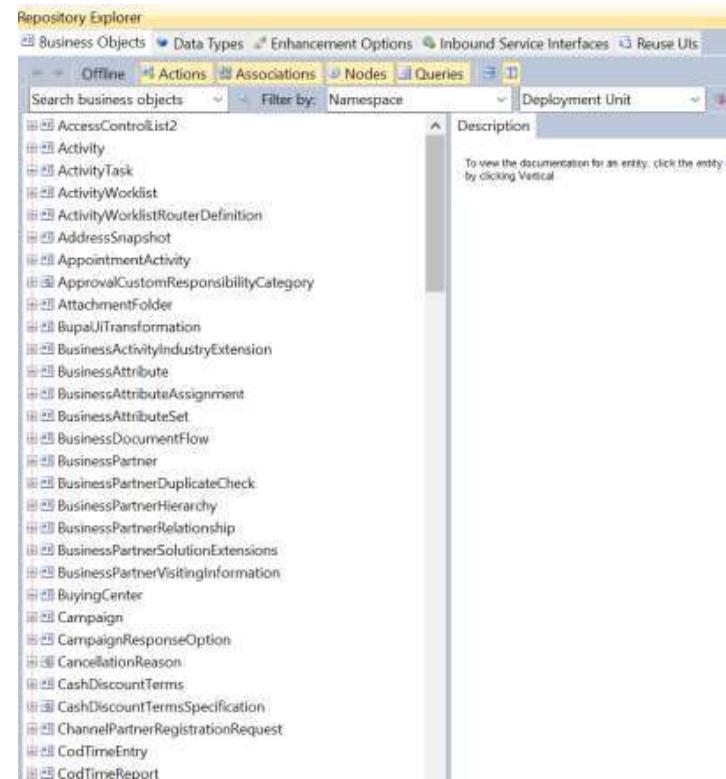
➤ **Syntax for Implementation of Business Logic.**

- Primary use of the scripting language within C4C solutions.
- Automation of processes, enforcement of business rules, and handling of events triggered by user actions or system Events

Repository Explorer

The Repository Explorer tool window displays SAP content that is released with the public solution model (PSM) such as business objects, data types, enhancement options, inbound service interfaces, and reuse UIs. You can explore the content to gain an understanding of the repository structure and the business context and use of SAP content, which you can reuse and enhance in your solution.

- Business Objects Tab
- Data Types Tab
- Enhancement Options Tab
- Inbound Service Interfaces Tab
- Reuse UIs Tab



Designer for Desktop and Mobile User Interfaces

You use the UI designer to create new and replace existing user interfaces (UI). You can create and modify UI components using floorplans, patterns, and UI controls.

Integration with Services

- You can generate web services to access SAP business objects and the business objects of add-on solutions. You can also set up communication between business objects residing in different deployment units and import external XML data into business objects.

- You can also integrate data from the SAP cloud solution with data provided by an online web service or application by creating mashups. Mashups can include web searches, company or industry-specific business information or online map searches.

Translation Support

You can extract text from certain project items and export it in an XML-based file format for translation into one of the languages supported by the SAP standard cloud solution.

End-to-End Software Lifecycle Management

Integration with the SAP cloud solution provides a strong lifecycle management backbone that supports the full life cycle of solutions.

The studio supports the full end-to-end lifecycle management of customer-specific solutions. This includes developing, testing, and deploying your solution as well as creating patches to deliver updates to your customer.

Quarterly Schedule

Before downloading and installing SAP Cloud application studio it is important to know the Application studio release version. SAP Cloud for Customer is updated on a Quarterly Schedule and has 4 digit release number e.g 2402.

The number is broken down as:

- 24 : year of the release, every one year.
- 02 : month of the release, every 3 months.

Below is Quarterly schedule Months

Enhanced and Updated on a Quarterly Schedule



THANK YOU

