

# S4H00

## SAP S/4HANA Overview

### PARTICIPANT HANDBOOK INSTRUCTOR-LED TRAINING

Course Version: 20  
Course Duration: 3 Day(s)  
Material Number: 50158531



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# Typographic Conventions

American English is the standard used in this handbook.

The following typographic conventions are also used.

This information is displayed in the instructor's presentation



Demonstration



Procedure



Warning or Caution



Hint



Related or Additional Information



Facilitated Discussion



User interface control

*Example text*

Window title

*Example text*

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# Course Overview

## TARGET AUDIENCE

This course is intended for the following audiences:

- Application Consultant
- Support Consultant
- Technology Consultant
- Project Manager
- Systems Architect
- Executive
- Business User
- Super / Key / Power User



## Lesson 1

Describing SAP S/4HANA

3

### UNIT OBJECTIVES

- Describe SAP S/4HANA



# Unit 1

## Lesson 1

# Describing SAP S/4HANA



## LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe SAP S/4HANA

## SAP S/4HANA Overview



### The World is Changing

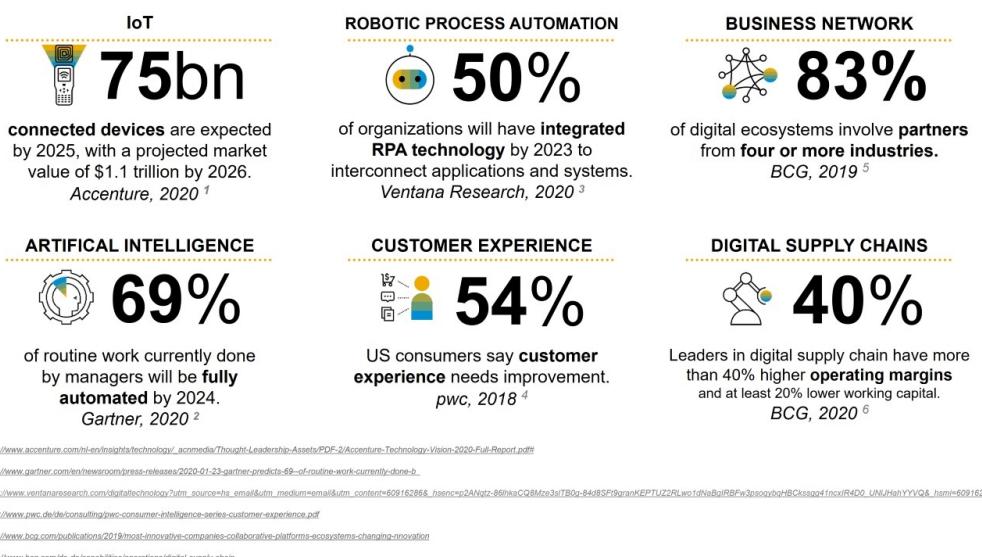


Figure 1: The World Is Changing

The numbers shown in the figure, *The World is Changing*, illustrate that the world around us is getting more complex. This complexity is due to the following factors:

- Exponential growth of digital information (social, mobile, big data).
- Globalization and the spread of business networks.
- Internet of Things, or Internet of Everything.

The response so far has been to add more complex business processes, organizations, and software solutions.

The world has continued to change and so to have business challenges and opportunities. Today's world is digital and networked.

- The pace of data generation is accelerating – in the last two years, 90% of world data has been generated.

- Over the next two years, there will be 40% growth in the adoption of business networks.
- By the end of the decade, 212 billion things, from cars, to heavy equipment, to consumer appliances, will be connected to the internet.
- By 2020, there will be 9 billion mobile users in the world.
- Last year alone, 51% of workloads were processed in the cloud. That amount will only grow for the foreseeable future.

The increase in the use of mobile devices, social media, and cloud technologies, and the amount of data they generate have transformed the way we live and work. In fact, 61% of companies report that the majority of their people use smart devices for everything from e-mail to project management to content creation.

Machine learning (ML) is the study of algorithms and statistical models that computer systems use to progressively improve their performance on a specific task. ML algorithms build a mathematical model of sample data, known as training data, in order to make predictions or decisions without being explicitly programmed to perform the task.

Artificial intelligence (AI) is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans. Some of the activities computers with AI are designed for include:

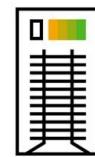
- Speech recognition
- Learning
- Planning
- Problem solving

While all of these advancements have improved our lives and provided us with greater opportunities for innovation than ever before, they have also accelerated the rise of an entirely new problem to contend with. That is the unprecedented and crippling complexity that suffocates innovation.

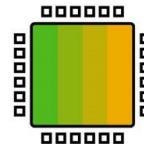
The world may be getting smarter, but it has not gotten any easier. Massive consumerization of IT means online purchasing, banking, and completing online applications has become commonplace. Think about how much digital data you created today. Perhaps it is of interest to some organizations, but they can only integrate it with their core business processes if they run SAP S/4HANA. Data is extremely valuable.



Powerful multi-core processors



Huge/affordable memory



Optimized cache



Cloud

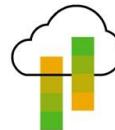


Figure 2: Advances in Technology

In the last few years, there have been significant advances in technology that application developers can take advantage of to build smarter and more powerful applications. Examples include the following:

- Multi-core processors enabling parallelism of tasks means more throughput of data and faster processing to give us real-time responses.
- Big memory enables us to fit an entire organization's database in memory, which means we lose the mechanical spinning disk and the latency it brings.
- Advances in the design of the on-board cache means that data can pass between memory and CPU cores rapidly. In the past, even with large memory, this was a bottleneck as the hungry CPUs demanded more data and the journey from memory to CPU was not optimal.
- Increasing your server landscape means you can slot more servers into your landscape to add more processing power or memory to scale to any size.



#### Animation: Advances in Technology

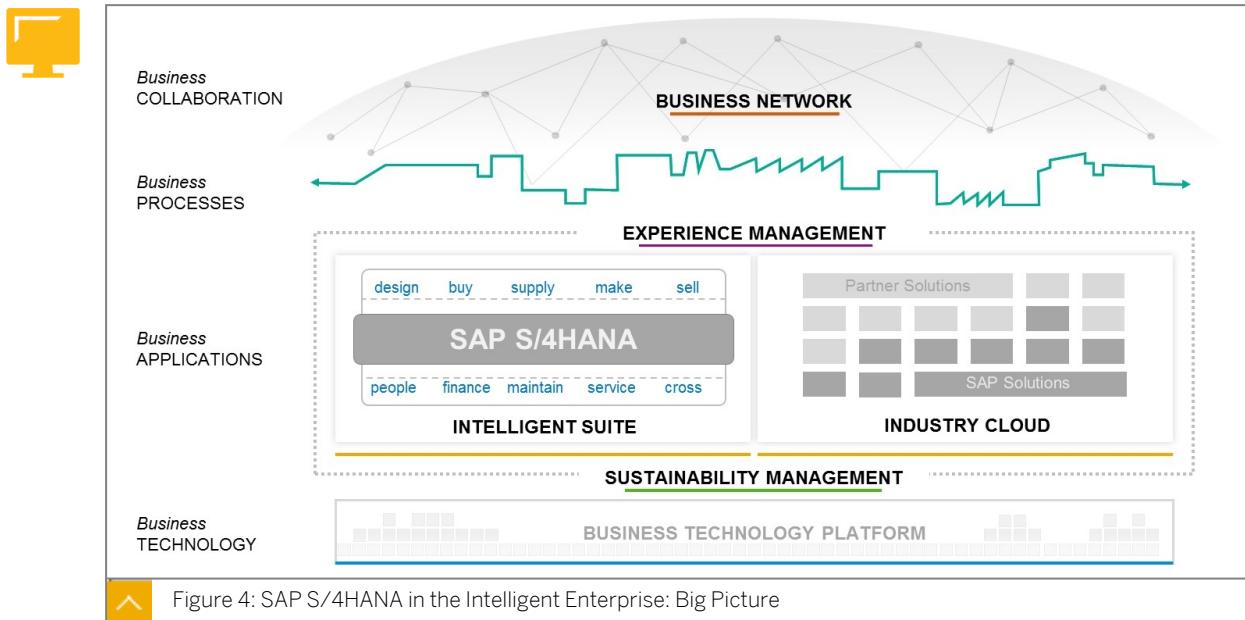
For more information on *Advances in Technology*, please view the animation in the lesson *Describing SAP S/4HANA* in your online course.

SAP rewrote its business application software to exploit the new hardware fully. SAP worked closely with leading hardware partners who shared the product blueprints of their new CPU architectures, so that SAP knew how to write the very best modern software to extract as much power as possible.

Cloud computing technology has matured in the last few years and is now a compelling deployment option for our customers who do not want to take on the complexity and cost of the installation and maintenance of IT landscapes. The use of virtual machines lowers the costs associated with running enterprise-wide applications. Public cloud services based on

subscription models increase access for everyone to the latest solutions and therefore reduce the costs by simplifying everything.

## The Intelligent Enterprise



We believe that best-run business are intelligent enterprises. They apply advanced technologies and best practices within agile, integrated business processes. This graphic shows the Intelligent Enterprise solution portfolio and how the pieces come together. Let's look in more detail.

- **Business Technology Platform**

Provides data management and analytics and supports application development and integration. It also allows our customers to use intelligent technologies – such as artificial intelligence, machine learning, and the Internet of Things – to drive innovation.

- **Business network**

Helps customers digitalize cross-company business processes. The network builds on our procurement, travel, and contingent workforce solutions. It helps our customers work together to build flexible value chains.

- **Experience management**

Helps organizations evaluate and act on customer, partner, and employee sentiment. Understanding what your stakeholders want and how they feel is critical to making the right decisions.

- **Intelligent suite**

Helps to run agile, integrated business processes. We help manage every part of the organization – employees, customers, products, spend, finance, and IT. With embedded analytics, we offer a 360-degree view of the business.

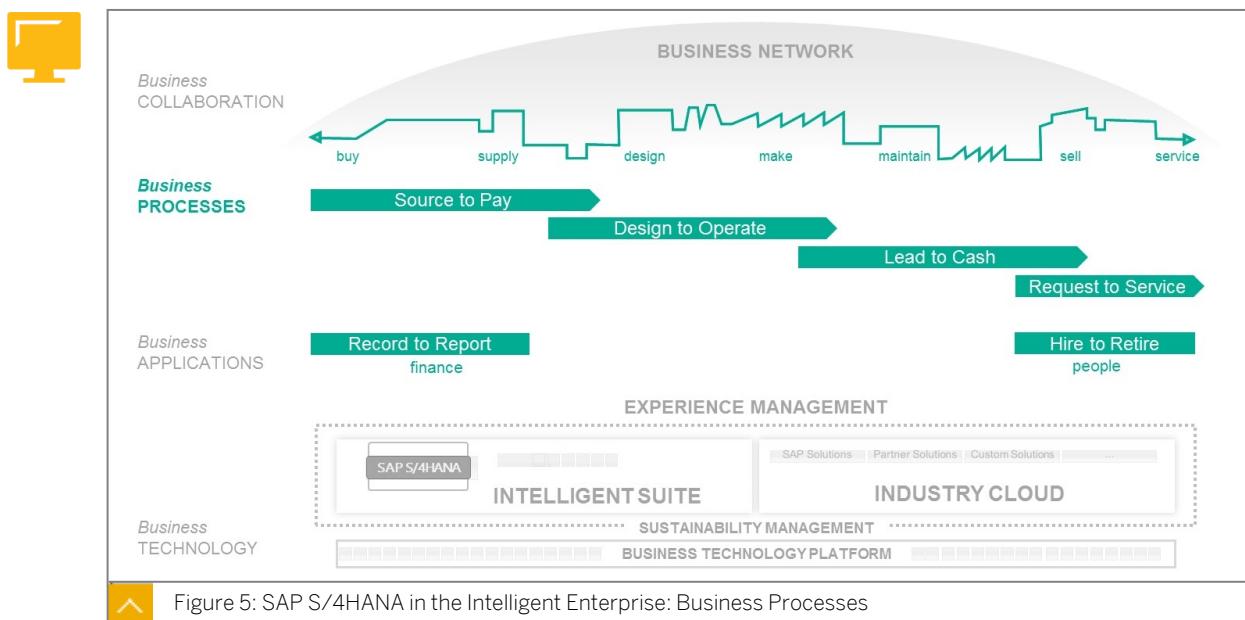
- **Industry cloud**

Allows customers to discover and deploy vertical solutions from SAP and partners. These help customers apply leading-edge industry best practices and extend current business processes.

- **Sustainability management**

Helps customers understand and manage their impact on people and the environment. Climate 21 is the name of our initiative behind our new crop of sustainability management solutions. These solutions help businesses understand and manage greenhouse gas emissions.

**The Intelligent Enterprise**, read more: [https://www.sap.com/products/intelligent-enterprise.html?url\\_id=ctabutton-glo-icon-ie&btp=d01a5612-66fd-40e3-8b53-bb605d549504](https://www.sap.com/products/intelligent-enterprise.html?url_id=ctabutton-glo-icon-ie&btp=d01a5612-66fd-40e3-8b53-bb605d549504)



A key part of the strategy is the integration of end-to-end processes. SAP made integrating these processes a top priority. Our breadth of solutions makes this possible.

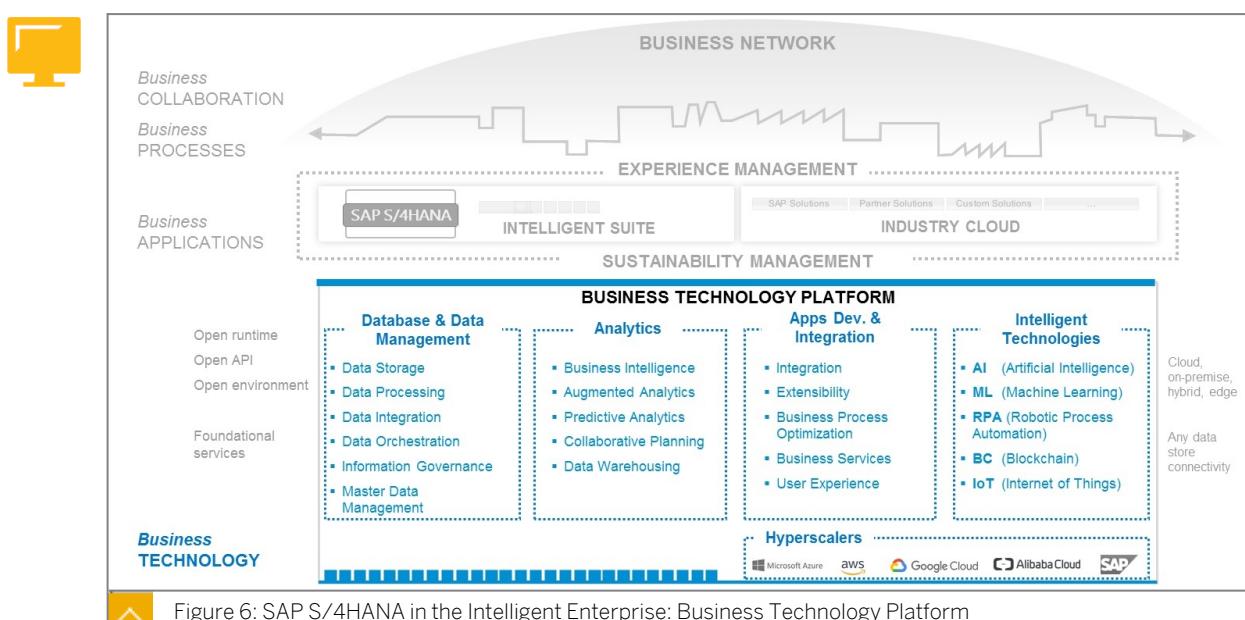


Figure 6: SAP S/4HANA in the Intelligent Enterprise: Business Technology Platform

The **Business Technology Platform** provides data management and analytics and supports application development and integration. Also, it allows our customers to use intelligent technologies – such as artificial intelligence, machine learning, and the Internet of Things – to drive innovation.



Animation: SAP S/4HANA in the Intelligent Enterprise: Business Technology Platform

For more information on *SAP S/4HANA in the Intelligent Enterprise: Business Technology Platform*, please view the animation in the lesson *Describing SAP S/4HANA* in your online course.

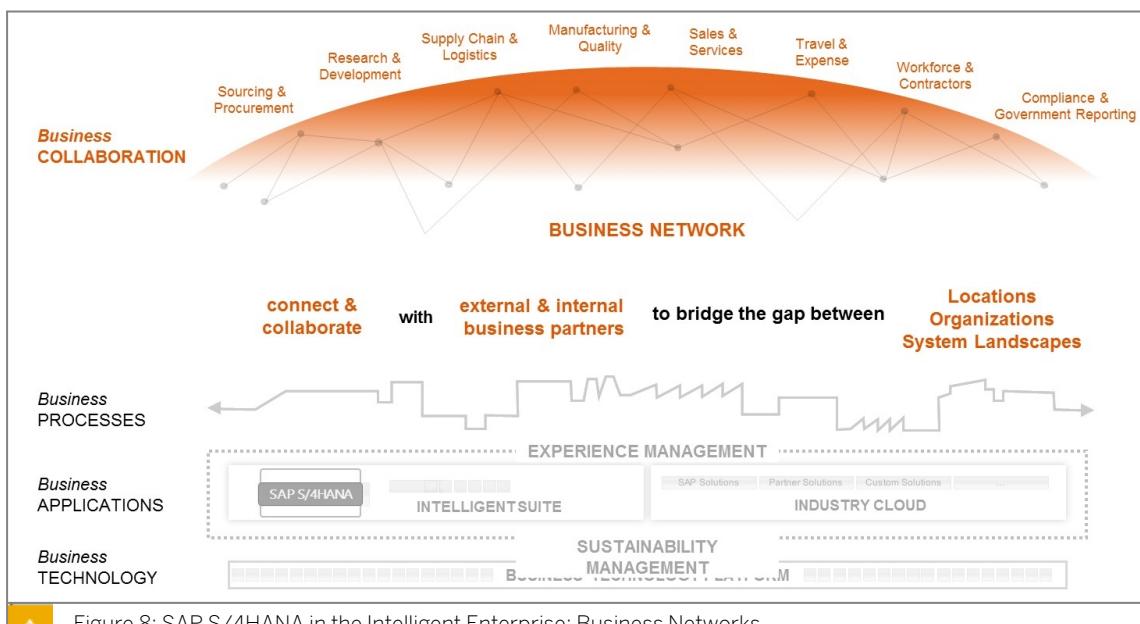
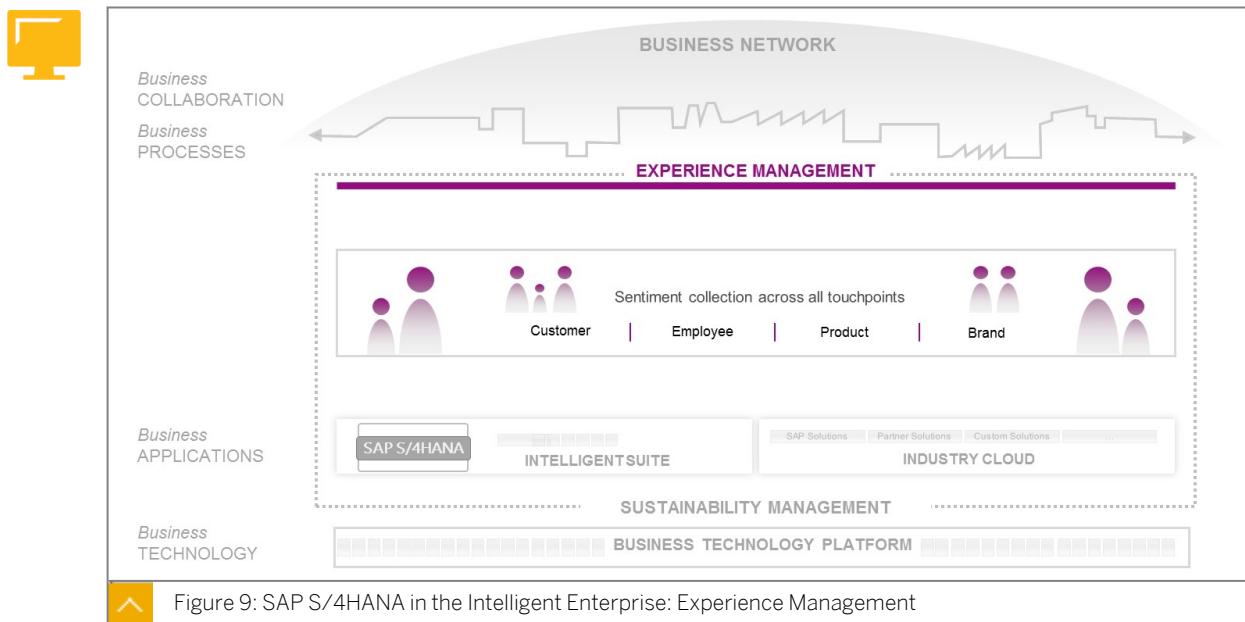


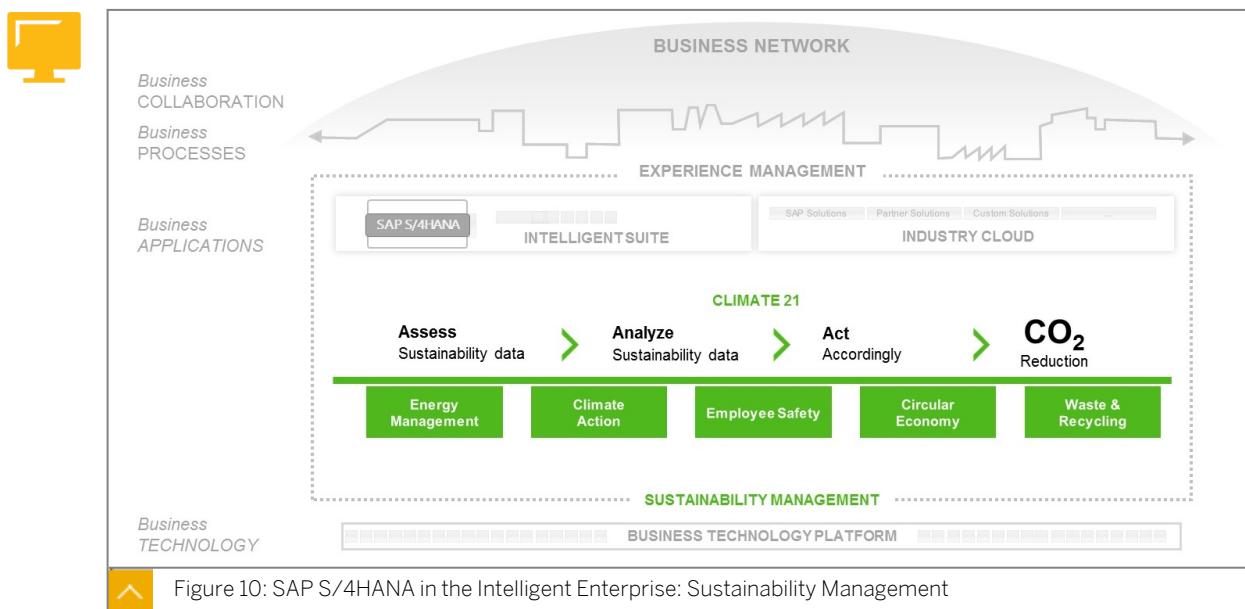
Figure 8: SAP S/4HANA in the Intelligent Enterprise: Business Networks

The SAP **business network** will help you to digitalize cross-company business processes. The network builds on current procurement, travel, and contingent workforce solutions to help intelligent enterprises work together to create flexible value chains.

Ramp up Business Partners collaboration to bridge the gap between locations, organizations and system landscapes.



**Experience management** helps evaluate and act on customer, partner, and employee sentiment. Understanding what your stakeholders want, and how they feel is critical to making the right decisions.



**Sustainability management** helps customers understand and manage their impact on people and the environment.

**Climate 21** is the name of our initiative behind our new crop of sustainability management solutions. These solutions help businesses understand and manage greenhouse gas emissions.

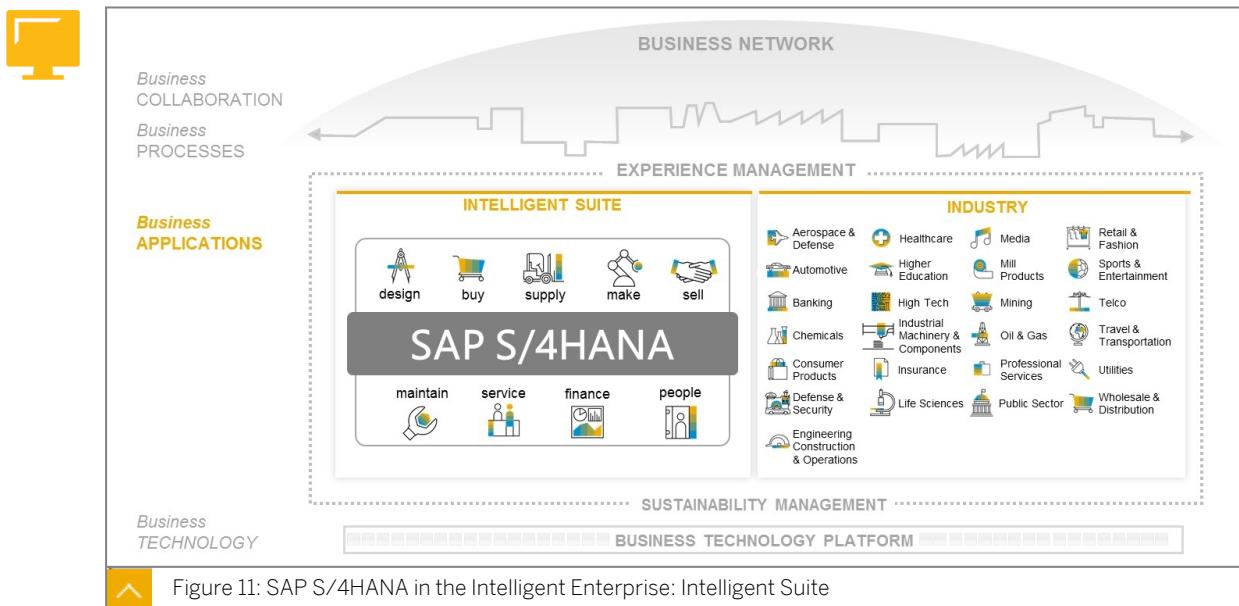


Figure 11: SAP S/4HANA in the Intelligent Enterprise: Intelligent Suite

SAP offers an **integrated suite** of applications that support your end-to-end business processes. The suite helps manage every part of your organization – employees, customers, products, spend, finance, and IT. With embedded analytics, we provide a 360-degree view of your business.

Business Applications in Lines of Business (LoB) for 25 Industries.

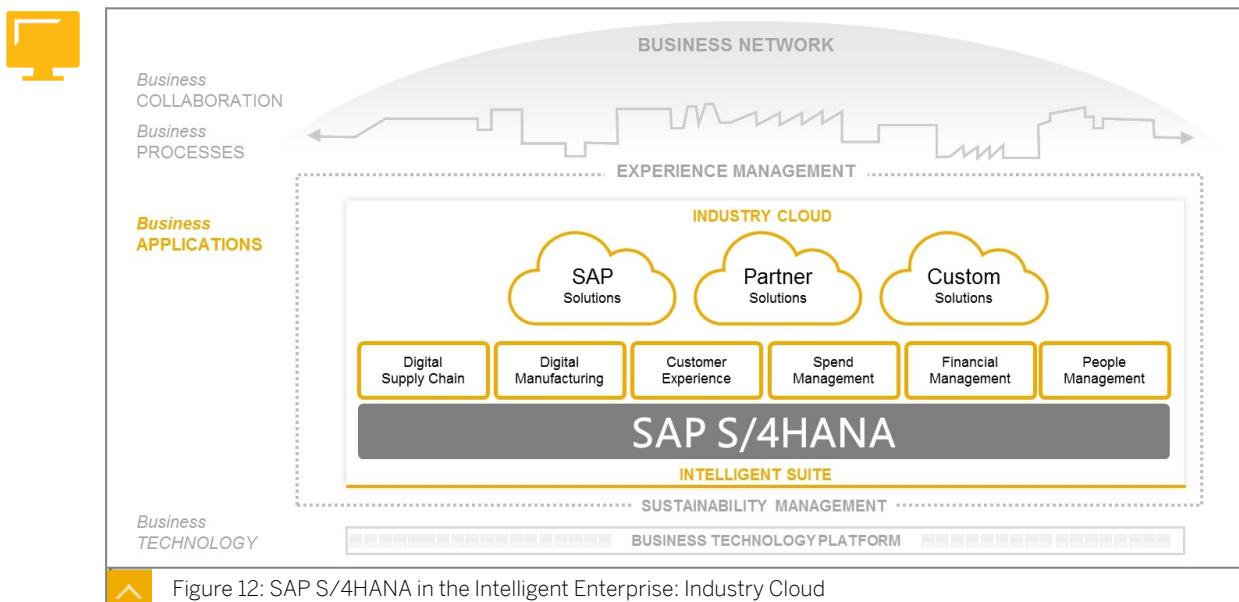


Figure 12: SAP S/4HANA in the Intelligent Enterprise: Industry Cloud

SAP's **industry cloud** will enable you to discover and deploy vertical solutions from SAP and partners. These help you to apply leading-edge industry best practices and extend your current business processes.

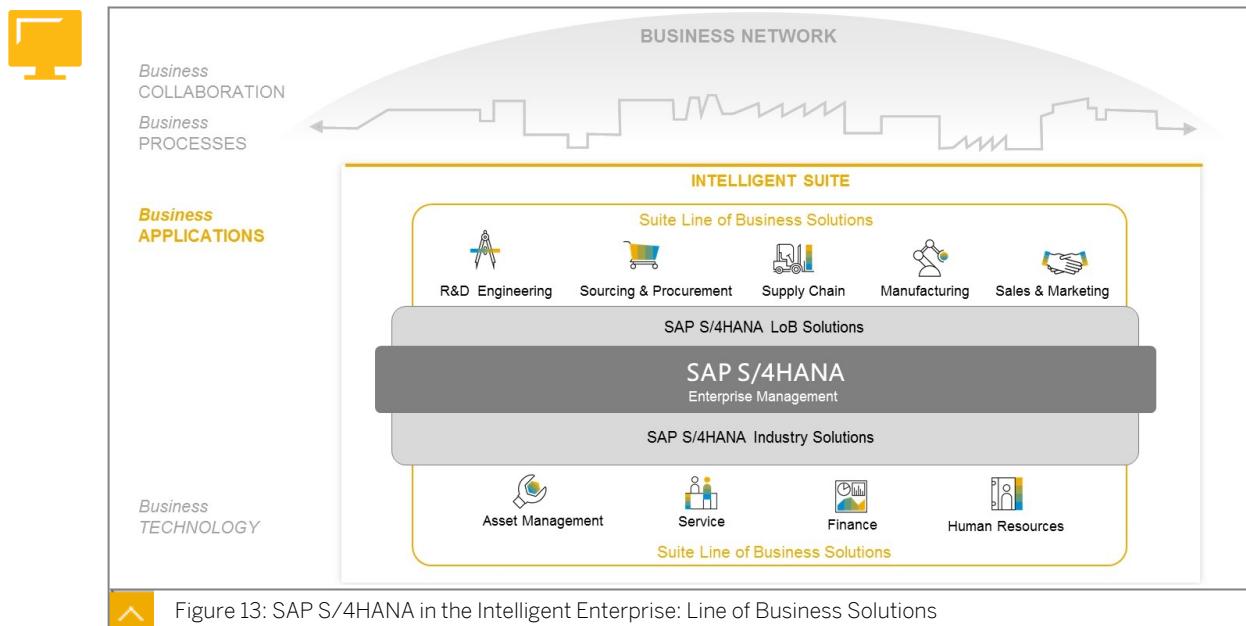


Figure 13: SAP S/4HANA in the Intelligent Enterprise: Line of Business Solutions

SAP offers an integrated suite of applications that support your end-to-end business processes:

- **SAP S/4HANA Enterprise Management**
- **SAP S/4HANA LoB Solutions** (with additional price tag)
- **Suite Line of Business Solutions** (with additional price tag, with additional installation effort)



Animation: SAP S/4HANA in the Intelligent Enterprise: Line of Business Solutions

For more information on *SAP S/4HANA in the Intelligent Enterprise: Line of Business Solutions*, please view the animation in the lesson *Describing SAP S/4HANA* in your online course.

### SAP S/4HANA Intelligent ERP system

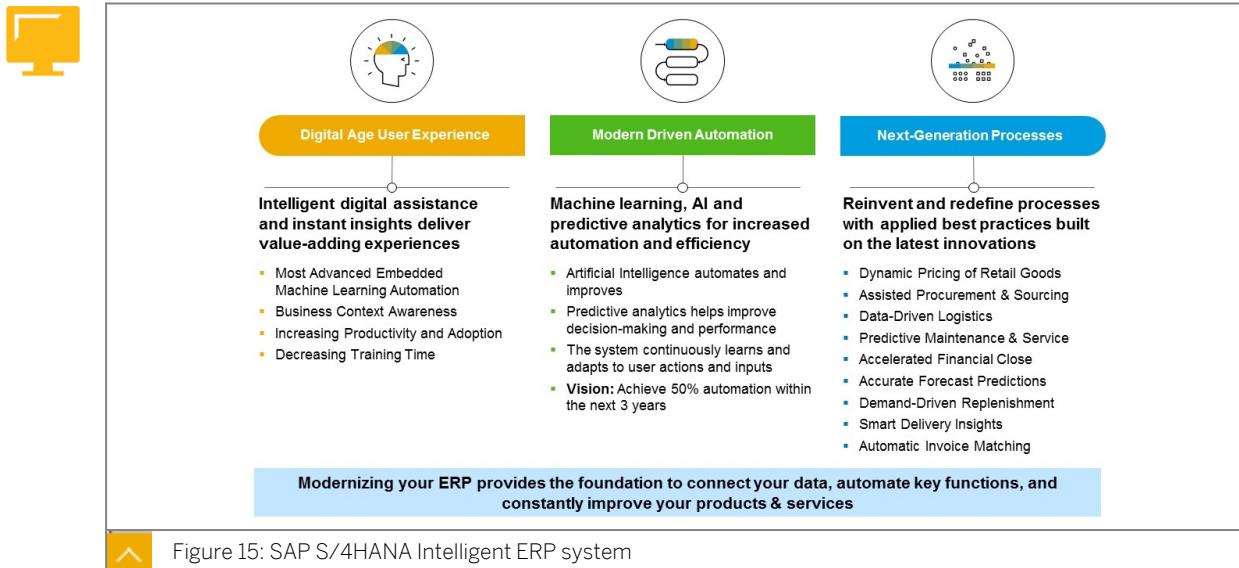


Figure 15: SAP S/4HANA Intelligent ERP system

SAP S/4HANA enables every employee to make smarter decisions faster with capabilities that utilize artificial intelligence and next-generation best practices.

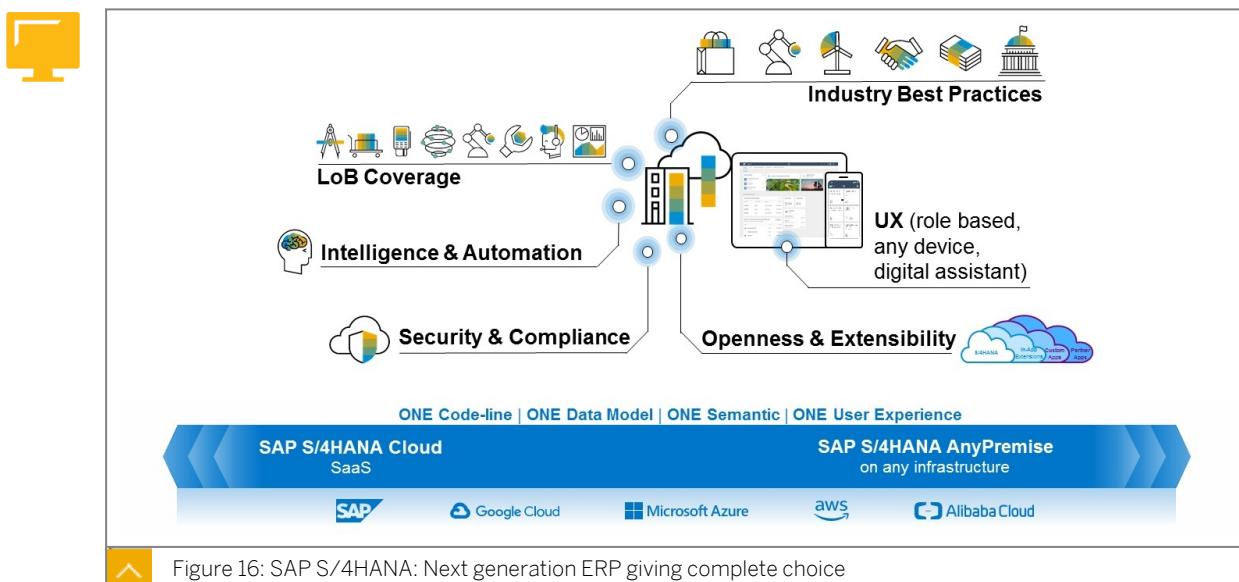


Figure 16: SAP S/4HANA: Next generation ERP giving complete choice

Discover a truly modern ERP system with embedded AI and machine learning – available on-premise, in a public or private cloud, or in a hybrid environment.

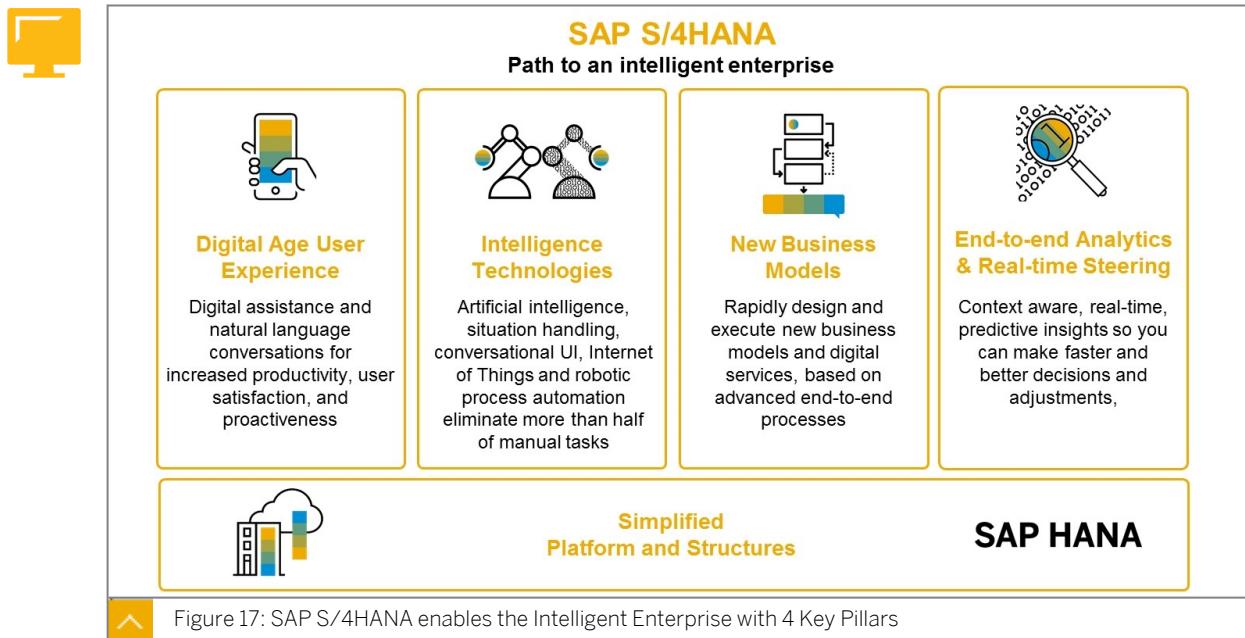


Figure 17: SAP S/4HANA enables the Intelligent Enterprise with 4 Key Pillars

To gain business agility then, you need the standardization provided by intelligent ERP: SAP S/4HANA.

SAP S/4HANA is the market leading intelligent ERP that helps organizations in all industries achieve unparalleled business agility, enabling them to meet ever-rising customer expectations, deliver new products and services, and manage resources more efficiently in an era of increasing market and regulatory demands.

Next generation, end-to-end business processes are powered by three key areas of innovation:

- **Digital Age User Experience** based on digital assistance and natural language conversations for increased productivity and user satisfaction.
- **Intelligent Automation** such as Artificial Intelligence (AI) and Robotic Process Automation (RPA) increase efficiency and effectiveness while reducing manual tasks by 50% or more.
- **End-to-End Analytics** provide context aware, real time, predictive insights so users and executives alike can make better decisions, faster.



Animation: SAP S/4HANA enables the Intelligent Enterprise with 4 Key Pillars

For more information on *SAP S/4HANA enables the Intelligent Enterprise with 4 Key Pillars*, please view the animation in the lesson *Describing SAP S/4HANA* in your online course.

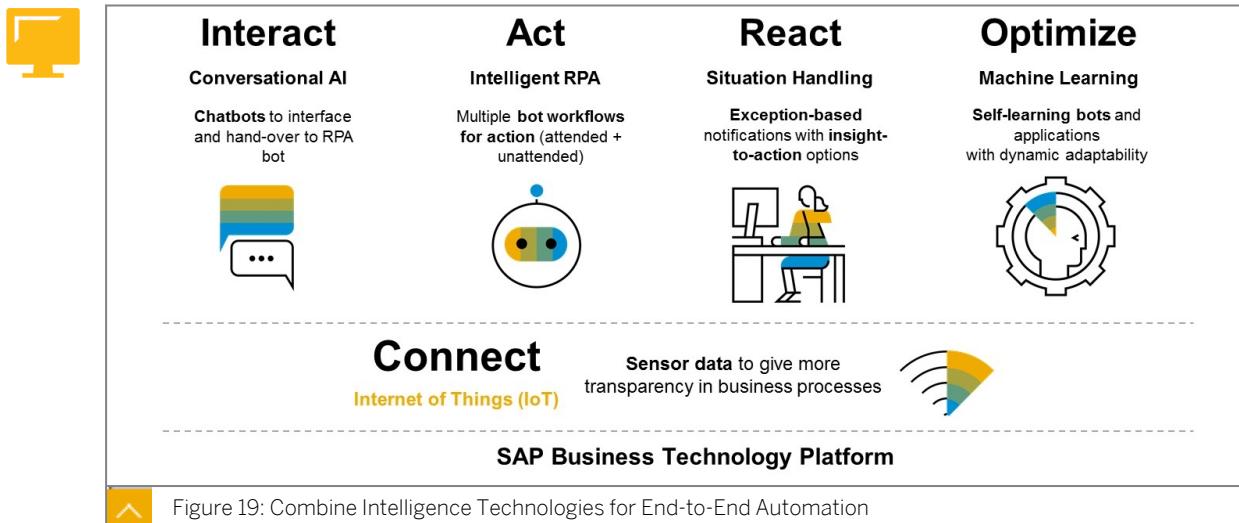


Figure 19: Combine Intelligence Technologies for End-to-End Automation

SAP S/4HANA empowers business users along the four stages of their decision-making:

- Data acquisition
- Information analysis
- Decision-making
- Action execution

In all of these stages, intelligent technologies help support business users to increase productivity and get better insights. Depending on the business process, increasing automation using intelligent Robotic Process Automation (RPA) services during data acquisition might yield the most benefits, while for other processes, you may benefit more from the potential in information analysis supported by AI. However, to accomplish these goals, a set of complementing capabilities is needed. The combination of these capabilities is provided through intelligent technologies, spanning conversational AI, situation handling, intelligent RPA, AI, and the Internet of Things.

Prebuilt content provided by SAP reduces the effort to minimal customizations or personalizing machine learning models by training them with your organization's data. Examples include situation base templates, RPA bots, or machine learning models. This allows you to jump-start your own use of intelligent technologies in end-to-end processes supported by SAP S/4HANA Cloud.

The **Intelligent Enterprise**, read more: [https://www.sap.com/products/intelligent-enterprise.html?url\\_id=ctabutton-glo-icon-ie](https://www.sap.com/products/intelligent-enterprise.html?url_id=ctabutton-glo-icon-ie)

**Intelligent Technologies**, read more: <https://www.sap.com/products/intelligent-technologies.html>

**SAP S/4HANA in the Intelligent Enterprise: Solution Overview**

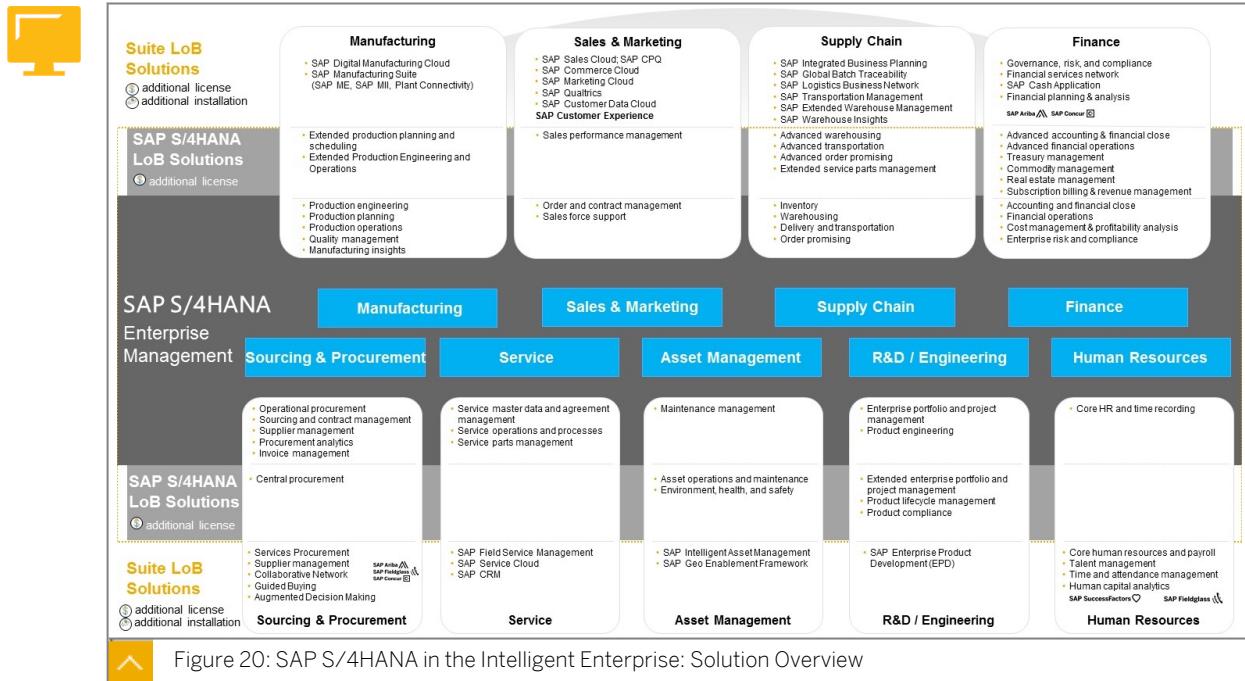


Figure 20: SAP S/4HANA in the Intelligent Enterprise: Solution Overview



### Animation: SAP S/4HANA in the Intelligent Enterprise: Solution Overview

For more information on *SAP S/4HANA in the Intelligent Enterprise: Solution Overview*, please view the animation in the lesson *Describing SAP S/4HANA in your online course*.

All Solution Areas reflect the official SAP terminology, which is further documented in the SAP Solution Explorer but also in the SAP Feature Scope description.

- In the dark grey area you can see all Solution Areas, included in the Shipment Scope and in the S/4HANA Enterprise Management license.
- In the light grey area you will find Solution Areas included in the shipment (or available as Add-On), which will require separate license.
- In the white area you will see Products or Solutions outside the shipment scope which can be integrated but require individual project. Many of them can be seamlessly integrated with available interfaces (API's) or Best Practices, so that a relevant integration scope is supported out of the box.

#### Optimize manufacturing with SAP S/4HANA:

- Run intelligent manufacturing production processes and turn innovations into market success.
- Enable intelligent manufacturing from design to operation:
  - Real-time insights into work center and resource capacity utilization to understand load distribution and make real-time adjustments.
  - Live planning that enables users to respond to demand and confirmed-order changes.
  - Mass production of individualized, personalized parts with minimal human intervention.

- Collaboration between Original Equipment Manufacturers (OEMs) and contract service providers to enable quick fulfillment of custom orders, while reducing inventory and waste.

Optimize **sales** with SAP S/4HANA:

- Manage your sales activities intelligently and stay one step ahead of your competition.
- Deliver better customer experiences with intelligent sales:
  - Customer relationship management and support for pre-sales, service order management, and customer interactions.
  - One system for reduced data redundancy, lean processes with fewer business documents, and overall simplification.
  - Improved customer satisfaction with real-time inventory information for advanced available-to-promise order commitment dates.
  - End-to-end process for selling solution packages offered in a single quote and invoice.

Optimize your **supply chain** with SAP S/4HANA:

- Reduce uncertainty in your supply chain and unlock a significant competitive edge.
- Create an agile, connected, and intelligent supply chain:
  - Early and efficient visibility into stock transport orders for reliable planning and scheduling of goods in transit.
  - Live inventory management that enables unlimited simultaneous material movements and true transparency on inventory and material flows.
  - A single warehousing platform for all warehousing operations, including optimization, automation, and labor management.
  - One single harmonized MRP process for all materials, both unconstrained and those requiring advanced constraint-based planning.

Optimize **finance** with SAP S/4HANA:

- Increase the agility of your finance processes and gain end-to-end analytics.
- Transform finance for dynamic global markets:
  - Unified transactions, analytics, and planning to enhance the entire lifecycle.
  - Streamlined, intelligent automated processes for greater throughput.
  - Subscription- and usage-based billing models to fit your business' individual needs.
  - Actionable insights and recommendations at the point of decision for real-time evaluation.

Optimize **sourcing and procurement** with SAP S/4HANA:

- Enable value-driven, compliant, and scalable procurement through next-gen ERP.
- Centralize and automate procurement:
  - Centralized purchasing that provides flexibility and visibility across an organization.

- Embedded machine learning-based analytics to predict contract consumption for improved negotiations and material management.
- Automatic recommendations for new catalog items, contract creation for materials without an existing contract, and matching material group for the required free-text item.
- Automated payables matching and clearing with proposals for items that could not be cleared automatically.

Optimize **service processes** with SAP S/4HANA:

- Deliver exceptional, personalized, and reliable service with SAP S/4HANA.
- Transform service to retain customers for life:
  - Holistic analytics across your entire portfolio of services.
  - End-to-end management of commercial services, including integrated fulfillment, billing, and financial processes.
  - Technical service management from planning to fulfillment on a single platform.
  - Broad visibility across your operations to track, visualize, analyze, and interact with your data.

Optimize **asset management** with SAP S/4HANA:

- Plan, schedule, and execute maintenance operations with integrated and optimized processes:
  - Integrated scheduling to allocate and optimize resources, including people, tools, and materials.
  - Comprehensive management of environment, health, and safety data, including response and analysis.
  - Proactive task identification, management, and execution to improve safety, environmental impact, and operational results.

Optimize **R&D and engineering** with SAP S/4HANA:

- Drive value with new, personalized products and turn digital innovation into a competitive advantage for your business with next-gen ERP.
- Accelerate research and development:
  - Comprehensive project financial and logistical control to run effective, on-budget projects.
  - Resource management, including demand and capacity, for single projects and across the portfolio.
  - Product compliance and dangerous goods management to ensure safe handling of materials.
  - Product lifecycle management – from design through variant configuration.

**SAP S/4HANA Intelligent ERP system**, read more: <https://www.sap.com/products/s4hana-erp.html>

## SAP HANA – The Platform for SAP S/4HANA

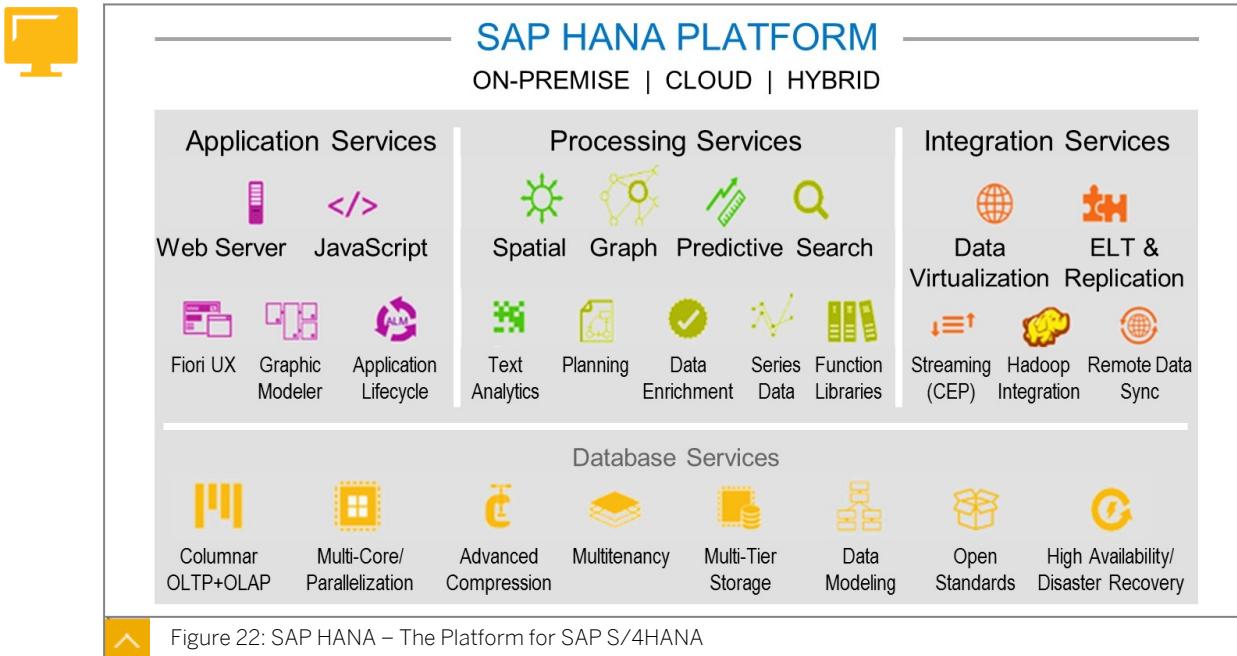


Figure 22: SAP HANA – The Platform for SAP S/4HANA



### Animation: SAP HANA – The Platform for SAP S/4HANA

For more information on *SAP HANA – The Platform for SAP S/4HANA*, please view the animation in the lesson *Describing SAP S/4HANA* in your online course.

SAP S/4HANA inherits the built-in capabilities of SAP HANA. This is evident throughout the new SAP S/4HANA applications.

The following list describes some of the key capabilities of SAP HANA:

- Application Services:

As well as a database, SAP HANA can provide many application services. This means that many applications can be built in a two-tier model, rather than a three-tier model. For example, imagine an application that allows a project manager to quickly check that all team members have completed their timesheets. This can easily be developed as a Web application, in which only a Web browser and SAP HANA is required. No application server is needed. This is because SAP HANA can handle the business logic, as well as the database services. SAP HANA provides a full development environment, with productivity tools supplied in the box. Everything the developer needs at design time, and at run time, is there.

- Processing Services:

SAP HANA can handle many new types of data. This includes text, spatial, graph, and more. However, it is not enough to simply store these new data types. We need to be able to build applications that can process and integrate this data with traditional data types, such as business transactions. SAP HANA provides native in-memory engines that process any types of data in real time.

- Integration Services:

SAP HANA has multiple data consumption options built in. It allows you to analyze continual streaming data, read data remotely in any data source, read Big Data stores such as Hadoop, and synchronize in both directions with remote databases and devices that collect data (IoT). SAP HANA has built-in Extraction, Transformation, and Loading (ETL) capabilities, so that separate software is no longer needed to clean, enrich, and profile data from any source.

- Database Services:

SAP HANA is a full in-memory column and row store database that can support both Online Transaction Processing (OLTP) and Online Analytical Processing (OLAP) requirements and is built to run on high-end hardware. It stores data optimally using automatic compression, and is able to manage data on different storage tiers to support data aging strategies. It has built-in, high-availability functions that keep the database running and ensure mission-critical applications are never down.

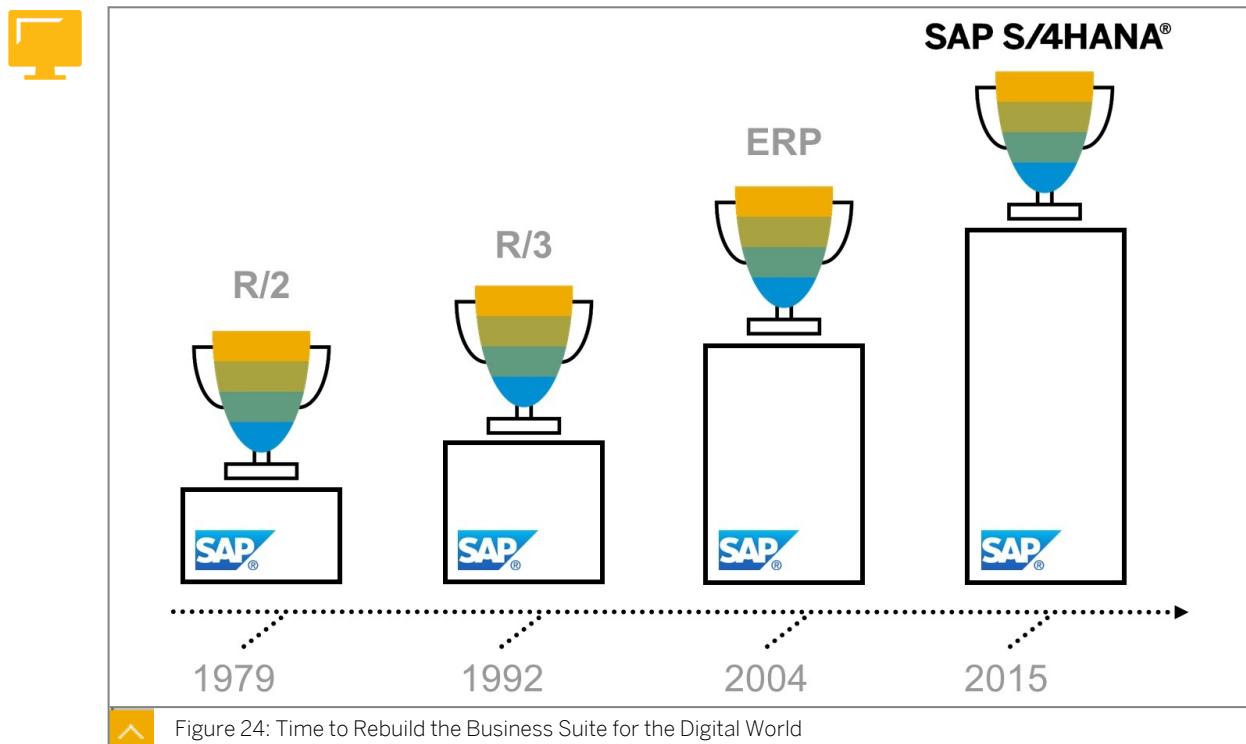
#### SAP Business Technology Platform:

SAP Business Technology Platform (SAP BTP) brings together intelligent enterprise applications with database and data management, analytics, integration and extension capabilities into one platform for both cloud and hybrid environments, including hundreds of pre-built integrations for SAP and third-party applications.

**SAP Business Technology Platform (SAP BTP)**, read more: <https://www.sap.com/products/business-technology-platform.html>

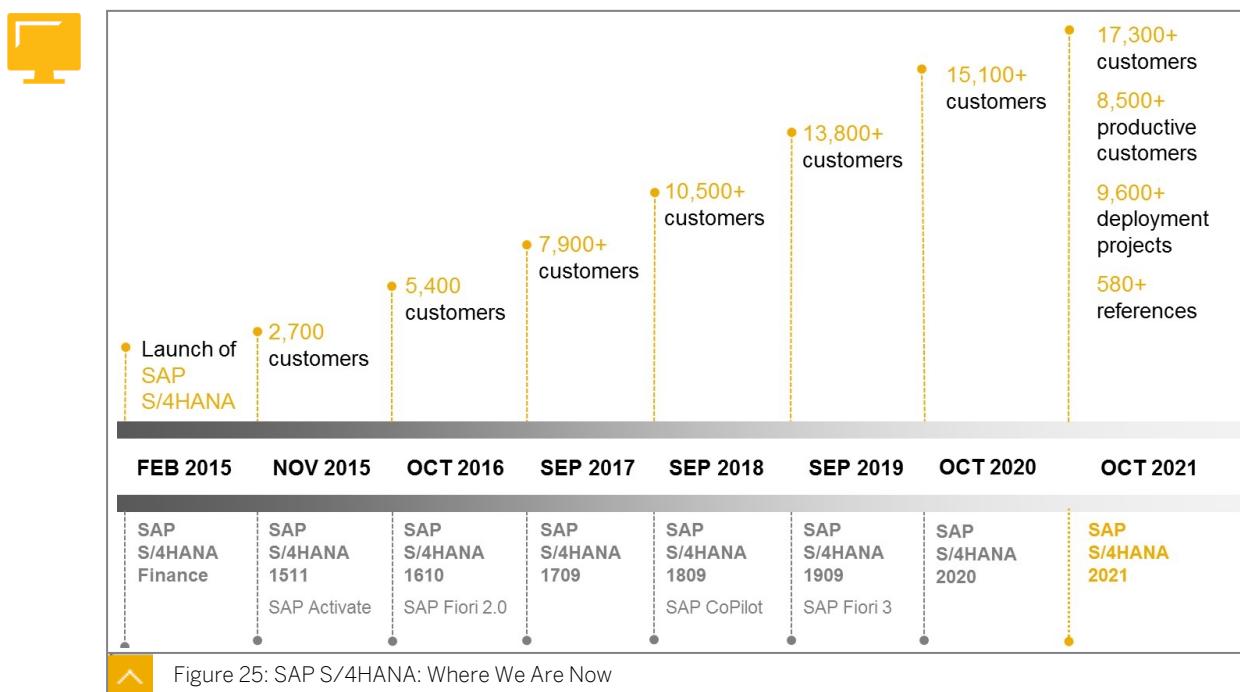
#### Time to Rebuild the Business Suite for the Digital World

Since the beginning of enterprise computing, SAP have been rebuilding the business applications whenever major technology shifts have occurred. Some key moments in application development history of SAP are as follows:



- 1979 - SAP invents ERP. SAP builds standard business software based on mainframe technology. The name, SAP R/2 supports and integrates major business functions in real time and handles multi-country and multi-currency implementations. (R means real time, and although there was an R/1, this is not regarded as the first major release).
- 1992 - With the rise of the personal computer, the introduction of client/server architecture means another rewrite of the applications to exploit the power of a layered, three-tier architecture approach, in which processing is split across three layers - client, application, and database. It is the end of the mono-chromatic, text-based, messy green screens and the start of a new graphical interface to improve the end user experience. This is the birth of SAP R/3.
- 2004 - The Web is firmly established as the common business network and customers demand better integration between their business applications and the Web. SAP develops a new integration application platform called SAP NetWeaver to enable this. Now all SAP applications run on a common platform, and customers and partners can build and integrate existing applications easily using widely adopted Web standards, such as Service-Oriented Architecture (SOA).

Additionally, a little later, a new switch framework is introduced to allow customers to enable only the new functions developed by SAP selectively, in order to avoid disrupting their core processes. The SAP R/3 name is now replaced by SAP ERP. ERP is part of a larger family known as SAP Business Suite, which also contains many other line-of-business (LoB) applications from SAP, such as SAP CRM.



- 2015 - A new wave of advances in hardware architecture brings massive computing power at decreasing costs. Huge memory and multi-core processors arrive to offer massive computing power. The underlying design of existing SAP applications does not fully exploit the power of the new hardware. A rewrite of the complete Business Suite is required. The new business suite is called **SAP S/4HANA**.

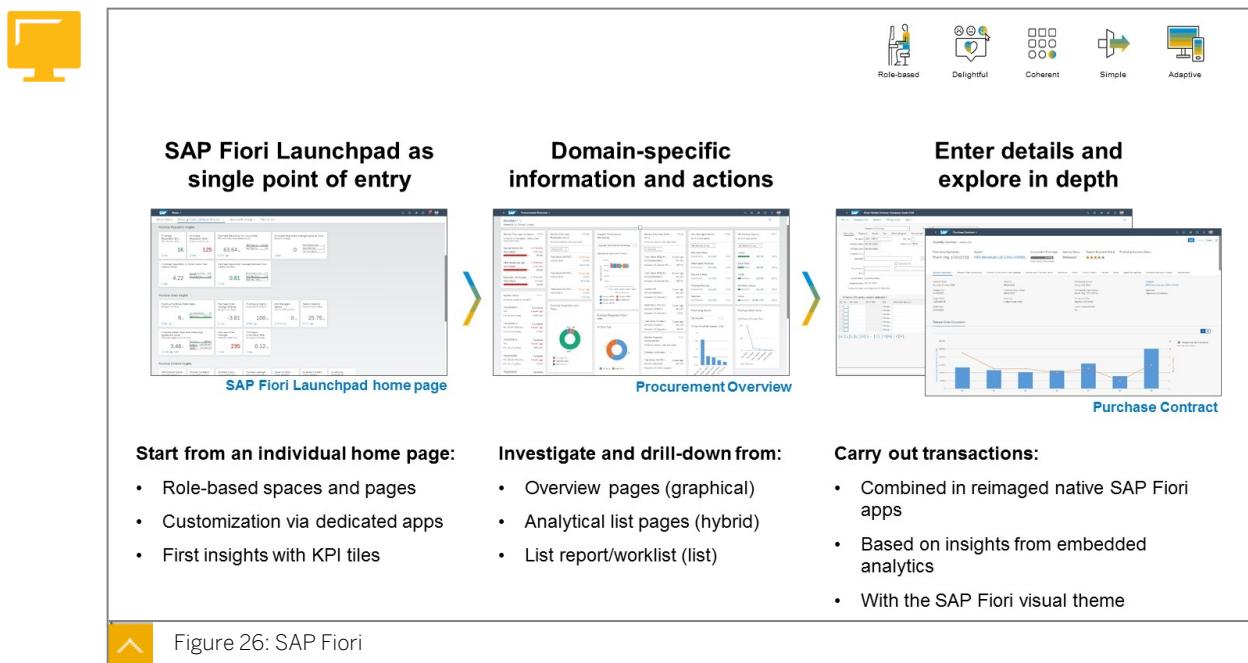
**SAP History**, read more: <https://www.sap.com/corporate/en/company/history.html>

## Next-Generation User Experience with SAP Fiori

The SAP Fiori user experience has redefined the way enterprise users work. With a new visual design and appearance, we are making work more delightful and are ready for the next-generation workforce.

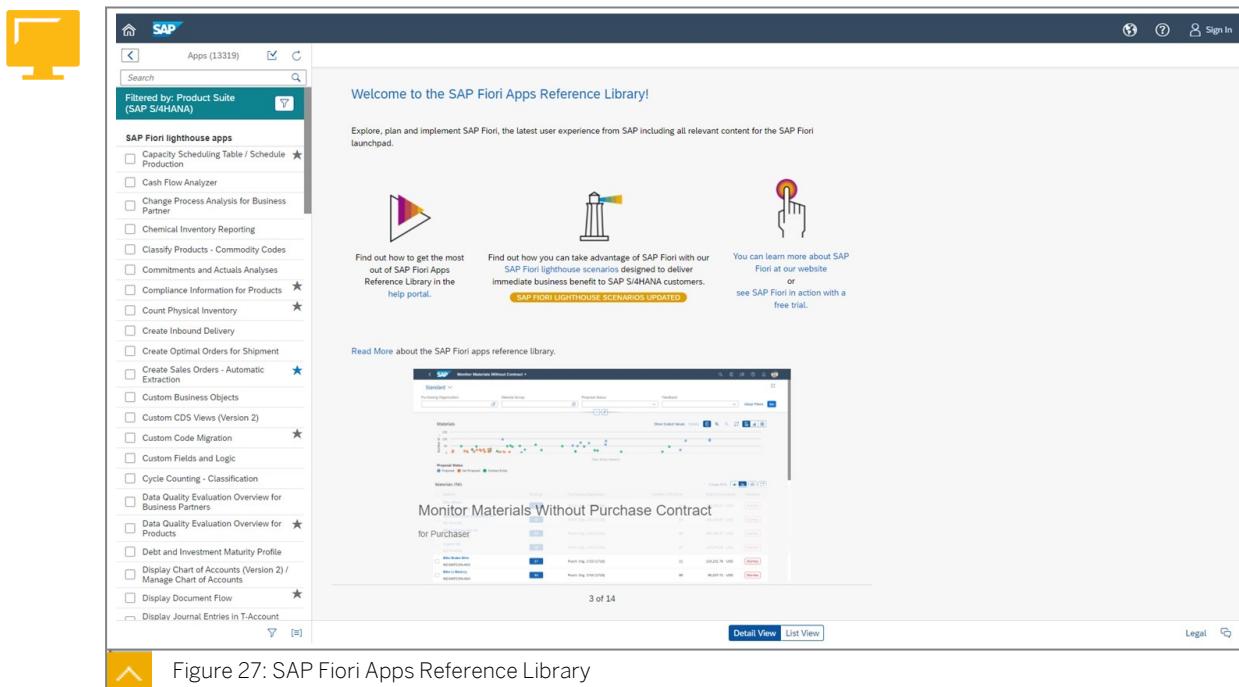
SAP Fiori is a design system that provides a consistent user experience (UX) for SAP software across platforms and devices. It is at the core of SAP's product experience and design strategy.

SAP Fiori is the UX of the Intelligent Enterprise that changes the way you work. It equips designers and developers with a set of tools and guidelines to create apps for any platform faster than ever – providing a consistent, innovative experience for both creators and users. SAP Fiori enables you to turn new ideas into great apps as quickly as the market demands.



With SAP S/4HANA comes a brand new user experience called SAP Fiori. SAP Fiori is not a software product, but the name of a new design approach that was created especially for SAP S/4HANA. Key aspects of the design of SAP Fiori applications are as follows:

- They must run comfortably on any device, and present a modern consumer-grade quality.
- They focus on specific job functions (as opposed to an overcomplicated screen filled with functions for different users).
- They offer only the essential information that users need to get their jobs done with no clutter.
- A task is completed with a few clicks and screen changes.
- Applications are intuitive to use, with little or no required training.
- They can include embedded analytics to support in-process decision making.
- The look-and-feel can be consistent across all applications.

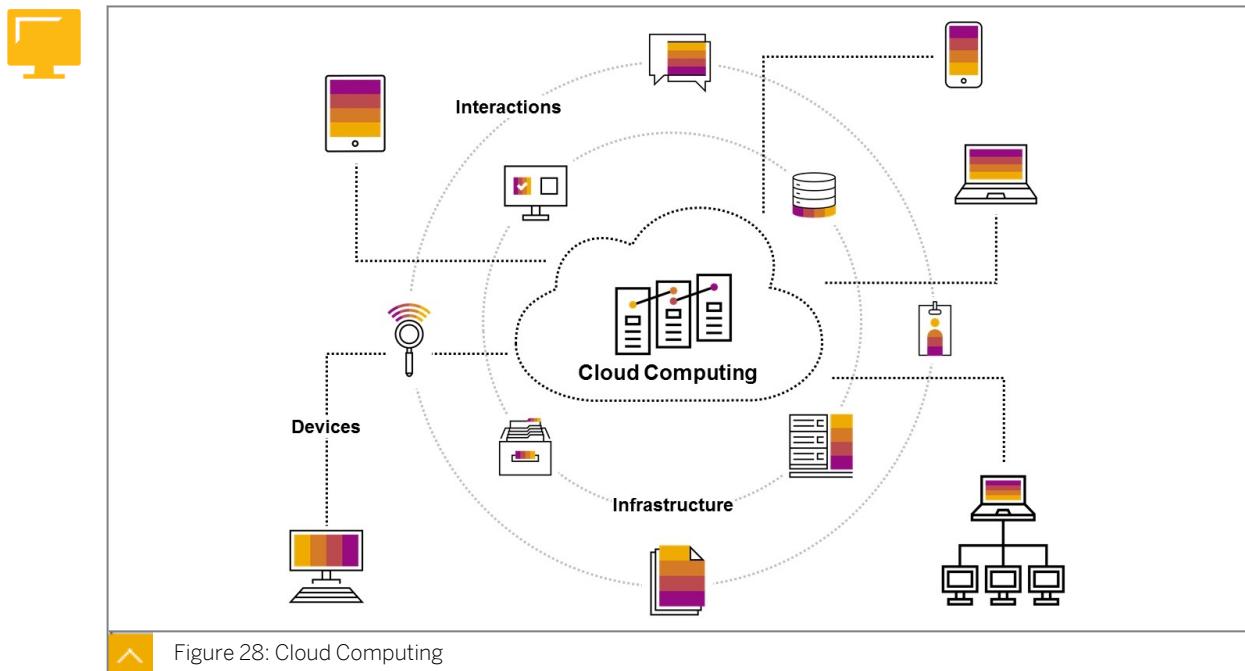


The SAP Fiori Apps library (<https://fioriappslibrary.hana.ondemand.com/sap/fi/x/externalViewer/>) shows a collection of available Fioris structured by Product, Role, LoB and/or Industry. The Fiori Apps library can be easily accessed in the Web and contains documentation and Implementation Guidance.

**SAP Fiori**, read more: <https://www.sap.com/products/fiori.html>

For the on-premise edition of SAP S/4HANA, SAP GUI is still supported, and can be used alongside SAP Fiori applications to provide an easy transition for existing SAP customers who are familiar with the classic interface. Additionally, there are a number of transactions that are not yet converted to SAP Fiori, and SAP GUI is still needed for those. It is important to remember that there is not always a 1:1 relationship between a classic SAP GUI transaction and an SAP Fiori application. In many cases, a single SAP Fiori application can replace many individual SAP GUI transactions.

## SAP Cloud Solutions and Services



Cloud computing delivers services such as data storage, security, networking, software applications, and business intelligence via the internet on a subscription basis.

Cloud computing has arrived, and everyone is interested in learning more. Your users and customers are used to their personal mobile applications, where they can interact and work anywhere, anytime. But there is much more behind cloud computing than just a modern web interface. Great response time, data storage, information access, reliability, and security are all vital to any business looking into a possible move to the cloud. More than likely your peers have told you of their success with cloud computing and how they have the most current technology, much more flexibility, or lower IT costs.

As you explore the world of cloud computing, you will want to be familiar with some of the terms, definitions, and choices you have in cloud computing.

Benefits of cloud computing:

- **Reliable:**

Secure, safe, and available. Get 24x7 cloud system access from anywhere with excellent response time. Run on secure servers with a staff of full-time security experts. Know that your data is redundant and remotely backed up.

- **Flexible:**

Get the computing power you need when you need it. Add or reduce servers, networking, or storage. Get new users on board instantly. Expand to new geographies. All done fast and easy.

- **Financial:**

Only pay for what you need. No up-front financial expenses for hardware or facilities. Reduce IT staff time used to maintain and upgrade the systems. Instead, invest your funds and people in revenue-generating projects.

- **Up to date:**

Always have the latest version of the platform, database, and software applications. Plus, take advantage of emerging technologies such as Machine Learning (ML), Artificial Intelligence (AI), Internet of Things (IoT), and more. Always stay up to date on the latest innovations.

Types of cloud computing services:

- **Software-as-a-service (SaaS):**

The software is hosted on a remote server and customers can access it anytime, anywhere, from a Web browser or a standard web integration. The SaaS provider takes care of backups, maintenance, and updates.

Examples for SAP Cloud applications:

- **Cloud ERP:** Get a solid digital core with a cloud-based ERP system that integrates processes across all business functions. Gain the agility you need to innovate and keep up with rapidly changing customer demands – no matter what your company size.
- **Cloud Procurement:** Automate your entire source-to-pay process. With our cloud applications, you can gain greater visibility into costs, boost efficiency, and improve supplier collaboration. You can also streamline contract management and reduce supplier risk.
- **Cloud Analytics:** Make better decisions, faster – across your organization – with SAP software-as-a-service analytics. Take advantage of integrated business intelligence, planning, and predictive capabilities, all in one simple, self-service cloud solution.
- **Cloud HR:** Deliver a seamless digital experience with our HR cloud solutions. Simplify HR processes and drive better business results. Find the right talent, develop future leaders, and engage all employees with automated, transparent processes.

- **Platform-as-a-service (PaaS):**

Is a cloud-based, application development environment that provides developers with everything they need to build and deploy apps. With PaaS, developers can choose the features and cloud services they want on a subscription or pay-per-use basis.

SAP Cloud Platform (SCP) is an integration and extension platform built for the Intelligent Enterprise that enables you to connect your landscape and create application extensions that focus on your business needs.

- **Infrastructure-as-a-service (IaaS):**

Lets companies rent computing resources, such as servers, networks, storage, and operating systems, on a pay-per-use basis. The infrastructure scales – and customers don't have to invest in the hardware.

**SAP Cloud Solutions and Services**, read more: <https://www.sap.com/trends/cloud-solutions.html>

## SAP S/4HANA Deployment Options

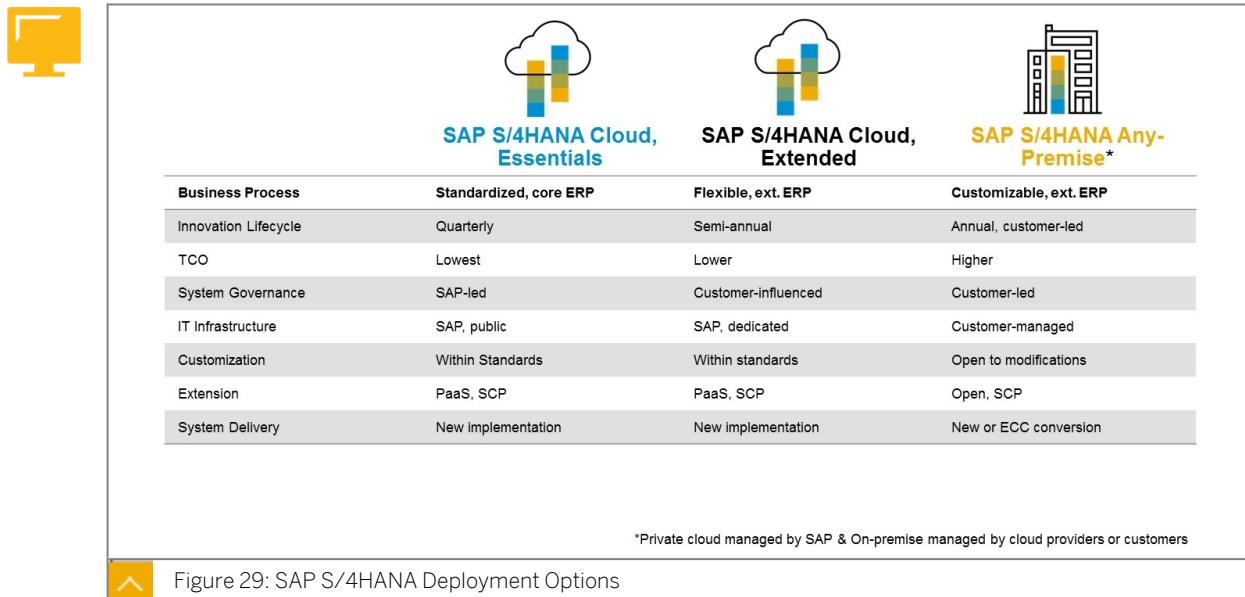


Figure 29: SAP S/4HANA Deployment Options

SAP S/4HANA is available as a traditional any-premise deployment, a Cloud deployment, or a combination of both.

- Cloud:**

Maximize agility with standardized processes built from proven best practices in every industry, new innovations as frequently as four times per year, fast time to value, and lower TCO.

- Any Premise:**

Optimize your capacity for specialization by deploying SAP S/4HANA in your own datacenter or utilizing an infrastructure-as-a-service provider and customize and extend SAP S/4HANA with complete control of your environment.

- Hybrid landscape:**

Manage corporate and subsidiary needs with a hybrid landscape – in the cloud and on premise – and leverage a single data model for simplified integration and coordinated processes.

Types of **cloud** deployment:

- Public cloud** (SAP S/4HANA Cloud, Essentials / SAP S/4HANA Cloud, Extended):

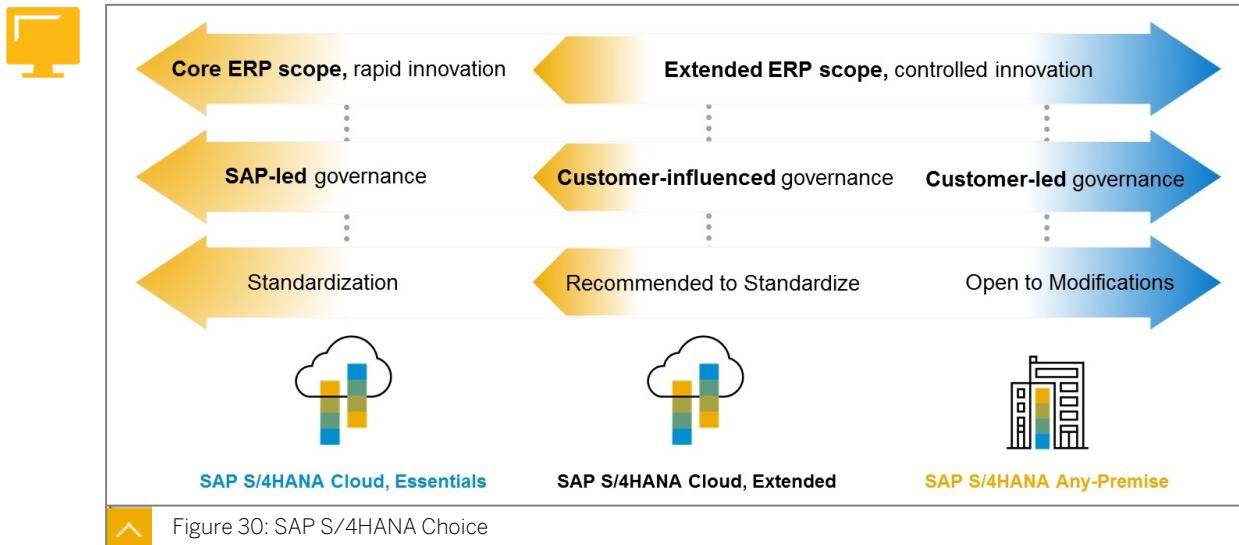
With a public cloud, services are delivered to customers over a network that's available for usage by the provider's clients. Public clouds offer efficiency and affordability and are often multi-tenant – meaning the provider runs your service in a shared environment.

- Private cloud:**

With a private cloud, services are maintained on a private network protected by a firewall. You can build a private cloud within your own data center – or subscribe to one hosted by a vendor. Private clouds offer the most security and control.

- Hybrid cloud:**

A hybrid cloud is a combination of public cloud, private cloud, and on-premise infrastructure. Hybrid clouds let you keep sensitive information in a traditional data center or private cloud while taking advantage of public cloud resources.



For customers who determine that cloud is the best choice for their SAP S/4HANA deployment, SAP offers several choices. To determine the best one, a customer should consider three dimensions: Scope, Governance, and Standardization. Please note that these terms are categories, each of which contain several different characteristics.

- **Scope:**

Scope includes the business processes supported (finance, inventory, and so on), as well as industry and geography support. Running SAP S/4HANA on Custom HEC is the same scope as on premise SAP S/4HANA. So too is the SAP S/4HANA Cloud, single-tenant edition. SAP S/4HANA Cloud is the leading Cloud ERP with more country localizations supported and more intelligent processes enabled by machine learning and predictive analytics than any other solution on the market. As with any public cloud solution, the processes are standards-based, making it important for companies, especially installed base customers of SAP to review whether fit-to-standard based on the available scope of the solution will serve their business needs by exploring the Best Practice Explorer: <https://rapid.sap.com/bp/>.

- **Governance:**

In this category we mean not only the updates to SAP S/4HANA itself (enhancement packs and fixes), but also running the infrastructure. For SAP S/4HANA Cloud, SAP determines the maintenance update and innovation schedule (quarterly innovation cycles / updates and as needed for fixes); while for SAP S/4HANA Cloud, single-tenant edition, the customer can influence governance receive up to 2 updates per year, 1 update per year being mandatory. With on-premise, the customer controls when updates are made, with one update being made annually for SAP S/4HANA.

- **Standardization:**

This category refers not only to customizations and extensions, but also modifying the configuration and code itself. For on-premise, the customer is in control and can customize, extend, configure, and modify as they see fit. This flexibility can also lead to difficulties during the update and innovation cycle if the solution is heavily modified, as was

the case for past on-premise ERP solutions. For SAP S/4HANA Cloud, customizations and extensions must be done in a controlled environment (SAP Business Technology Platform [SAP BTP]), which makes the maintenance easier to do moving forward. In this case, modifying the configuration or the SAP S/4HANA code itself is not allowed. In the case of SAP S/4HANA Cloud, single-tenant edition, an entire content configuration can be carried forward during implementation, and full extensibility is possible. However SAP stresses the need to standardize, in order to make the move to SAP S/4HANA Cloud (multi-tenant) more feasible in the future.

For more information on SAP S/4HANA Cloud: <http://go.sap.com/product/enterprise-management/s4hana-erp/cloud.html>

### SAP Cloud Appliance Library

SAP Cloud Appliance Library offers a quick and easy way to consume the latest SAP solutions in the cloud, such as SAP S/4HANA, SAP HANA Express Edition, Industry Solutions etc.

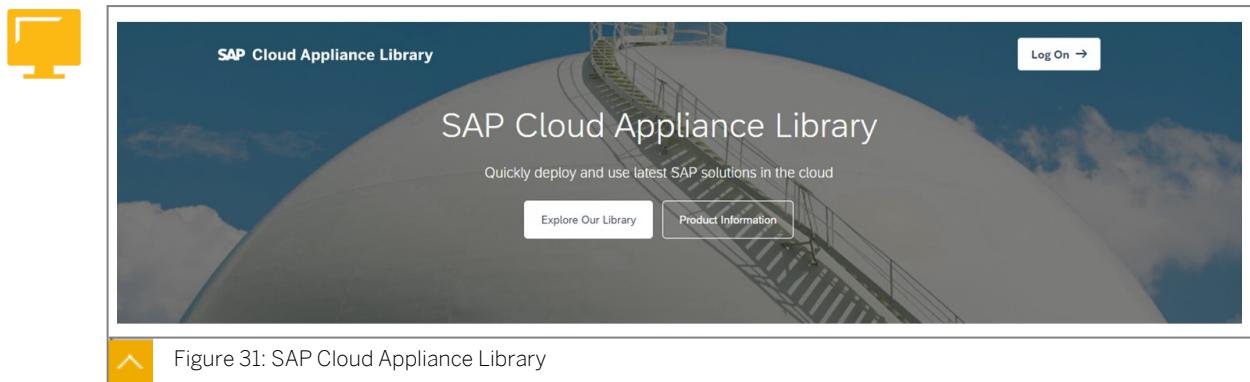


Figure 31: SAP Cloud Appliance Library

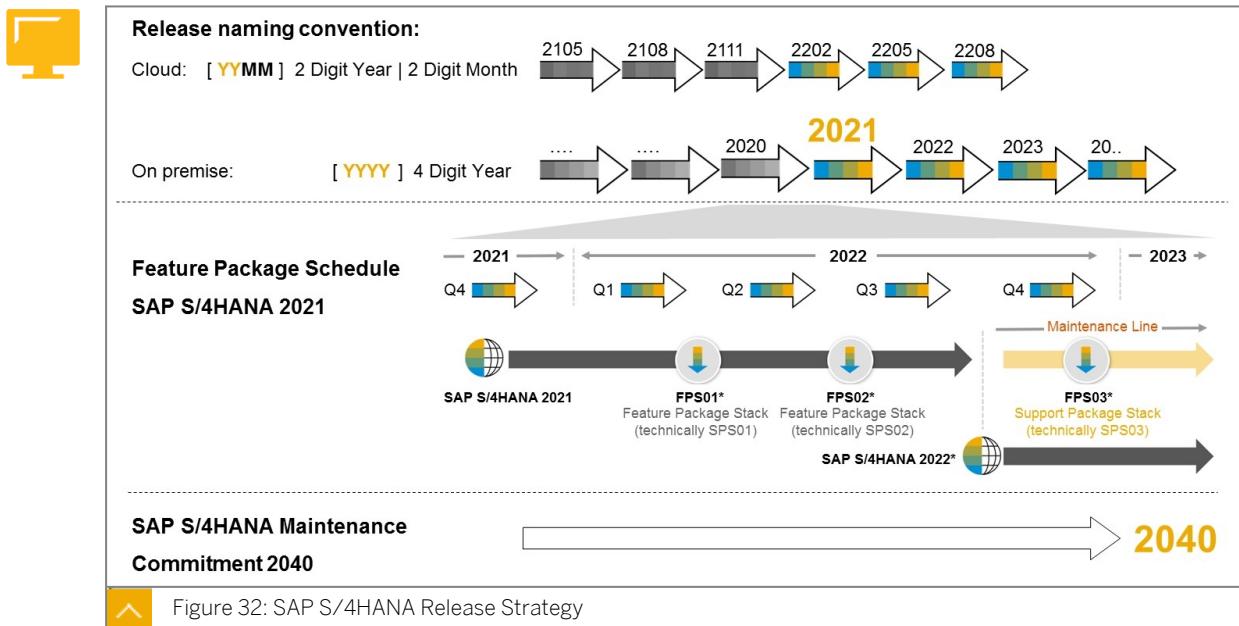
It's an online library of latest, preconfigured, ready-to-use SAP solutions that can be instantly deployed into your own public cloud accounts (for example, Amazon Web Services, Microsoft Azure and Google Cloud Platform) to kick-start your SAP projects - within few hours!

#### Why SAP Cloud Appliance Library?

- It's Fast:  
Lets you spin-up test, demo, trial and development systems with just a few clicks.
- It's Simple:  
Offers fully automated deployment in the cloud with intuitive user experience.
- It's Powerful:  
Provides instant access to latest business solutions and accelerate time-to-value.

Visit SAP Cloud Appliance Library: <https://cal.sap.com/>

## SAP S/4HANA Release Strategy

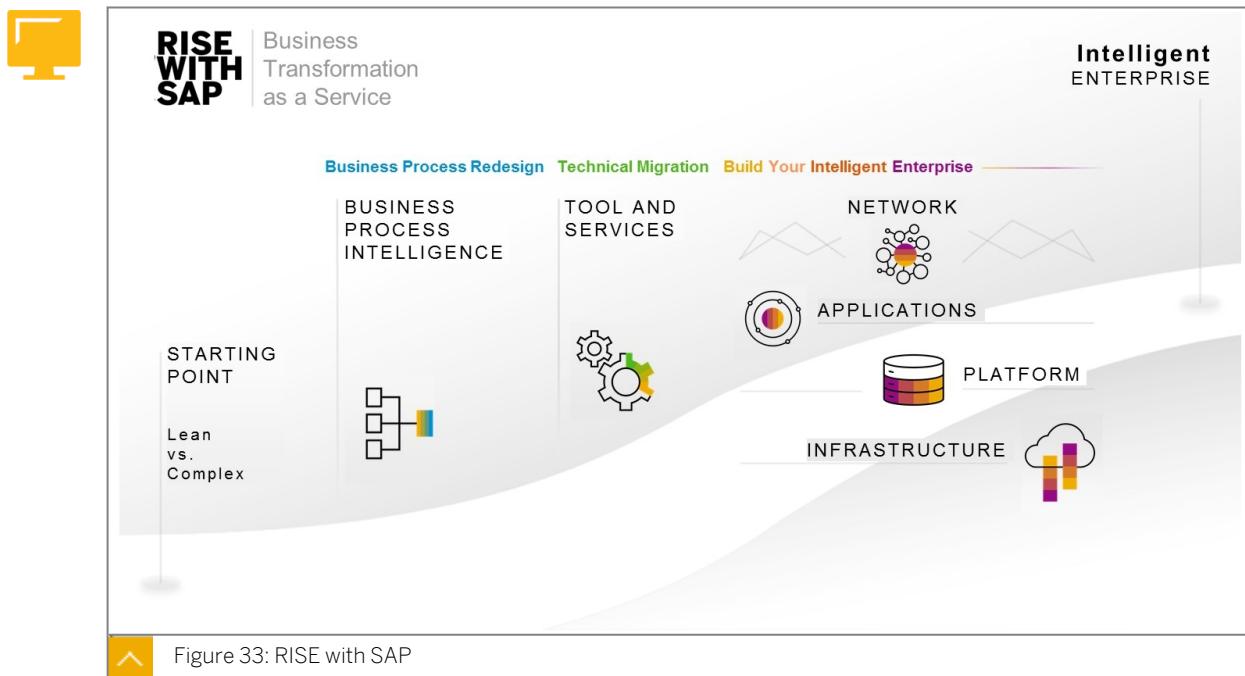


SAP S/4HANA and SAP S/4HANA Cloud editions have a different release strategy:

- **SAP S/4HANA** - SAP ships one major release each year followed by 3 Feature Pack Stacks (FPS) on a quarterly basis. FPS deliver additional innovations as well as fixing issues. Beyond the FPS, SAP continues to ship Support Pack Stacks (SPS) on a quarterly basis to provide further improvements purely for stability.
- **SAP S/4HANA Cloud** - This moves at a faster pace and SAP ships a major release each quarter. There are no FPS or SPS releases.

### RISE with SAP

RISE with SAP is an offer that brings together everything you need to transform your business in the way that works best for you.



Benefit from our comprehensive, intelligent, customer-specific offering:

- Business Process Intelligence: Process Discovery:  
Learn about our latest acquisition and get started with business process intelligence. Gain insights into end-to-end process performance with process analytics and real-time monitoring, and drive process improvements by automating tasks and workflows.
- Embedded tools and services:  
Leverage a set of preparational, analytical, and enabling tools and services to facilitate a seamless transition from your current ERP environment.
- Consumption credits for SAP Business Technology Platform:  
Choose how to spend cloud credits, monitor real-time service usage to better understand project costs, and only get charged for what is used with consumption credits for SAP Business Technology Platform (SAP BTP).
- SAP Business Network Starter Pack:  
Create dynamic, digital connections with trading partners by using our starter pack for SAP Business Network to extend your transformation beyond the four walls of your business.
- SAP S/4HANA Cloud:  
Achieve a fast time to value with a modern cloud ERP. Benefit from cloud economics, leverage best practices across industries and LoBs, evolve toward an intelligent enterprise, and seize new opportunities sustainably.
- Infrastructure as a service (IaaS):  
Select deployment options for an SAP-hosted or hyperscaler approach to deliver IaaS benefits of high performance and reliability at scale to accelerate your journey to the Intelligent Enterprise.

RISE with SAP, read more: [https://www.sap.com/products/rise.html?url\\_id=ctabutton-global-icon-rise-012721](https://www.sap.com/products/rise.html?url_id=ctabutton-global-icon-rise-012721)



## LESSON SUMMARY

You should now be able to:

- Describe SAP S/4HANA

## Learning Assessment

1. What are some of the trends driving the requirement for a re-engineered business suite built for the digital world?

*Choose the correct answers.*

- A Increase in device connectivity
- B Business users taking on more technical IT tasks
- C Increase in ownership of mobile devices
- D Adoption of Cloud computing

2. Why was the application code rewritten for SAP S/4HANA?

*Choose the correct answers.*

- A The optimized ABAP code that we developed for Suite on SAP HANA would not work with SAP S/4HANA
- B To take advantage of the simpler data model
- C SAP S/4HANA is now built with Java
- D To ensure that the code is optimized for SAP HANA

3. What is the name of the SAP S/4HANA core?

*Choose the correct answer.*

- A Enterprise Resource Management
- B Enterprise Management
- C Enterprise Central Component
- D Enterprise Line of Business (LoB)

4. What is SAP Fiori?

*Choose the correct answer.*

- A Mobile technology
- B User experience
- C Data model
- D Reporting tool

5. Which edition allows more extensive customer modifications?

*Choose the correct answer.*

- A SAP S/4HANA
- B SAP S/4HANA Cloud

6. Bonus question: What does the word **Fiori** mean? (Clue: it is an Italian word.)

*Choose the correct answer.*

- A Fire
- B Flower
- C Fury
- D Fast

## UNIT 2

# Navigation

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### UNIT OBJECTIVES

- Use SAP Fiori applications and tools
- Use the SAP Business Client
- Use SAP Logon (GUI)

# Unit 2

## Lesson 1

### Using SAP Fiori



#### LESSON OBJECTIVES

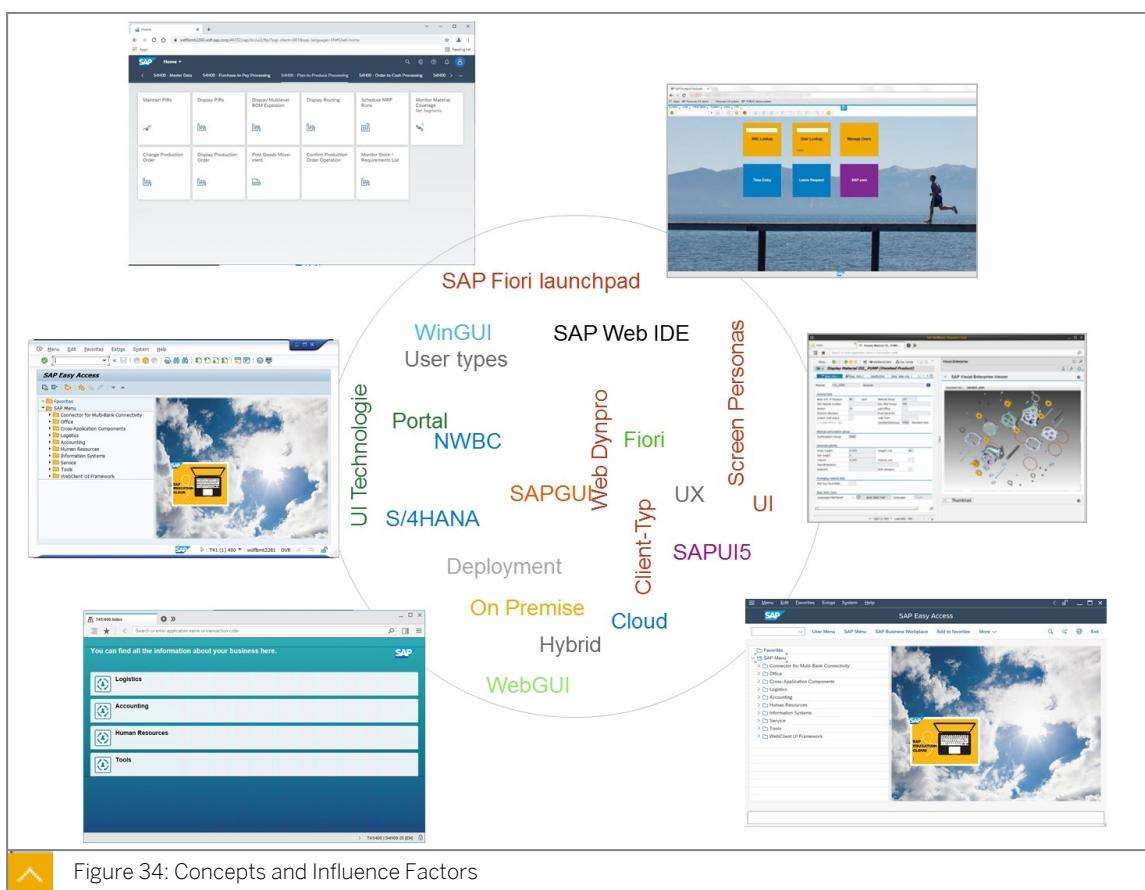
After completing this lesson, you will be able to:

- Use SAP Fiori applications and tools

#### SAP Fiori

Your enterprise plans to implement SAP S/4HANA and you want some insights into the SAP user experience strategy.

You are particularly interested in the SAP Fiori UI.



IT and the use of electronic devices is no longer reserved for experts and has spread throughout all social groups. High performance hardware stands against a wide variety of software products with different scope and uses. As a result, it is important that software is easy to use.

The main drivers of this development are smartphones and tablets with their easy-to-use and flexible user interfaces. These user interfaces are no longer required to provide maximum functionality but rather a comfortable user experience, which puts the focus on the consumer.

The focus on the expert user with many years of experience is now a matter of the past. Therefore, business software must adapt and transform too so that it provides good user experiences for all roles in an enterprise. The UI plays an important role in supporting this trend.

For SAP software products the challenge is to keep a clear view and to understand the overall SAP strategy in the area of user experience (UX).

### SAP User Experience

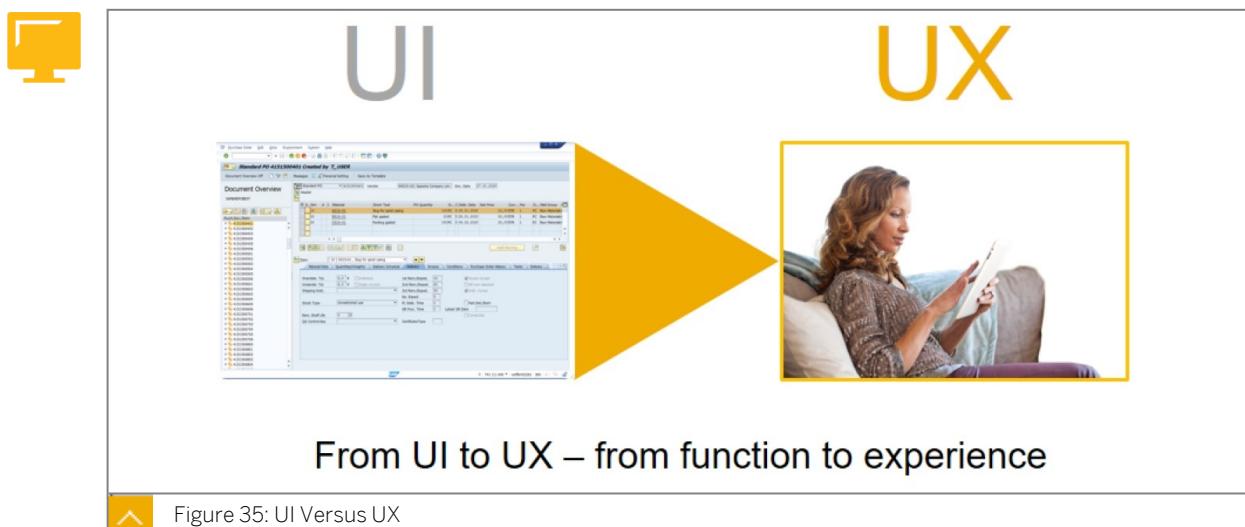


Figure 35: UI Versus UX

The terms **UI** and **UX** stand for two different ways of thinking:

- **UI**, from a software perspective, describes the interface between the user and the device. It aims at maximizing efficiency during use.
- **UX** takes on the perspective of the end user and aims at motivation and emotion not only during use but also before and after. UX tries to create a positive and motivating experience for the user.

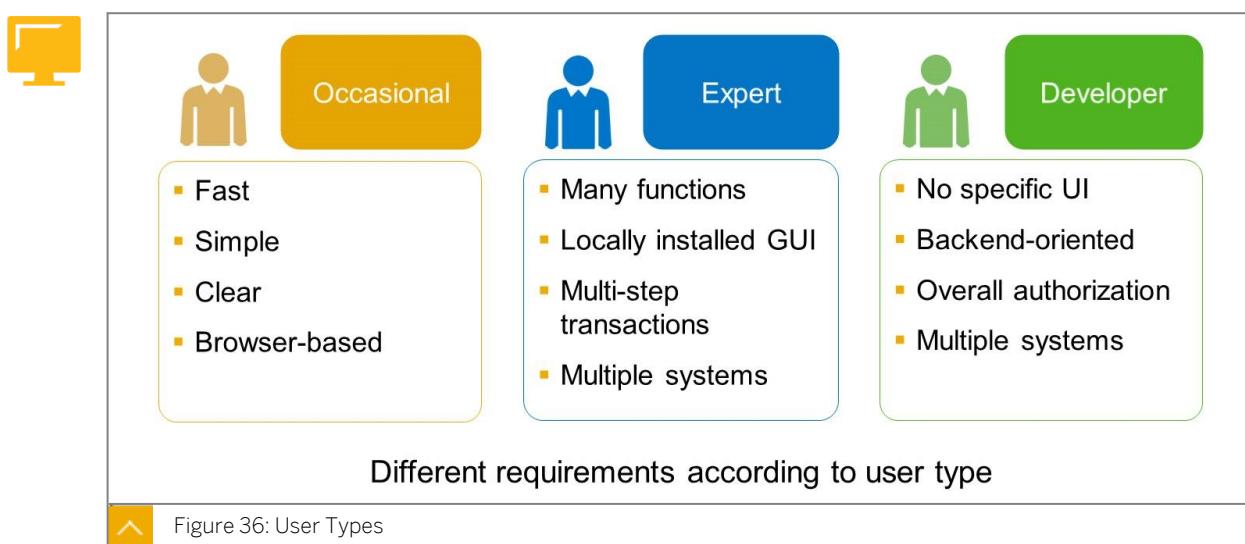


Figure 36: User Types

Various user types can be found depending on the structure of the specialized area and the IT department as well as the degree of digitization.

However, in almost every company there are three basic user types:

- Occasional user

Requires simple and easy-to-use applications. In many cases, single-step transactions are executed.

- Expert or key user

Knows the processes and the available applications in detail. This user often uses multiple systems and different UIs.

- Developer or programmer

Has detailed process and system knowledge and deals with the adaptation and extension of the existing applications. They usually look after several applications with different UIs.



#### Animation: User Types

For more information on *User Types*, please view the animation in the lesson *Using SAP Fiori* in your online course.

## SAP Fiori

You want to ensure that your users have the best possible experience when interacting with SAP Business Suite, and that they can access business critical applications on any device without compromises. You need a solution that integrates with your existing IT system landscape, and that can expand to cover your specific needs. You want to make sure that SAP Fiori meets these requirements.



SAP Fiori is the design system for all SAP products, for a delightful user experience – helping users get their work done more easily, on any device.

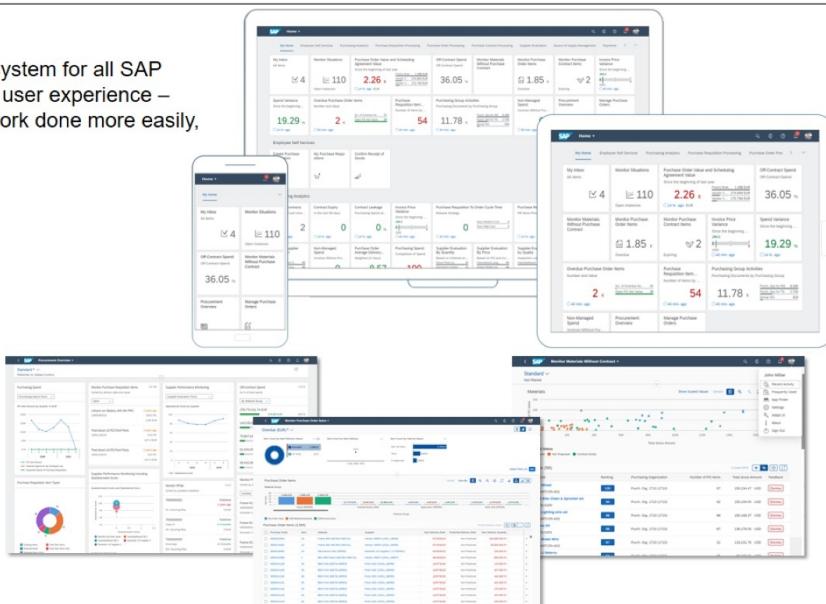


Figure 38: SAP Fiori

## Benefits

- Increased productivity – fast, direct access to relevant information and apps.
- Timely notifications - transparency on items needing your attention.
- Helps users decide what needs to be done next.
- Allows users to take quick and informed actions.
- Increased user satisfaction.

A key theme of SAP S/4HANA is simplification, and this certainly applies to the user experience. We use the term UX, rather than UI because we need to consider the overall experience of the user, rather than only the look of the screen. For example, if you went to a restaurant that was strong on food presentation, but where the service was poor, you would say that the overall experience was not good, and you would not be keen to repeat it.

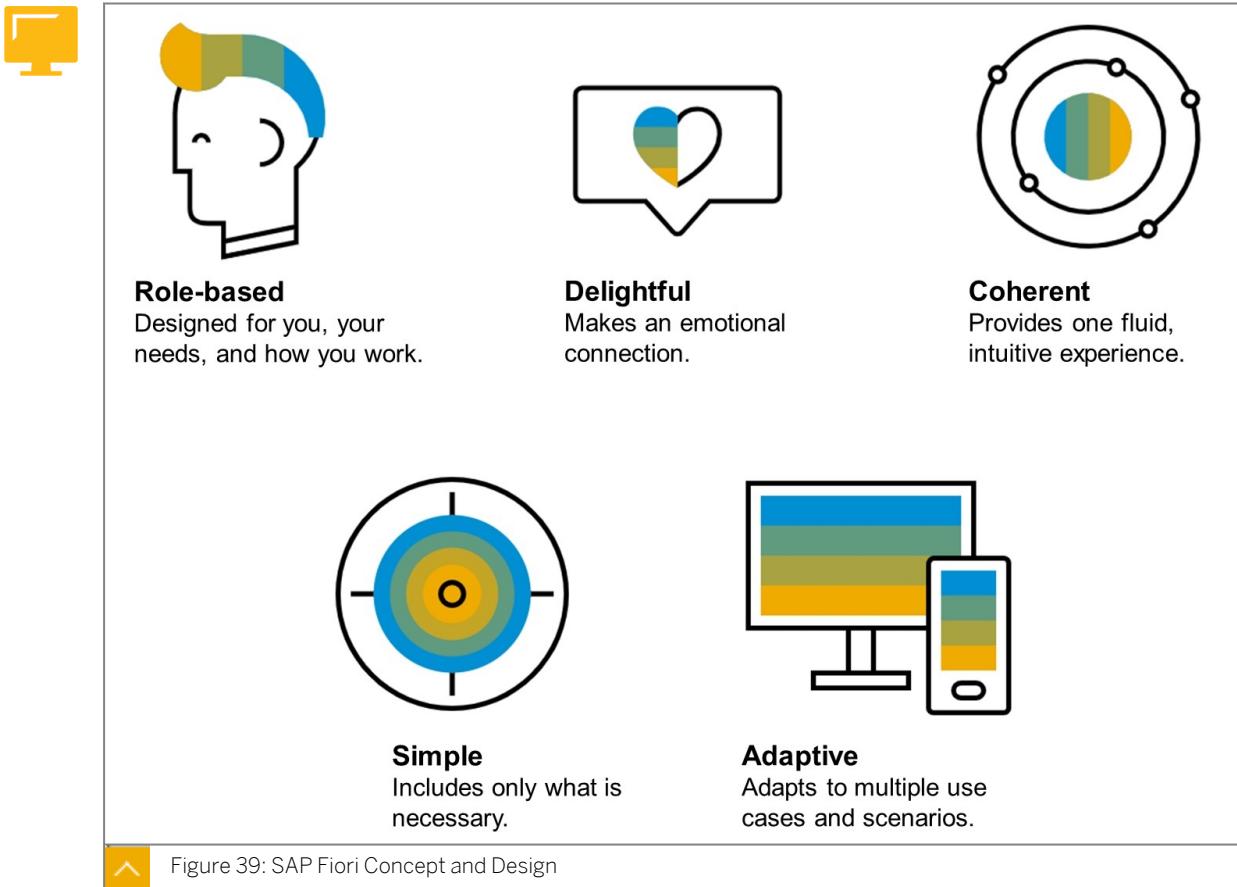
It is important to provide not only a great-looking UI, but also features that help the user become more productive, resulting in a good overall experience. This is what SAP Fiori delivers.

SAP Fiori is a completely new user experience, rather than an upgrade to any existing interface, such as SAP GUI, SAP Portal, or SAP Business Client. It works on any device that allows users to have the same experience, regardless of the device they choose to use. They can set up a basic sales order in the office using their desktop, then visit the customer to complete the configuration and agree pricing using a tablet. SAP Fiori provides the same look and feel and productivity features on all devices.

SAP Fiori apps are designed using a methodology called Design Thinking, which is a user-centric and solution-based approach to software and user interface design.

### **SAP Fiori Concept and Design**

SAP Fiori is a consistent and holistic user experience for business users for all lines of business and across devices and deployment options.



#### Animation: SAP Fiori Concept and Design

For more information on *SAP Fiori Concept and Design*, please view the animation in the lesson *Using SAP Fiori* in your online course.

The SAP Fiori concept is fundamentally a simplification of the user experience relying on modern design principles such as role-based, delightful, coherent, simple, and adaptive:

- **Role-based** means that it is designed for you, your needs, and how you work.
- **Delightful** means that it makes an emotional connection.
- **Coherent** means that it provides one fluid, intuitive experience.
- **Simple** means that it includes only what is necessary.
- **Adaptive** means that it adapts to multiple use cases and devices.

The SAP Fiori design is the visual design, information architecture, colors, and interaction patterns that are defined in the SAP Fiori design guidelines. Based on user roles and business processes, SAP Fiori simplifies doing business. SAP Fiori sets the standard for enterprise user experience by removing unnecessary complexity. We put users in control of their business tasks by giving them only what they really need. This is reflected in the five design principles already mentioned.

## SAP Fiori App Types

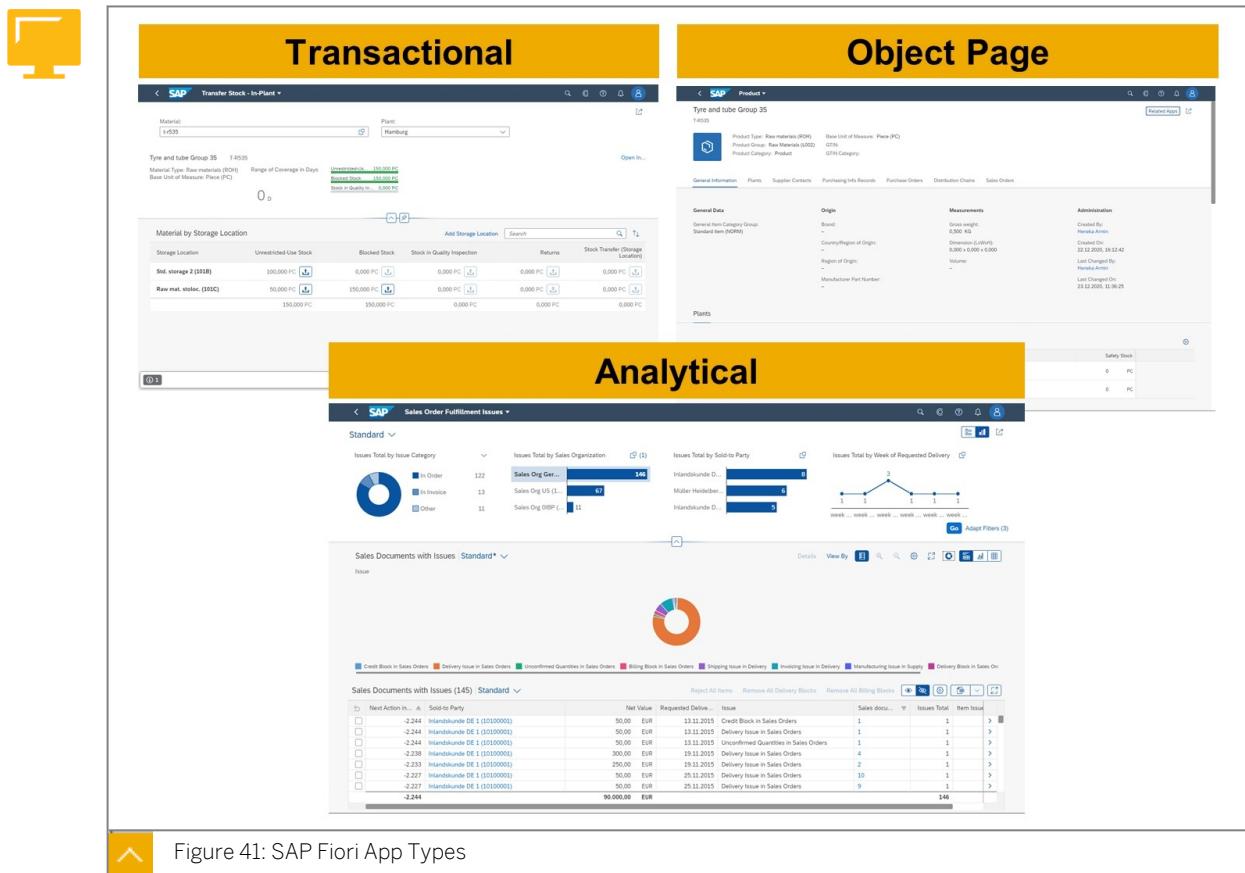


Figure 41: SAP Fiori App Types

SAP Fiori apps can be classified into different types. Examples include the following:

- **Transactional apps** offer task-based access to tasks like change, create, display (documents, master records), or entire processes with guided navigation.
- **Analytical apps** provide insight to action. They give you a visual overview of complex topics for monitoring or tracking purposes.
- **Object Pages** give you the opportunity to search and explore your data. They provide a 360 degree view on essential information about an object, and contextual navigation between related objects.



### Animation: SAP Fiori App Types

For more information on *SAP Fiori App Types*, please view the animation in the lesson *Using SAP Fiori* in your online course.

## SAP Fiori Launchpad Home page

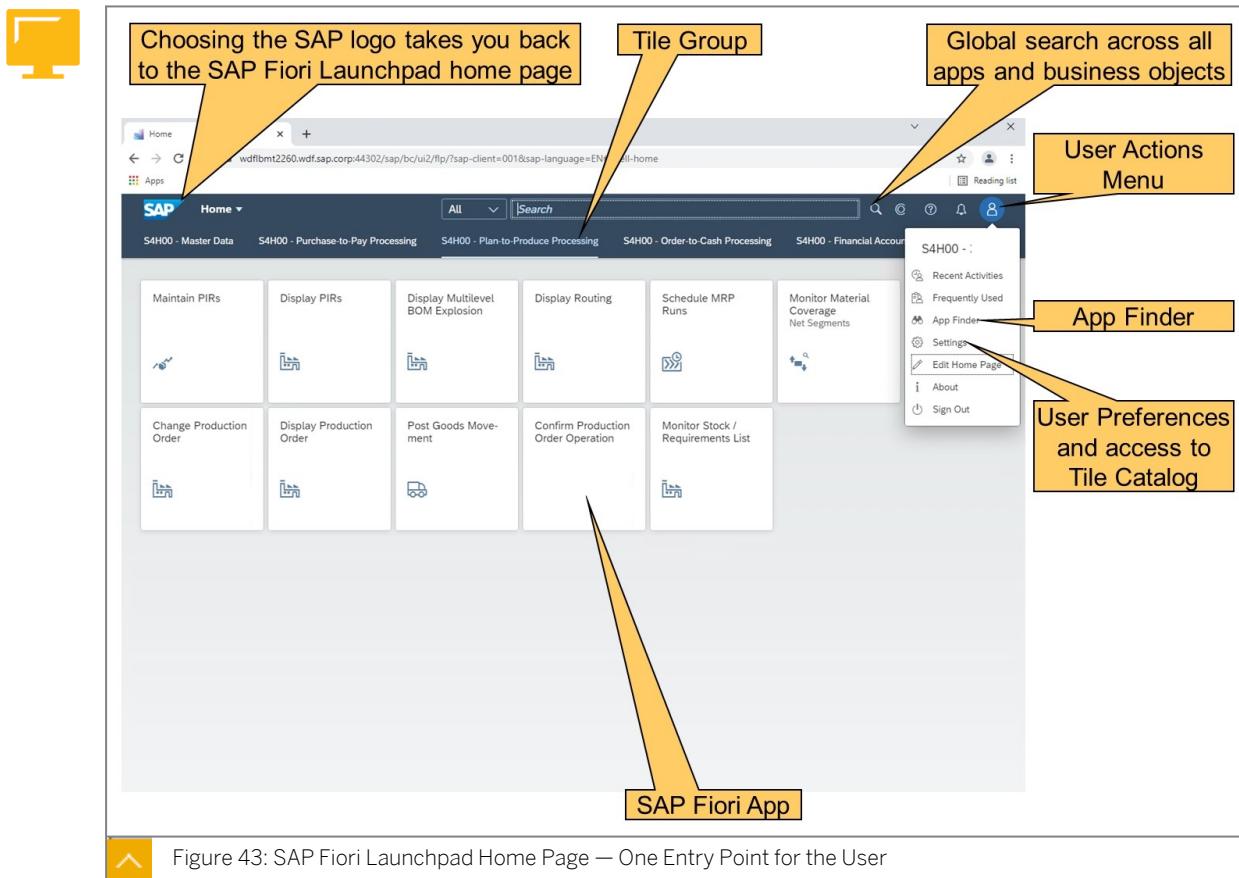


Figure 43: SAP Fiori Launchpad Home Page — One Entry Point for the User

The **SAP Fiori launchpad home page** is a shell that hosts **SAP Fiori apps**, and provides services such as navigation, personalization, embedded support, and application configuration. It is the entry point to **SAP Fiori apps** on mobile and desktop devices. The SAP Fiori launchpad home page displays a home page with tiles, which can display live status indicators, such as, the number of open tasks. Each tile represents a business application that the user can launch.

The **SAP Fiori apps** on the home page are arranged in **tile groups**. The user can personalize the layout of the SAP Fiori launchpad home page, by grouping, moving, and removing tiles. The user can also add, delete, rename, and reorder groups. The ability to personalize the SAP Fiori launchpad home page must be enabled in the launchpad configuration.

To add tiles to groups, the SAP Fiori launchpad home page provides a **tile catalog**, which displays all the tiles that are available to a user.

## In-app help

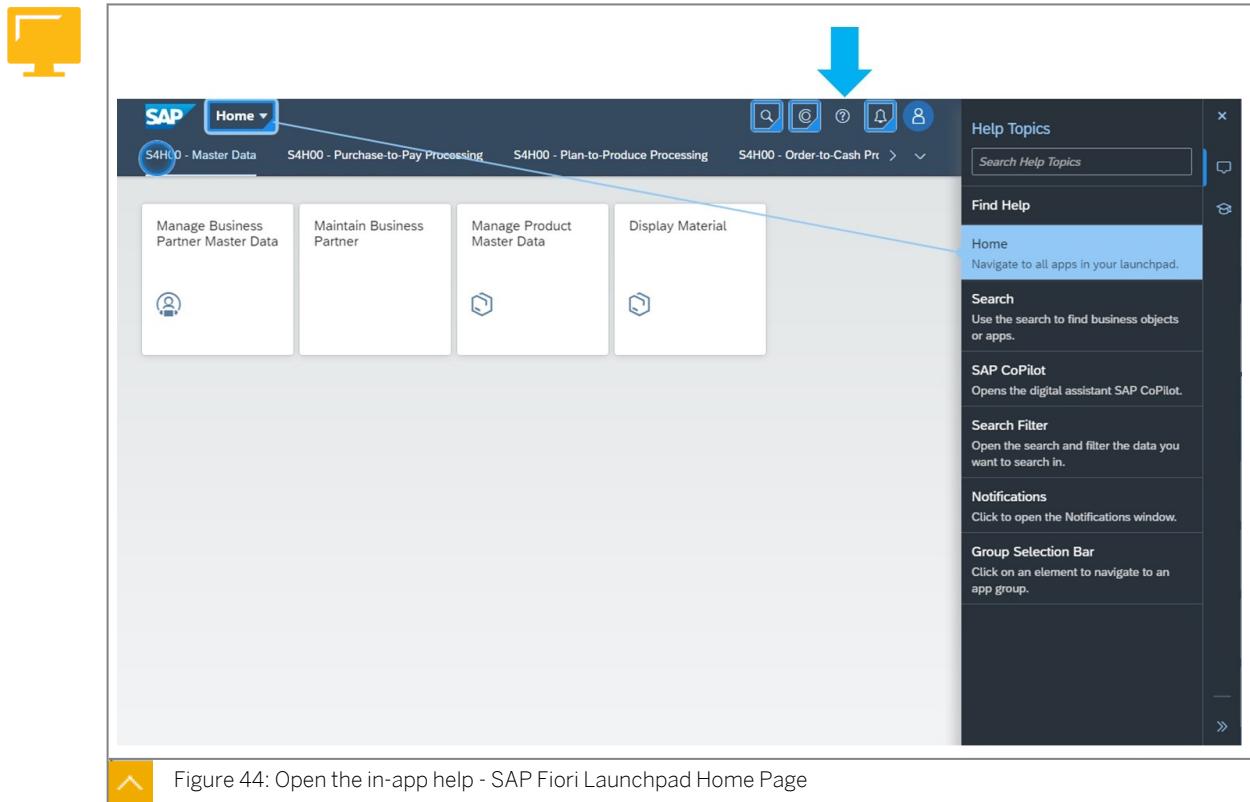


Figure 44: Open the in-app help - SAP Fiori Launchpad Home Page

The help carousel appears with help content or, additionally, further information on how to find help. You can also use **F1** to open the help.

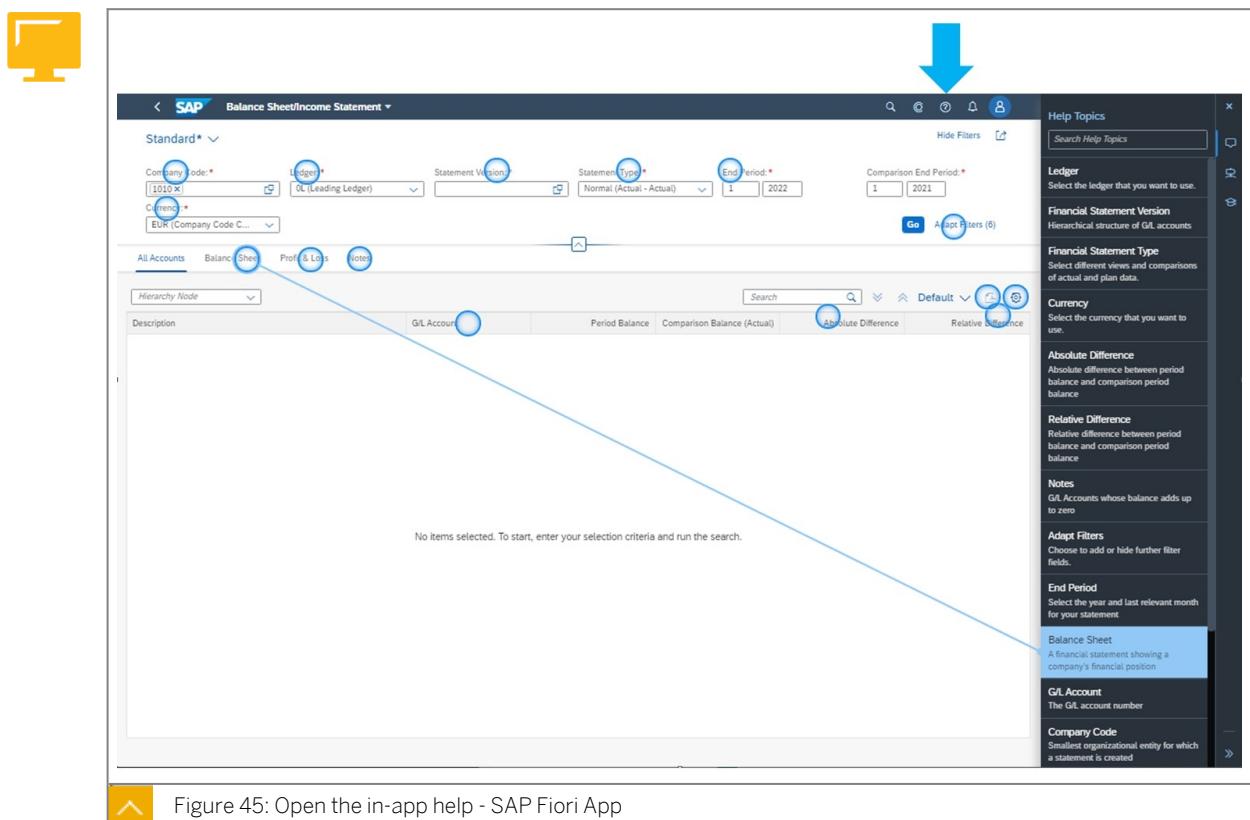
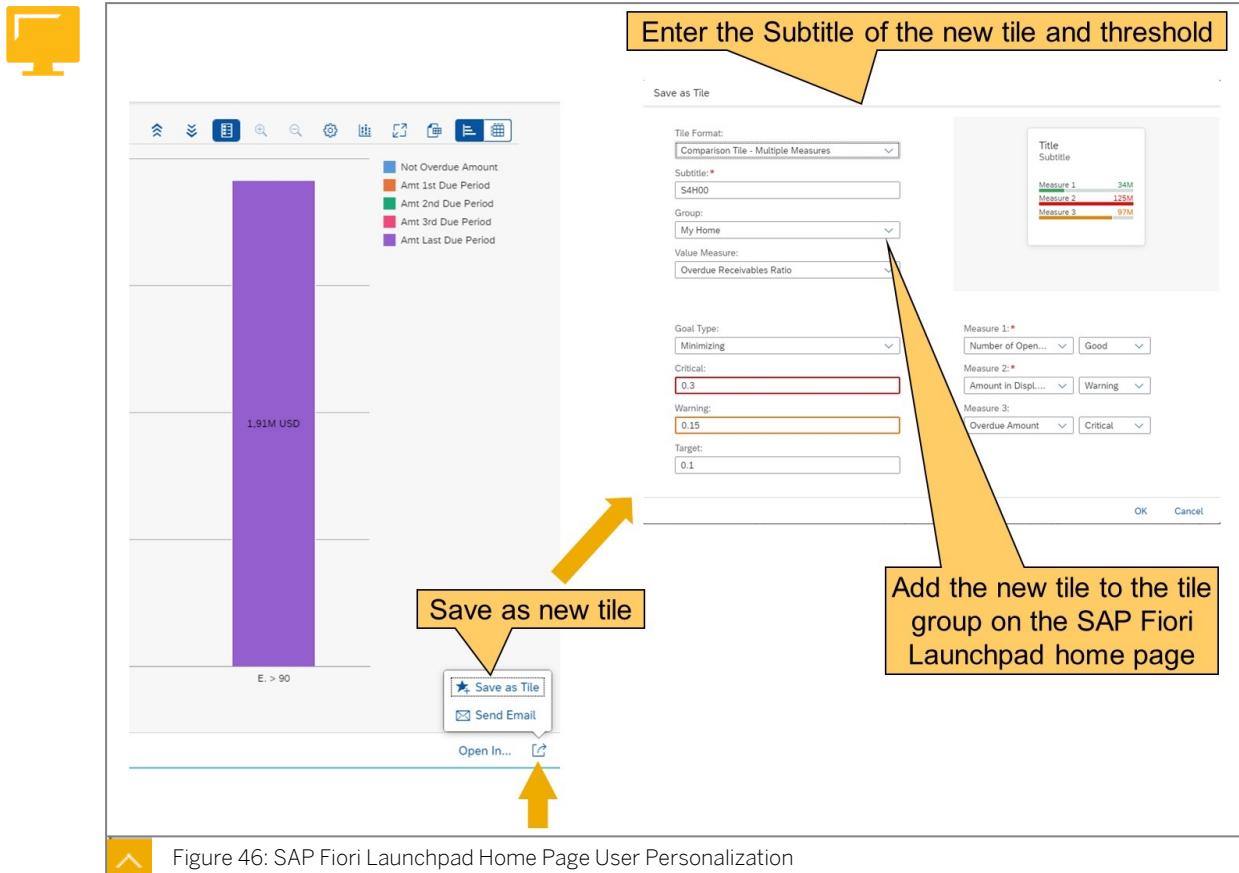


Figure 45: Open the in-app help - SAP Fiori App

Example for the in-app help: SAP Fiori App Balance Sheet/Income Statement.

### SAP Fiori Launchpad Home Page User Personalization



The following personalization options are available in SAP Fiori launchpad home page:

- Adding applications from the catalog assigned to them.
- Removing applications that you do not want to use.
- Modifying and adding applications for filtered report results.

For example, if the user is a group cash manager who is interested in the German market, the user can create an application to take them directly to the cash position of the German market. They can arrive at the cash position directly with one click from the SAP Fiori launch pad home page.

**SAP Fiori**, read more:

- <https://experience.sap.com/fiori-design-web/>
- <https://help.sap.com/fiori>
- <https://www.sap.com/products/fiori.html>

## Unit 2

### Exercise 1

# Discover SAP Fiori Applications



#### Simulation: Discover SAP Fiori Applications

For more information on *Discover SAP Fiori Applications*, please view the simulation in the lesson *Using SAP Fiori* in your online course.

Use the SAP Fiori apps reference library to find SAP Fiori applications for your role and learn about them.

1. Open the SAP Fiori apps reference library.
  2. Locate and display the **Sales Order Fulfillment Issues (Version 2)** application using the search features.
  3. Select the version of the application for SAP S/4HANA.
  4. Examine the sample screen image provided with this application.
  5. Open the App Documentation to discover more about this application.
  6. Identify the name of the Business Catalog(s) (SAP Fiori launchpad home page) to which this application belongs.
  7. What role assignment is required for use of this application?
- 
-

## Unit 2 Solution 1

# Discover SAP Fiori Applications



Simulation: Discover SAP Fiori Applications

For more information on *Discover SAP Fiori Applications*, please view the simulation in the lesson *Using SAP Fiori* in your online course.

Use the SAP Fiori apps reference library to find SAP Fiori applications for your role and learn about them.

1. Open the SAP Fiori apps reference library.
  - a) Open a browser (e.g. Google Chrome or Firefox).
  - b) Enter the following URL: <https://fioriappslibrary.hana.ondemand.com/sap/fi/x/externalViewer/>

Alternatively, you can use Google to search for **fioriapps**.
2. Locate and display the **Sales Order Fulfillment Issues (Version 2)** application using the search features.
  - a) On the left pane, choose SAP Fiori apps for SAP S/4HANA.
  - b) Choose by Lines of Business.
  - c) Choose Sales.
  - d) In the Search field, enter **fulfill** (it is not case sensitive) and choose Search.

The screenshot shows the SAP Fiori Apps Reference Library interface. At the top, there's a header with the title 'SAP Fiori Apps Reference Library' and a search bar containing 'fioriappslibrary.hana.ondemand.'. Below the header is a dark blue navigation bar with icons for home, SAP logo, and search. The main content area has a teal header bar that says 'Filtered by: Product Suite (SAP S/4HANA), UI Technology (16), Line of Business (1)'. Below this, there's a search bar with the word 'Search' and a magnifying glass icon. The main list area shows 'Apps (623)' with a refresh button. At the bottom of the screen, there's a footer bar with a yellow arrow pointing up and the text 'Figure 48: Search Fiori App'.

- e) In the result area, choose the **Sales Order Fulfillment Issues (Version 2)** application.

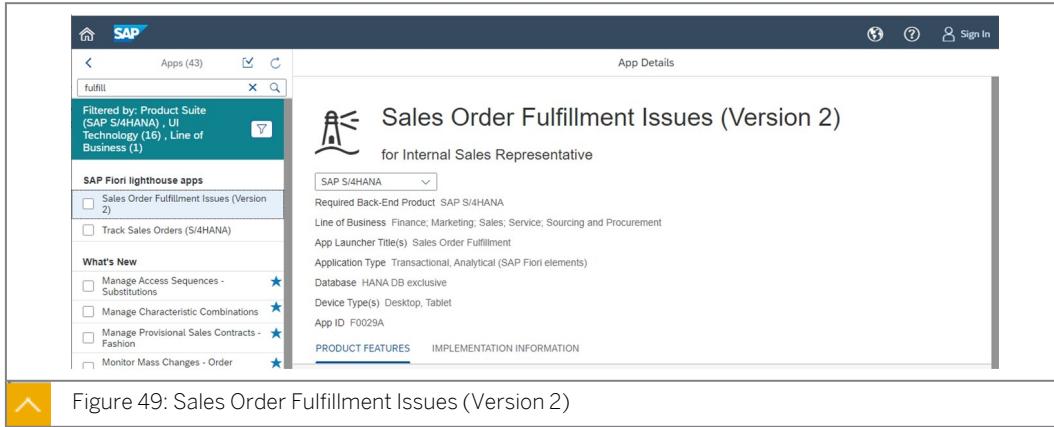


Figure 49: Sales Order Fulfillment Issues (Version 2)

The main area of the screen displays information about this application.

3. Select the version of the application for SAP S/4HANA.

- a) Select SAP S/4HANA from the drop-down menu.

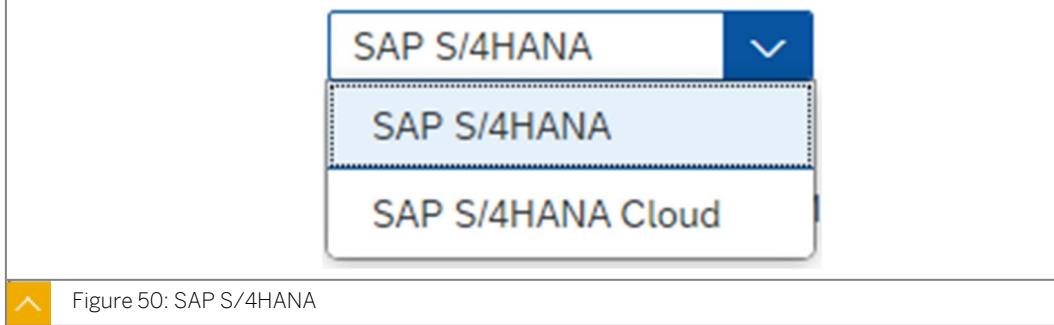


Figure 50: SAP S/4HANA

4. Examine the sample screen image provided with this application.

- a) Scroll down until you see the sample screen image.

If you click an image, it will zoom in. Use to close the zoomed image.

5. Open the App Documentation to discover more about this application.

- a) Choose *Read more* in the *App Documentation* link.

A new browser page opens.

- b) After studying the documentation, close the browser page.

6. Identify the name of the Business Catalog(s) (SAP Fiori launchpad home page) to which this application belongs.

- a) Select the *Implementation Information* tab.



Figure 51: Implementation Information Tab

- b) Expand the *Configuration* section and make sure that you have selected the delivery date: SAP S/4HANA 2021.

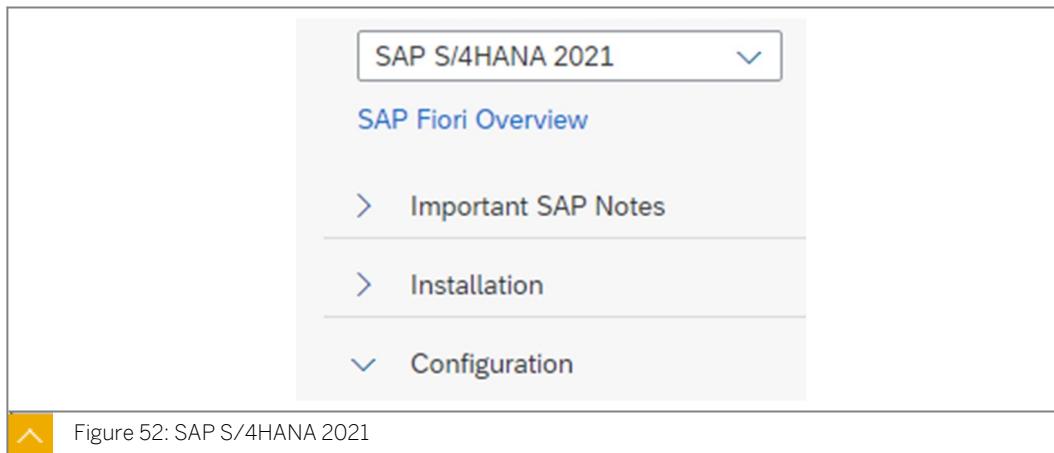


Figure 52: SAP S/4HANA 2021

Under the *Business Catalog(s)* section, you see the Business Catalog (SAP Fiori launchpad home page)

- **SAP\_SD\_BC\_SLS\_ORD\_MNTRG**, Sales - Sales Order Monitoring  
and
- **SAP\_SD\_BC\_SLS\_ORD\_TRACKING**, Sales - Sales Order Monitoring and Tracking

7. What role assignment is required for use of this application?

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- 
- a) Under the *Business Role(s)* selection, you see the PFCG Role(s).  
In this case, the application belongs to the role
- **SAP\_BR\_INTERNAL\_SALES\_REP**, Internal Sales Representative  
and
  - **SAP\_BR\_SALES\_MANAGER**, Sales Manager
- The user requires these one of these roles for use of this application.
- b) Close the browser page.

## Unit 2

### Exercise 2

# Operate the SAP Fiori Launchpad Home Page and SAP Fiori Applications



Simulation: Operate the SAP Fiori Launchpad Home Page and SAP Fiori Applications

For more information on *Operate the SAP Fiori Launchpad Home Page and SAP Fiori Applications*, please view the simulation in the lesson *Using SAP Fiori* in your online course.

Search for applications, add applications to your home tile group, create a new custom tile group, and launch and navigate through an application.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Start the SAP Fiori launchpad home page from the Windows apps menu, using your user **S4H00-##**, and password **Welcome1**.
2. Find all *Application* tiles that contain the word **stock** in their title using the search feature, and return to the SAP Fiori launchpad home page to display all applications.
3. Find all objects in the system that include the word **Germany**, and return to the SAP Fiori launchpad home page to display all applications.
4. View and maintain the user *Settings* for your SAP Fiori launchpad home page.

End users maintain SAP Fiori launchpad home page settings in the *Settings* dialog of their SAP Fiori launchpad home page.

Some applications can be launched with user-specific default values. You can view these values and edit the default values if necessary.

Set your default values for *Financial Accounting*:

- *Company Code*: **1010**

Set your default values for *Material Management*:

- *Plant*: **1010**

Set your default values for *Sales and Billing*:

- *Sales Organization (Sales Org.)*: **1010**

- Distribution Channel (*Distr. Channel*): **10**
  - Division: **00**
- .
5. Create a custom tile group named **My Applications** and assign the following applications to your new group:
- *Manage Business Partner Master Data*
  - *Create Sales Orders VA01*
  - *Change Sales Orders VA02*
  - *Create Outbound Deliveries From Sales Orders*
  - *Pick Outbound Delivery*
  - *Create Billing Documents VF04*
  - *Sales Order Fulfillment Analyze and Resolve Issues*
  - *Query Browser Browse Views*
- Ensure that the applications appear in the above sequence, from left to right in your new tile group.
- Change the name of the *Change Sales Order* tile to **Modify my orders**.
- Enter the description text **CFO to agree all Q4 discounts**.
6. Launch the *Sales Order Fulfillment Analyze and Resolve Issues* application and display only orders that have *Shipping Issues in Delivery*.
7. Open the order at the top of the *Sales Documents with Issues* list and find out why the order is not fulfilled using the *Process Flow* view.
8. What option is the SAP Fiori application offering in this case ?

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9. Return to the SAP Fiori launchpad home page.

## Unit 2 Solution 2

# Operate the SAP Fiori Launchpad Home Page and SAP Fiori Applications



Simulation: Operate the SAP Fiori Launchpad Home Page and SAP Fiori Applications

For more information on *Operate the SAP Fiori Launchpad Home Page and SAP Fiori Applications*, please view the simulation in the lesson *Using SAP Fiori* in your online course.

Search for applications, add applications to your home tile group, create a new custom tile group, and launch and navigate through an application.

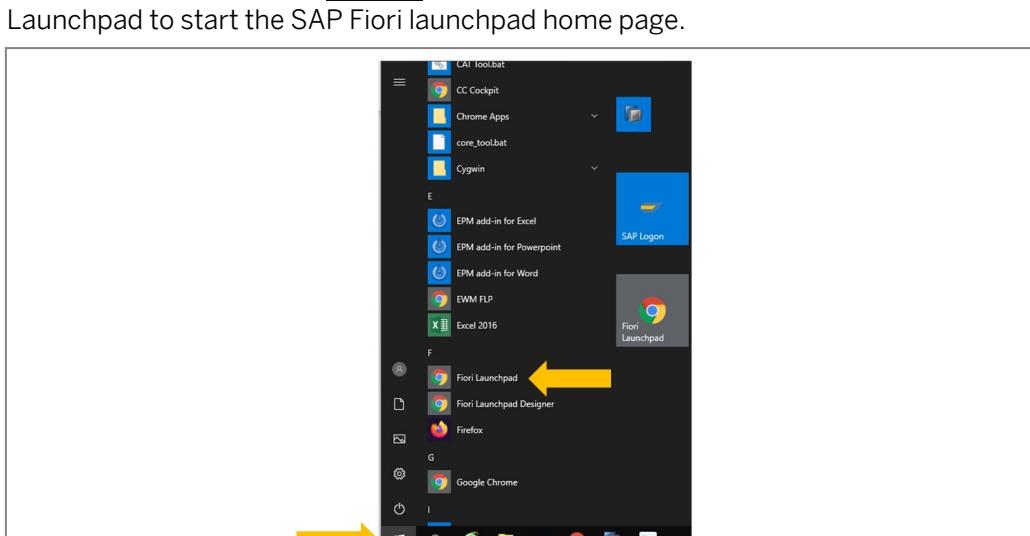


Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Start the SAP Fiori launchpad home page from the Windows apps menu, using your user **S4H00-##**, and password **Welcome1**.

a) Choose the Windows icon  and choose  **Fiori Launchpad** to start the SAP Fiori launchpad home page.



- b) Enter your user **S4H00-##** and password **Welcome1**.

- c) Choose the language **EN**.
  - d) Choose **Log On**.
2. Find all *Application* tiles that contain the word **stock** in their title using the search feature, and return to the SAP Fiori launchpad home page to display all applications.
- a) Choose  (Search ) at the top right of the screen.

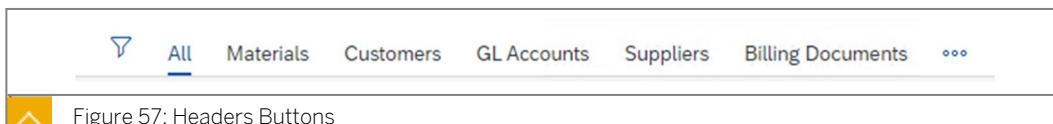
The Search field opens.
  - b) Choose **Apps**.
- 

A screenshot of the SAP Fiori launchpad search interface. At the top, there is a search bar with the placeholder "Search in: Apps". Below the search bar is a dropdown menu with two options: "All" and "Apps". The "Apps" option is highlighted with a blue selection bar. At the bottom left of the search interface is a yellow arrow pointing upwards.

Figure 55: Search Apps
- c) In the Search field, enter the word **stock** and choose *Enter*.

Applications tiles appear in the result.
  - d) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.
- All applications are visible again.
3. Find all objects in the system that include the word **Germany**, and return to the SAP Fiori launchpad home page to display all applications.
- a) Ensure that the Search drop down is set to *All*.
  - b) In the Search field, enter **Germany** and choose *Enter*.
- 

A screenshot of the SAP Fiori launchpad search interface. The search bar now contains the word "Germany". The dropdown menu below the search bar is still set to "All". At the bottom left of the search interface is a yellow arrow pointing upwards.

Figure 56: Search for Germany
- You see a list of all objects where Germany is mentioned.
- c) Click across the header buttons to move between the different types of objects, such as *Customers* and *Suppliers*.
- 

A screenshot of the SAP Fiori launchpad header buttons. The buttons available are "All", "Materials", "Customers", "GL Accounts", "Suppliers", "Billing Documents", and "...". The "All" button is currently selected and underlined. At the bottom left of the header buttons is a yellow arrow pointing upwards.

Figure 57: Headers Buttons
- d) Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.
- All applications are visible again.
4. View and maintain the user *Settings* for your SAP Fiori launchpad home page.

End users maintain SAP Fiori launchpad home page settings in the *Settings* dialog of their SAP Fiori launchpad home page.

Some applications can be launched with user-specific default values. You can view these values and edit the default values if necessary.

Set your default values for *Financial Accounting*:

- *Company Code: 1010*

Set your default values for *Material Management*:

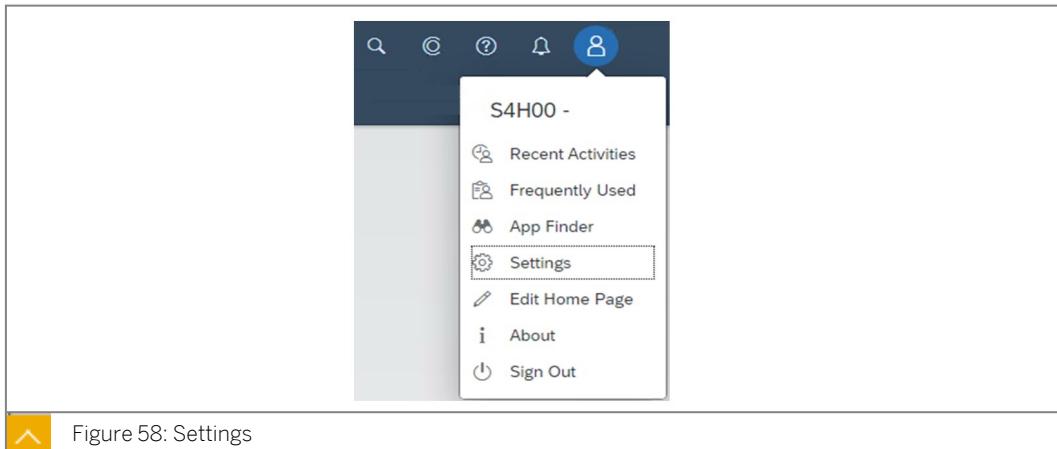
- *Plant: 1010*

Set your default values for *Sales and Billing*:

- *Sales Organization (Sales Org.): 1010*
- *Distribution Channel (Distr. Channel): 10*
- *Division: 00*

a) Start the personalize mode by choosing the  (User) icon at the top right corner of your screen.

b) Choose *Settings*.



c) Choose *Default Values*.

Edit Default Values for *Financial Accounting*:

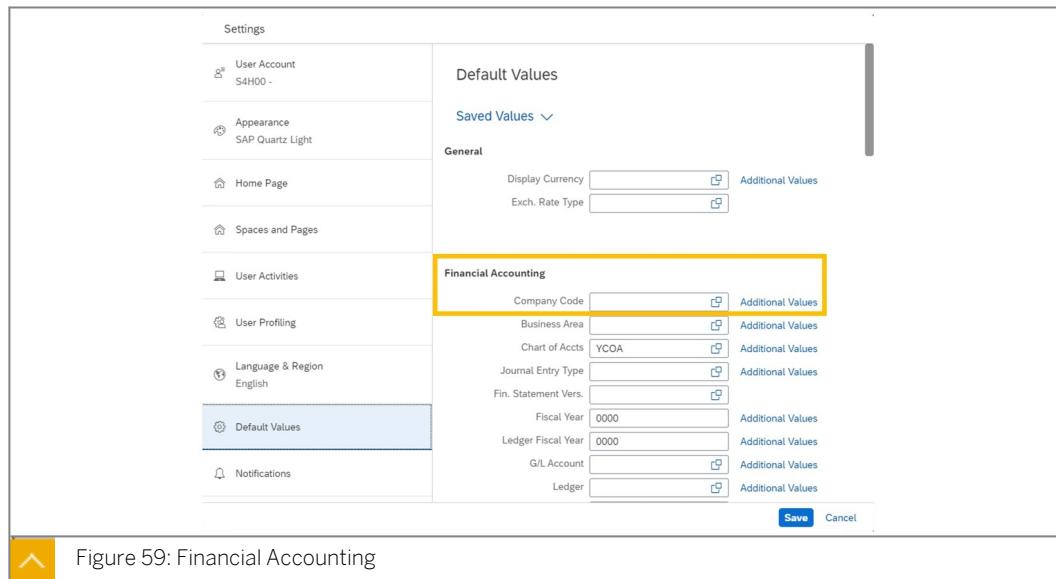


Figure 59: Financial Accounting

d) Set the Default Values as:

- *Company Code: 1010*

e) Choose *Default Values*.

Edit Default Values for *Material Management*:

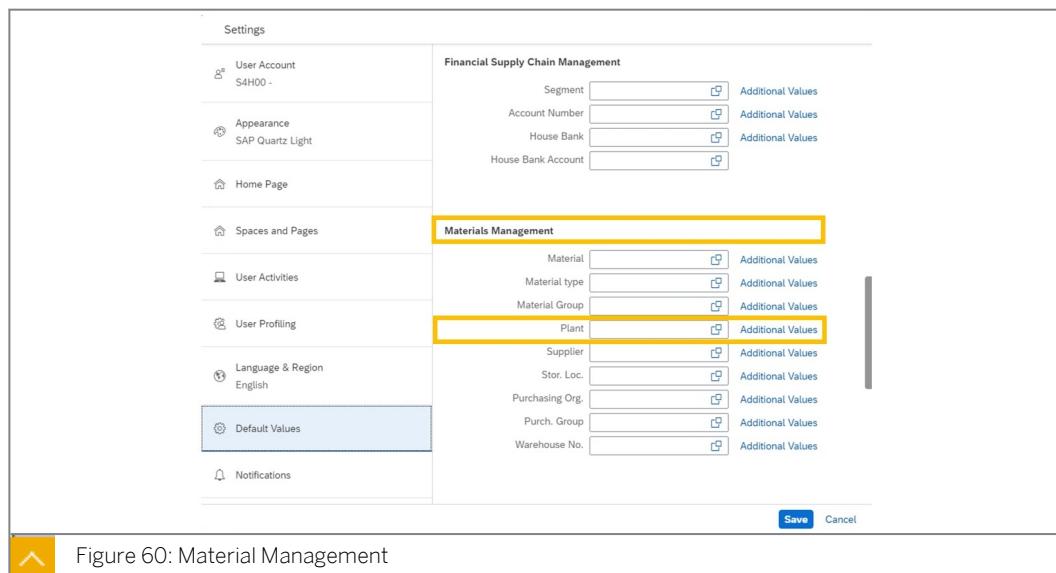


Figure 60: Material Management

f) Set the Default Values as:

- *Plant: 1010*

g) Choose *Default Values*.

Edit Default Values for *Sales and Billing*:

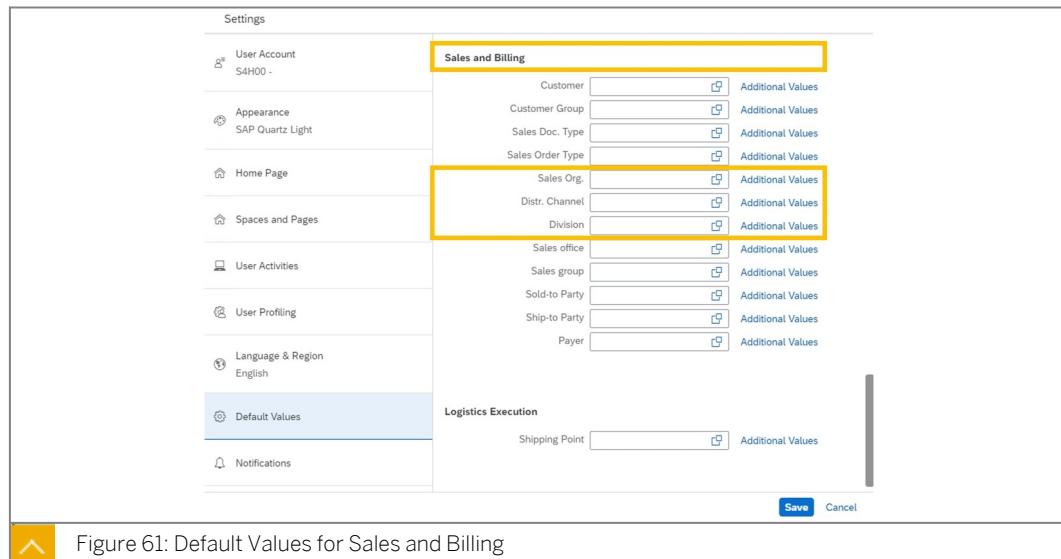


Figure 61: Default Values for Sales and Billing

#### h) Set the Default Values as:

- *Sales Org.: 1010*
- *Distr. Channel: 10*
- *Division: 00*

#### i) Choose Save.

### 5. Create a custom tile group named **My Applications** and assign the following applications to your new group:

- *Manage Business Partner Master Data*
- *Create Sales Orders VA01*
- *Change Sales Orders VA02*
- *Create Outbound Deliveries From Sales Orders*
- *Pick Outbound Delivery*
- *Create Billing Documents VF04*
- *Sales Order Fulfillment Analyze and Resolve Issues*
- *Query Browser Browse Views*

Ensure that the applications appear in the above sequence, from left to right in your new tile group.

Change the name of the *Change Sales Order* tile to **Modify my orders**.

Enter the description text **CFO to agree all Q4 discounts**.

- a) Start the personalize mode by choosing the  (User) icon at the top right corner of your screen.

- b) Choose *Edit Home Page*.

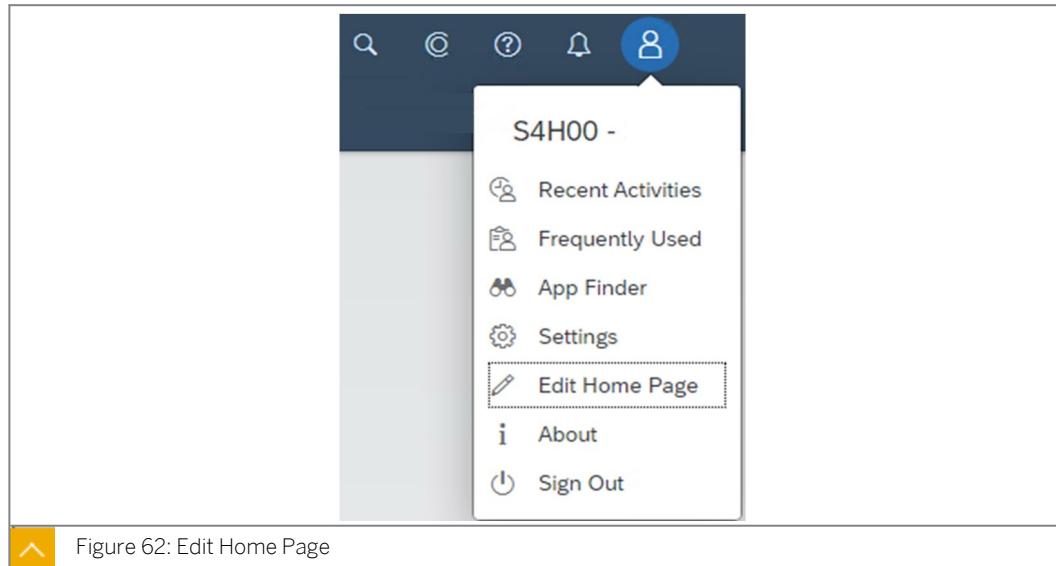


Figure 62: Edit Home Page

- c) To create a new tile group **at the top of the screen**, choose **+ Add Group**.
- d) Maintain the name of the tile group by overwriting the text *Enter group name* with the new name **My Applications**.
- e) To add an application, choose the **+** sign (*Open App Finder*) within the new group.
- f) Use the application catalog selector drop-down list on the left to choose **Sales – Sales Order Processing**.

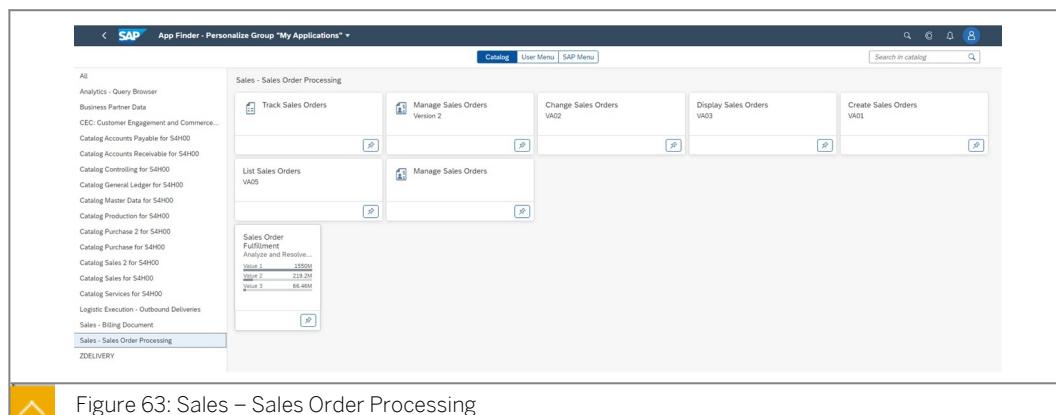
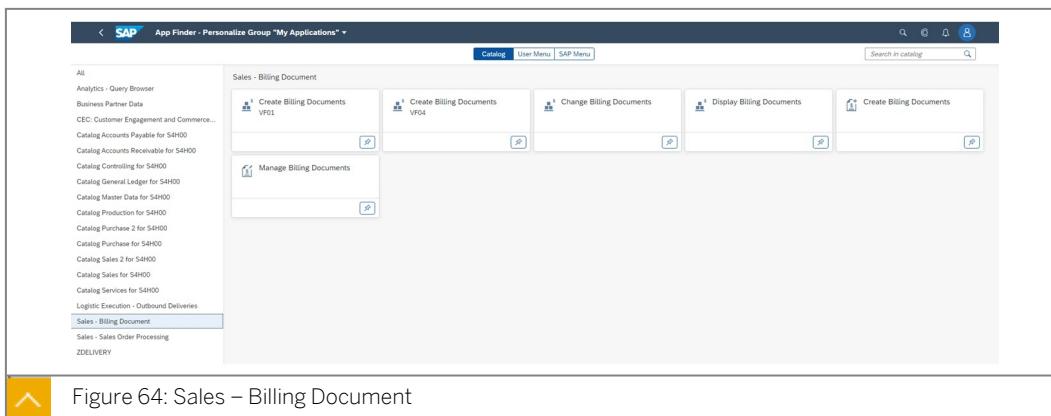


Figure 63: Sales – Sales Order Processing

- g) Choose the (pin) icon below the *Create Sales Orders VA01* application to add it to your group.
- h) Choose the (pin) icon below the *Change Sales Orders VA02* application to add it to your group.
- i) Choose the (pin) icon below the *Sales Order Fulfillment Analyze and Resolve Issues* application to add it to your group.

- j) Use the application catalog selector drop-down list on the left to choose **Sales – Billing Document**.



- k) Choose the (pin) icon below the *Create Billing Documents VF04* application to add it to your group.
- l) Use the application catalog selector drop-down list on the left to choose **Logistic Execution - Outbound Deliveries**.
- m) Choose the (pin) icon below the *Create Outbound Deliveries From Sales Orders* application to add it to your group.
- n) Choose the (pin) icon below the *Pick Outbound Delivery* application to add it to your group.
- o) Use the application catalog selector drop-down list on the left to choose **Analytics – Query Browser**.
- p) Choose the (pin) icon below the *Query Browser Browse Views* application to add it to your group.
- q) Use the application catalog selector drop-down list on the left to choose **Business Partner Data**.
- r) Choose the (pin) icon below the *Manage Business Partner Master Data* application to add it to your group.
- s) On the top left, choose (SAP Logo) to return to the personalize screen.
- t) Reorganize the tiles by dragging them so that they appear from left to right in the following sequence:

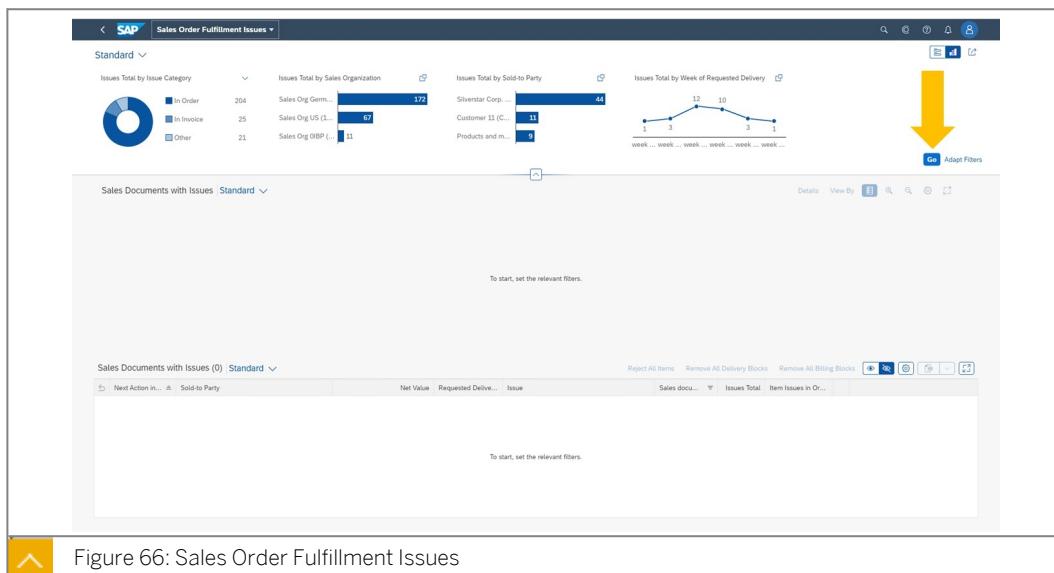
- Manage Business Partner Master Data
  - Create Sales Orders VA01
  - Change Sales Orders VA02
  - Create Outbound Deliveries From Sales Orders
  - Pick Outbound Delivery
  - Create Billing Documents VF04
  - Sales Order Fulfillment Analyze and Resolve Issues
  - Query Browser Browse Views
- u) On the *Change Sales Orders VA02* tile, choose the  (three dots) icon at the bottom and select the *Edit Tile Information* option.
- v) Overwrite the tile name (Title) with **Modify my orders**, overwrite the Subtitle with **Use to adjust pricing**, and enter the description text **CFO to agree all Q4 discounts**.
- w) Choose OK.
- x) To exit the personalize mode, choose



 Figure 65: Close  
(Exit Edit Mode) at the bottom right corner of your screen.

6. Launch the *Sales Order Fulfillment Analyze and Resolve Issues* application and display only orders that have *Shipping Issues in Delivery*.

- a) From your new personal tile group, choose the *Sales Order Fulfillment Analyze and Resolve Issues* tile.



- b) Choose Go.

- c) Click on *Shipping Issue in Delivery* in the middle of the screen to show only orders that have Shipping Issue in Delivery.

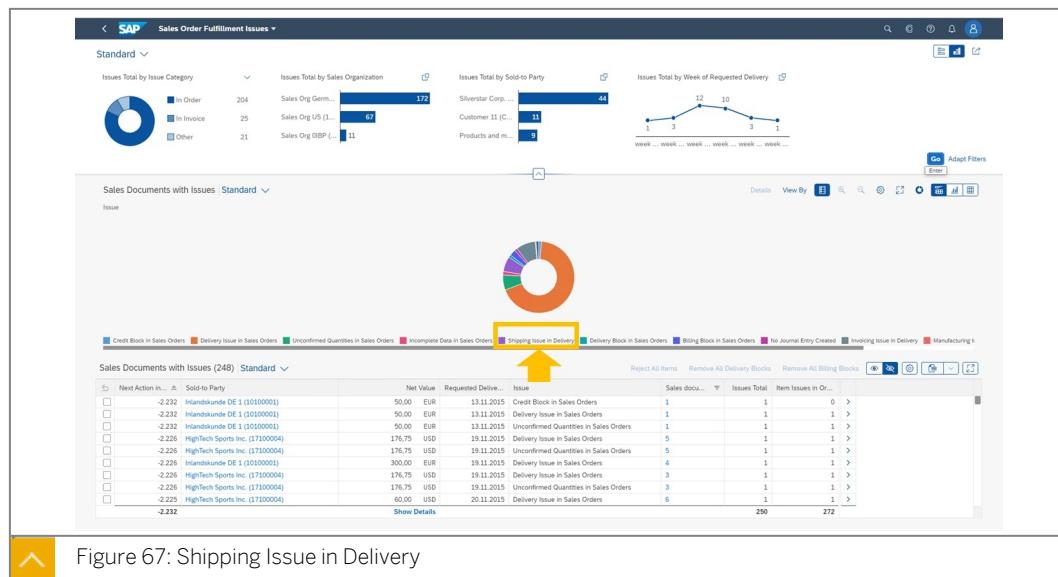


Figure 67: Shipping Issue in Delivery

7. Open the order at the top of the *Sales Documents with Issues* list and find out why the order is not fulfilled using the *Process Flow* view.

- a) Sales Documents with Shipping Issue in Delivery

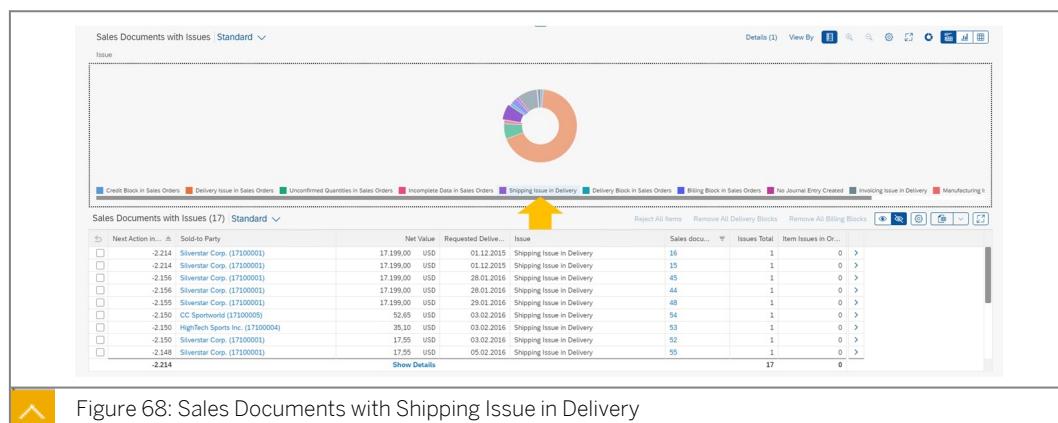
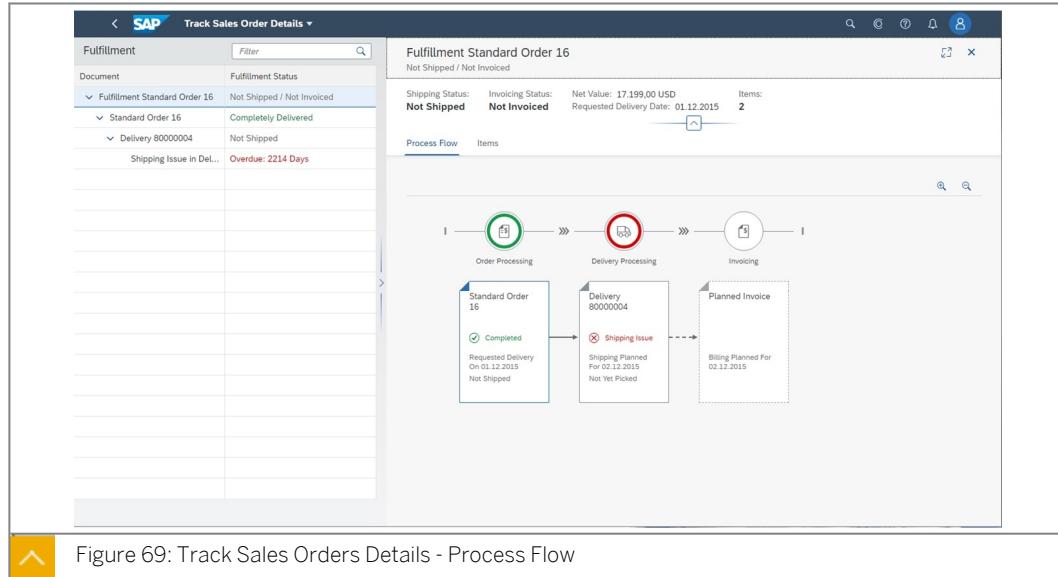


Figure 68: Sales Documents with Shipping Issue in Delivery

- b) To open the details view, choose the first order and click the icon on the right side of the item line in the list.



c) Notice the red circle around *Delivery Processing* and the text *Shipping Issue*.

8. What option is the SAP Fiori application offering in this case ?

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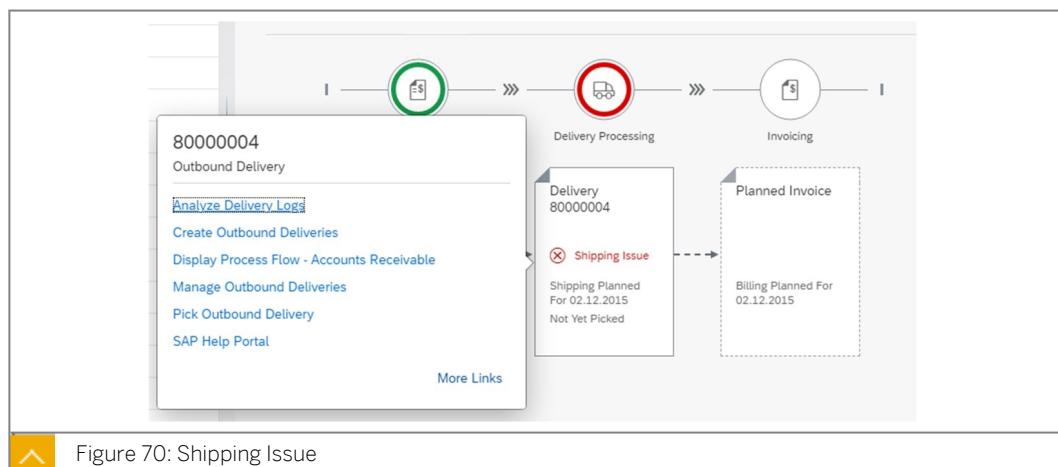


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a) Click the text *Shipping Issue*



You see the offerings:

- *Analyze Delivery Logs*
- *Create Outbound Deliveries*
- *Display Process Flow - Accounts Receivable*

- *Manage Outbound Deliveries*
- *Pick Outbound Delivery*
- *SAP Help Portal*

9. Return to the SAP Fiori launchpad home page.

- a) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.



## LESSON SUMMARY

You should now be able to:

- Use SAP Fiori applications and tools

# Using the SAP Business Client – Optional



## LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Use the SAP Business Client

## SAP Business Client

SAP Business Client is a user interface (UI) that presents a single entry point to different SAP business applications and technologies. It is a high-fidelity shell that integrates various UI technologies and design generations aimed at a more efficient, intuitive, and complete user experience over different UI technologies, such as, Web Dynpro ABAP, SAP GUI transactions, and SAP Fiori apps. Within the SAP Business Client, users can move seamlessly between Web Dynpro and SAP GUI transactions.

Offering different connection types, the SAP Business Client supports the following set-ups:

- System connection type **SAP Fiori Launchpad**:

The SAP Business Client acts as a Windows-based desktop browser for the SAP Fiori launchpad with the ability to launch classic Dynpro applications (SAP GUI transactions) using an embedded SAP GUI for Windows.

- System connection type **SAP Business Client**:

The SAP Business Client provides role-based access to applications in an ABAP back end system using PFCG roles which centrally hold SAP GUI, Web Dynpro, Fiori, and various Web content applications.

- System connection type **SAP Logon**:

The SAP Business Client embeds pure SAP GUI system connections, allowing you to connect to any SAP NetWeaver AS ABAP release. However, no usability enhancements such as role-based navigation or search are available.

The desktop version of SAP Business Client has a modern and simple look and feel, and implements an easy-to-use, Web browser-like user experience coupled with easy navigation and a focus on content (tabbed browsing).

The figure, Screen Areas of SAP Business Client 7.70, shows the main screen areas of SAP Business Client, comprising the shell, content area, and the side panel.



Animation: Screen Areas of SAP Business Client 7.70

For more information on *Screen Areas of SAP Business Client 7.70*, please view the animation in the lesson *Using the SAP Business Client – Optional* in your online course.

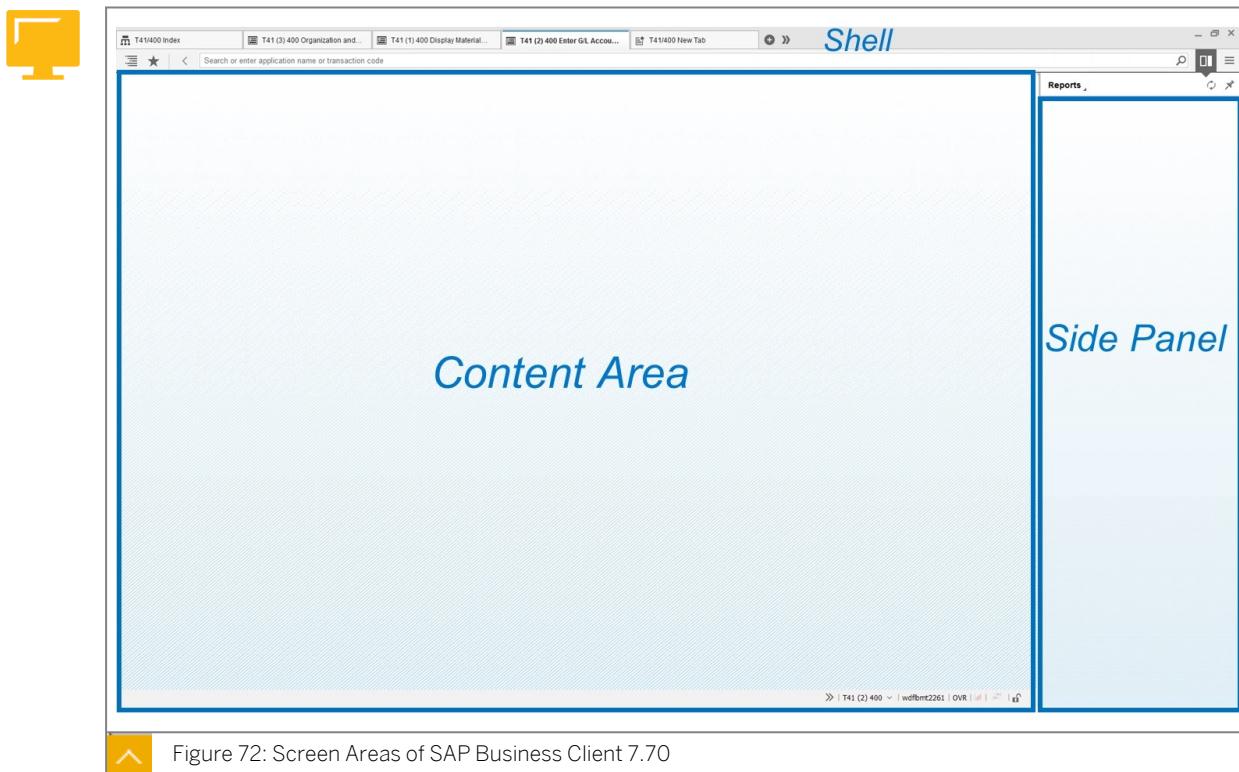


Figure 72: Screen Areas of SAP Business Client 7.70

The desktop version allows you to adjust the appearance and settings of the business client to meet your personal and technical requirements, for example by selecting your theme or branding options.

The shell aims at reducing the space consumed by the client in favor of applications running in the content area where users do their actual work. They can use the side panel to display additional context-sensitive information that relates to the main application. Users can open the menu from the icon on the left corner on the top of the header area and make system settings, customize view and personalization options, and access the help and support functions, including the product documentation. The presentation of the menu as a drop-down menu also helps to save screen space at the top of the shell.

The shell design is intentionally neutral to frame content from diverse applications and technologies, such as, Web Dynpro or SAP GUI transactions. The shell for the desktop client is rendered in the Corbu design by default. This is a theme with a light, neutral design, and enlarged resolution for better readability. The user can customize the appearance of the shell and content area by switching the theme in the personal settings. It is possible to select either a dark or light flavor, which only affects the header area. The high contrast theme is also available, which triggers a theme change in the client, Web Dynpro, and SAP GUI pages. All content except for embedded Web URL content is displayed with the high contrast theme.

With a tab-based navigation model (tabbed browsing), users are now able to work on multiple tabs in parallel. They can load any content into the tab rather than into a new window. Users can switch between the tabs easily without terminating the sessions; each new tab hosts a new session. If users are working with many applications in one window at the same time, they can get an overview of all the tabs in the tab bar by displaying the tab list or with the help of the tab previews in the task bar. The tab list displays all the tab titles if more tabs are open than can be displayed in the tab bar. Users can display the complete list of open tabs and quickly navigate to a selected tab.

It is possible to personalize a user's navigation structure by adding pages for frequently used transactions or applications to the *Favorites* or by pinning tabs so they are available when the users next logs on to a system.

Users have many different options to find and launch applications. This includes navigating from an overview page, from the quick launch, or from the navigation panel. The overview pages such as the *Index* page and the *New Tab* page serve as the central point of entry to a role-based navigation.

The powerful search and quick launch capabilities of the desktop client are combined in a single type-ahead field. Users can either start a search using a configured search provider, for example, the Desktop Search, or they can directly start transactions or Web Dynpro applications. Search results are grouped into different search categories, for example, by results in **Favorites and Recent Items**, or by results for **Desktop Search** and **Transactions and Applications**.



## Unit 2

### Exercise 3

# Log On to an SAP System Using the SAP Business Client - Optional Exercise



Simulation: Log On to an SAP System Using the SAP Business Client - Optional Exercise

For more information on *Log On to an SAP System Using the SAP Business Client - Optional Exercise*, please view the simulation in the lesson *Using the SAP Business Client – Optional* in your online course.

Use **SAP Business Client** to gain access to the SAP system and navigate in the SAP system.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Start the *SAP Business Client* from the Windows apps menu.

Log on to the system **T41** using the following data:

Field	Value
Client	<b>400</b>
User	<b>S4H00-##</b>
Password	<b>Welcome1</b>
Language	<b>English</b>

2. Locate a variety of transactions by navigating on the *Index Page*.

Navigate to *Accounting* → *Financial Accounting* → *Accounts Receivable*.

Which transaction texts are located in *Account*?

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3. You have specific transactions that you use frequently. To facilitate access, you create entries in your *Favorites* folder.

Create a favorite for the *Display Balance* transaction in account.

4. You are just beginning to use the SAP system and you want to personalize your **SAP Business Client** user interface.

The first thing you would like to do is to show system information in status bar and in tab title.

Second, you want to show the system selector on starting up the SAP Business Client.

## Unit 2 Solution 3

# Log On to an SAP System Using the SAP Business Client - Optional Exercise



Simulation: Log On to an SAP System Using the SAP Business Client - Optional Exercise

For more information on *Log On to an SAP System Using the SAP Business Client - Optional Exercise*, please view the simulation in the lesson *Using the SAP Business Client – Optional* in your online course.

Use **SAP Business Client** to gain access to the SAP system and navigate in the SAP system.



Note:

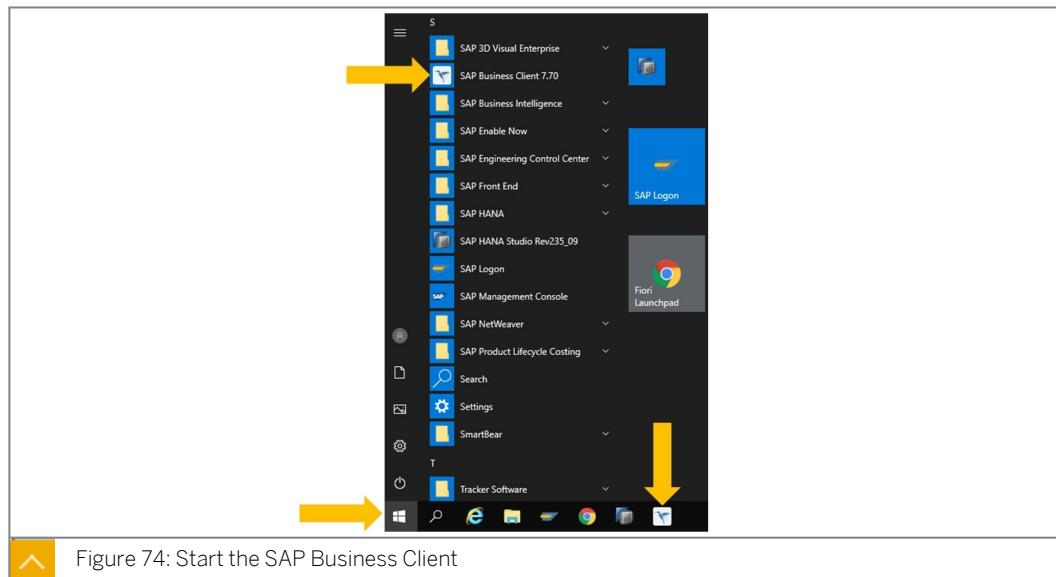
In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Start the *SAP Business Client* from the Windows apps menu.

Log on to the system **T41** using the following data:

Field	Value
Client	<b>400</b>
User	<b>S4H00-##</b>
Password	<b>Welcome1</b>
Language	<b>English</b>

- a) Choose Windows icon  and choose  **SAP Business Client 7.70** to start the SAP Business Client.



- b) Choose System Connection (*SAP Business Client*) **T41**.
- c) Choose Log On.
- d) Enter the data as provided in the table below.

Field	Value
Client	<b>400</b>
User	<b>S4H00-##</b>
Password	<b>Welcome1</b>
Language	<b>English</b>

- e) Choose Log On.

2. Locate a variety of transactions by navigating on the *Index Page*.

Navigate to *Accounting* → *Financial Accounting* → *Accounts Receivable*.

Which transaction texts are located in Account?

---



---

- a) If necessary, choose  and select Open Index Page.



- b) Choose  *Accounting*.
- c) Choose *Financial Accounting*.
- d) If the *Company Code* dialog box appears, enter the company code **1010**.

e) Choose *Accounts Receivable*.

f) Choose *Account*.

The following transaction texts are located in *Account*:

- *Display Balance*
- *Display/Change Line Items*

3. You have specific transactions that you use frequently. To facilitate access, you create entries in your *Favorites* folder.

Create a favorite for the *Display Balance* transaction in account.

a) On the left side on top of the screen, choose the  icon.



b) Choose  *Accounting*.

c) Choose *Financial Accounting*.

d) Choose *Accounts Receivable*.

e) Choose *Account*.

f) Choose *Display Balance*.

g) On the left side on top of the screen, choose  (*Add to Favorites*).

h) Choose *OK*.



i) Choose the  (*Index*) tab.

4. You are just beginning to use the SAP system and you want to personalize your **SAP Business Client** user interface.

The first thing you would like to do is to show system information in status bar and in tab title.

Second, you want to show the system selector on starting up the SAP Business Client.

a) On the right side, at the top of the screen, choose the  icon.

b) Choose *Settings* → *Appearance*.

c) Choose the *Interaction Design* tab:

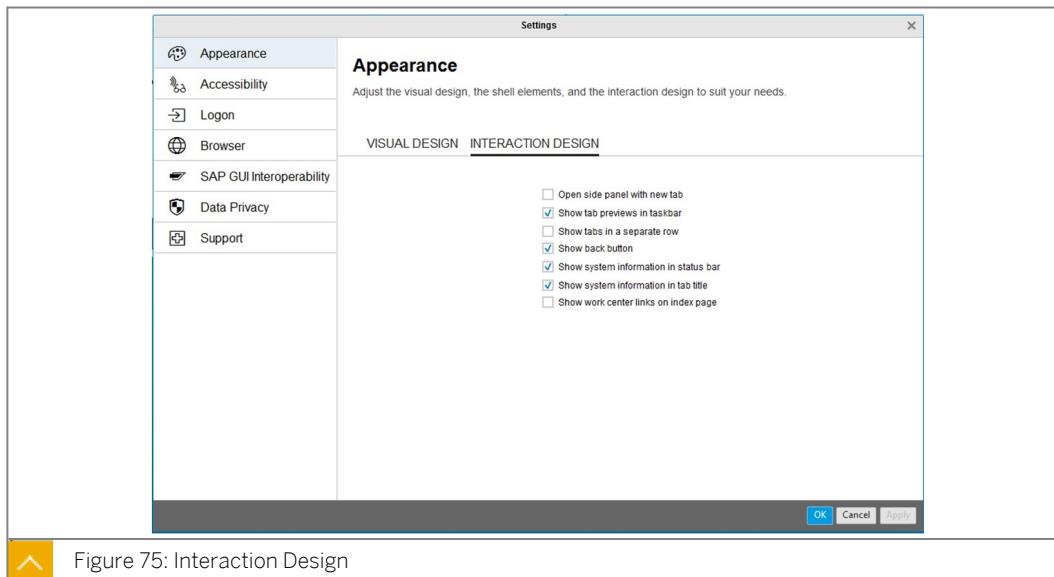


Figure 75: Interaction Design

- Show system information in status bar.
- Show system information in tab title.

d) Choose Logon:

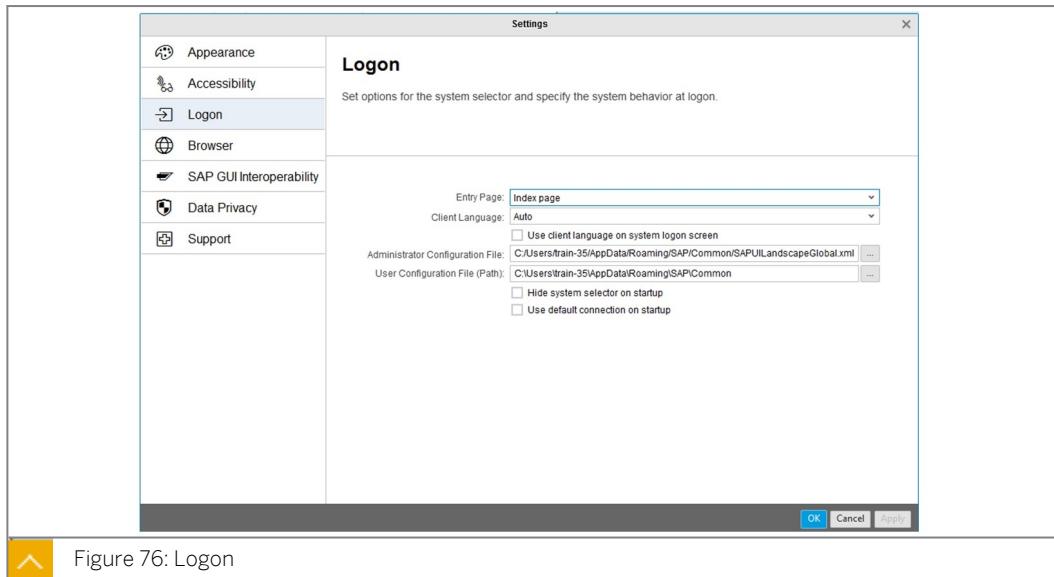


Figure 76: Logon

- Hide system selector on startup.

e) Choose OK.



## LESSON SUMMARY

You should now be able to:

- Use the SAP Business Client

## Unit 2

### Lesson 3

# Using SAP Logon (GUI)



## LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Use SAP Logon (GUI)

## SAP Logon (GUI)

### SAP System Logon

The SAP Graphical User Interface (SAP GUI) is the front-end program used to access SAP systems. Several variants of the SAP GUI are available and are adapted for use in different environments. In this lesson, we refer to the SAP GUI for the Windows environment.

The SAP GUI program connects the front-end computer with a specific SAP system. To start the SAP GUI, SAP provides another program: **SAP Logon**. When the user launches SAP Logon, a screen displays a list of available SAP systems. This list is derived from a file on the front-end computer, and is preconfigured and made available to users.

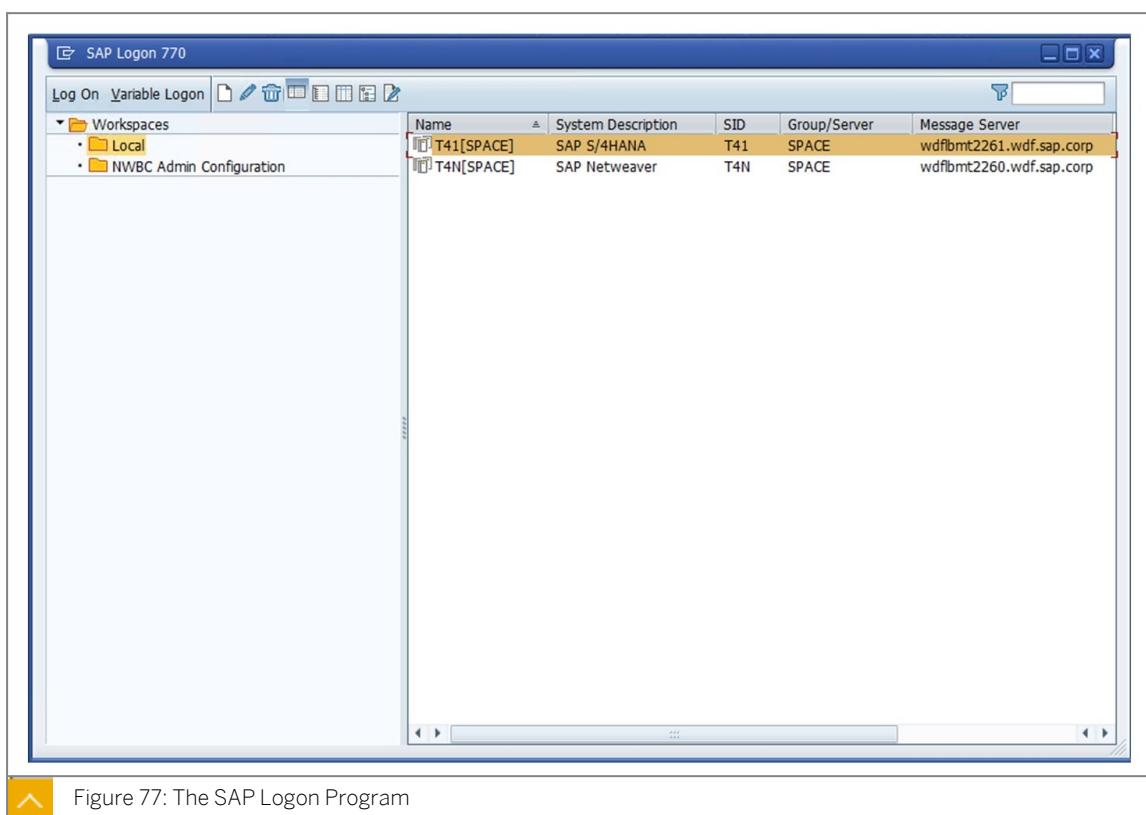


Figure 77: The SAP Logon Program

Before you log on for the first time, your system administrator will give you an initial password. During the process of logging on, you enter a new password of your own choice. You will use your own password whenever you log on.



Note:

These procedures may differ in your company. For more information, contact your system administrator.

### The Logon Screen



Figure 78: Logging On to an SAP System

If there are system-wide messages, the *System Messages* dialog box appears. After you have read the messages, choose *Continue* (or *Enter*) to close the dialog box.

#### Screen Structure Elements

The SAP Easy Access screen is the initial default screen in SAP systems.

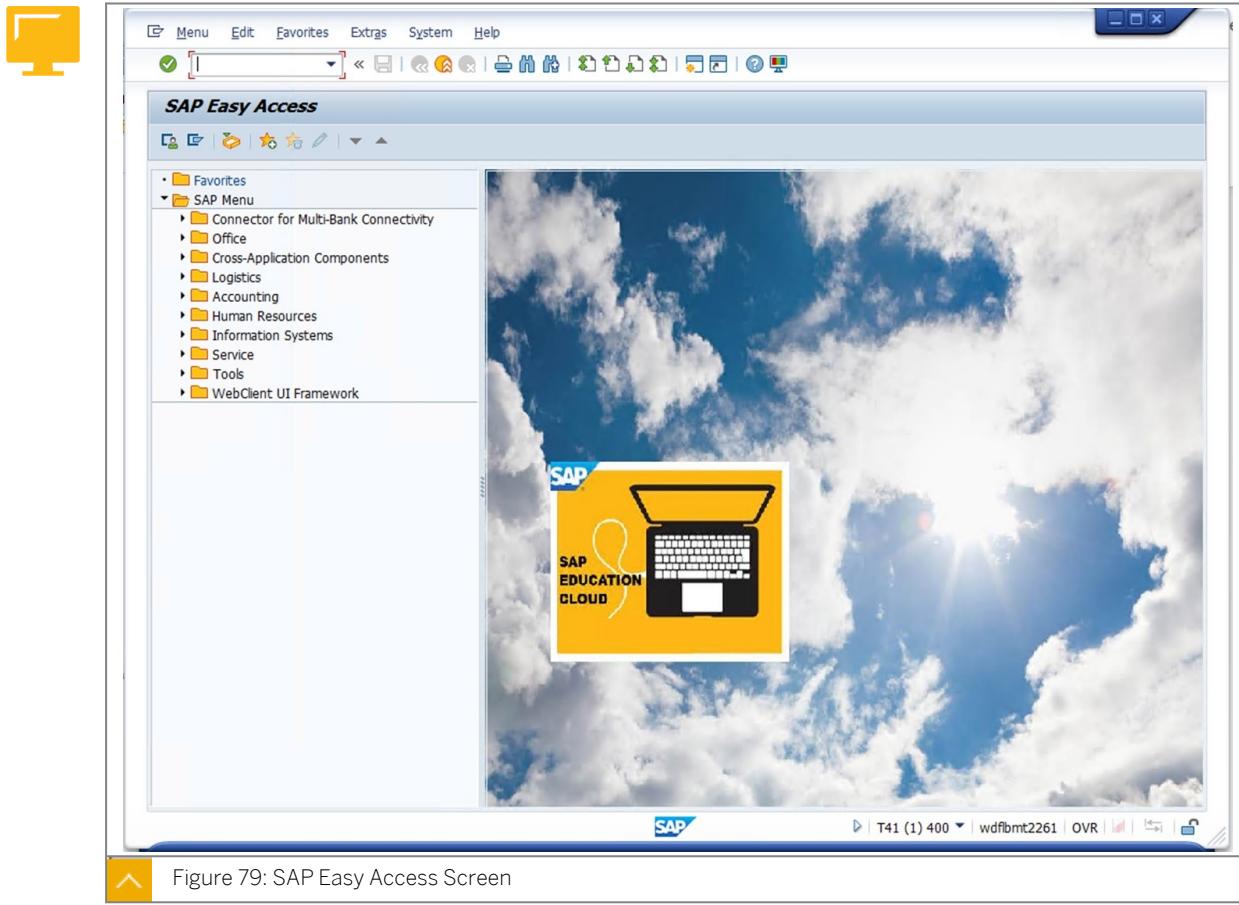


Figure 79: SAP Easy Access Screen

The left side of the screen contains a tree hierarchy of the available menus. The graphic on the right side is made available centrally by your system administrator and cannot be customized by individual users. The graphic could be the company logo, for example.



#### Animation: SAP Easy Access Screen

For more information on *SAP Easy Access Screen*, please view the animation in the lesson *Using SAP Logon (GUI)* in your online course.

## SAP Screen Structure

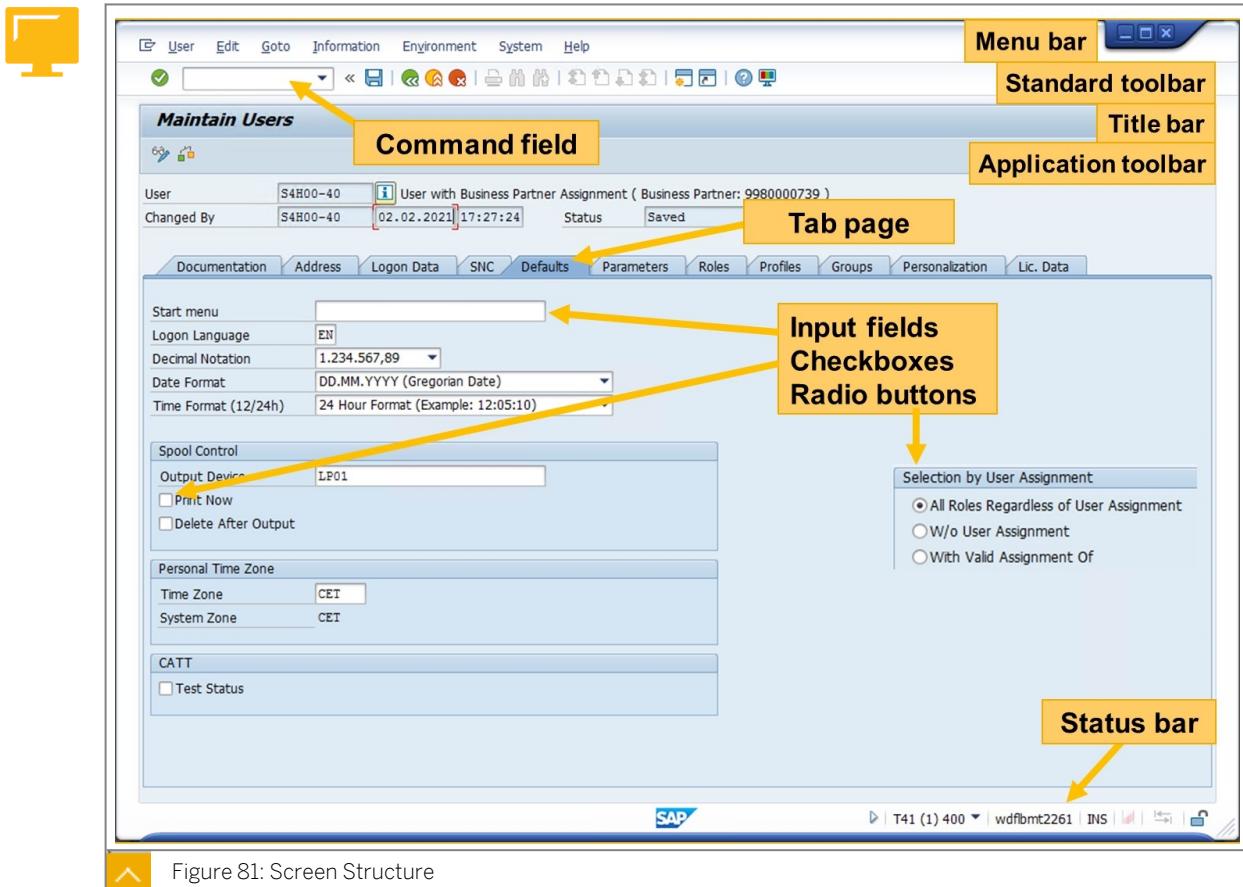


Figure 81: Screen Structure



### Animation: Screen Structure

For more information on *Screen Structure*, please view the animation in the lesson *Using SAP Logon (GUI)* in your online course.

An SAP screen can contain the following screen elements:

- **Command field**: You can start applications directly by entering the transaction code in the command field. You can find the transaction code for an application in the status bar, or in the application itself under System → Status.
- **Menu bar**: The menu bar is the top line of any primary window in the SAP system. The menu displayed depends on the application you are using.
- **Standard toolbar**: The buttons in the standard toolbar are shown on every SAP screen. If certain buttons are not available in an application, they are deactivated (grayed out). If you move the cursor over a button, the system displays a tooltip with the name or function of that button.
- **Title bar**: The title bar displays the name of the function that you are currently using.
- **Application toolbar**: The application toolbar shows the buttons available in the application you are currently using.

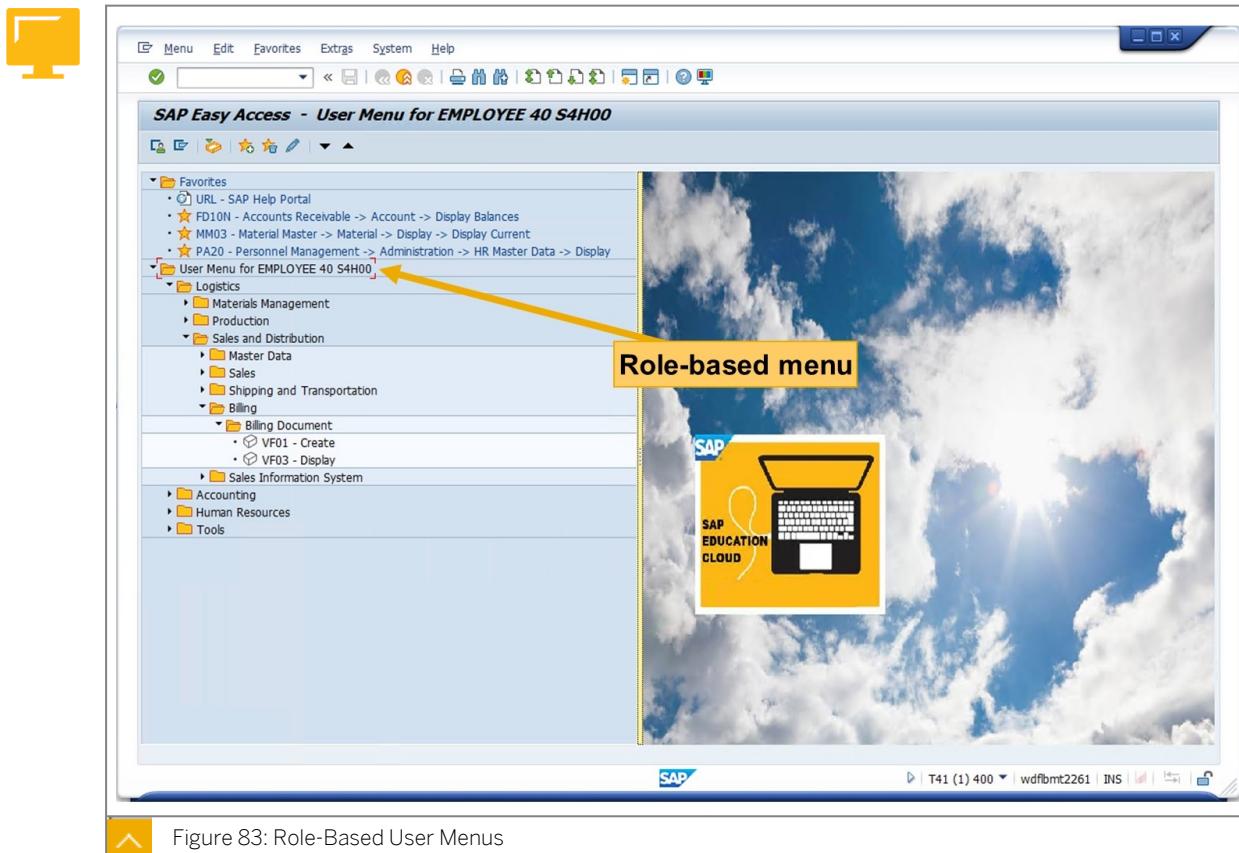
- **Check boxes:** Check boxes allow you to select several options from a group of fields.
- **Radio buttons:** Only one radio button option may be selected.
- **Tab:** A tab page allows you to organize several screen areas to improve clarity and organize data.
- **Status bar:** The status bar displays information on the current system status, such as, warnings and errors. You can also change the display variant to show, for example, the transaction code of the transaction you are currently using.
- **Other elements:** Other elements include input fields and buttons.

### Role-Based User Menus

SAP offers two formats to display a menu of transactions, reports, or Web-based applications to the user.

Menu formats include the following:

- **SAP standard menu:** This is a complete list of all possible transactions and reports offered by the system.
- **Role-based user menu:** This is a collection of activities used in business scenarios. Users can access transactions, reports, or Web-based applications through their role-based menus.



Users are assigned the role menu and the authorizations associated with the role. Authorizations control access to the specific activities required to perform the job function. The system administrator can tailor role-based menus to specific job requirements by adding or removing menu entries.

## Favorites

Examples of items that can be added to a favorites list include the following:

- Transactions
- Links to files
- Internet addresses



Note:

Favorites can be organized into folders, and you can edit your favorites in the SAP Easy Access screen using the *Favorites* menu.

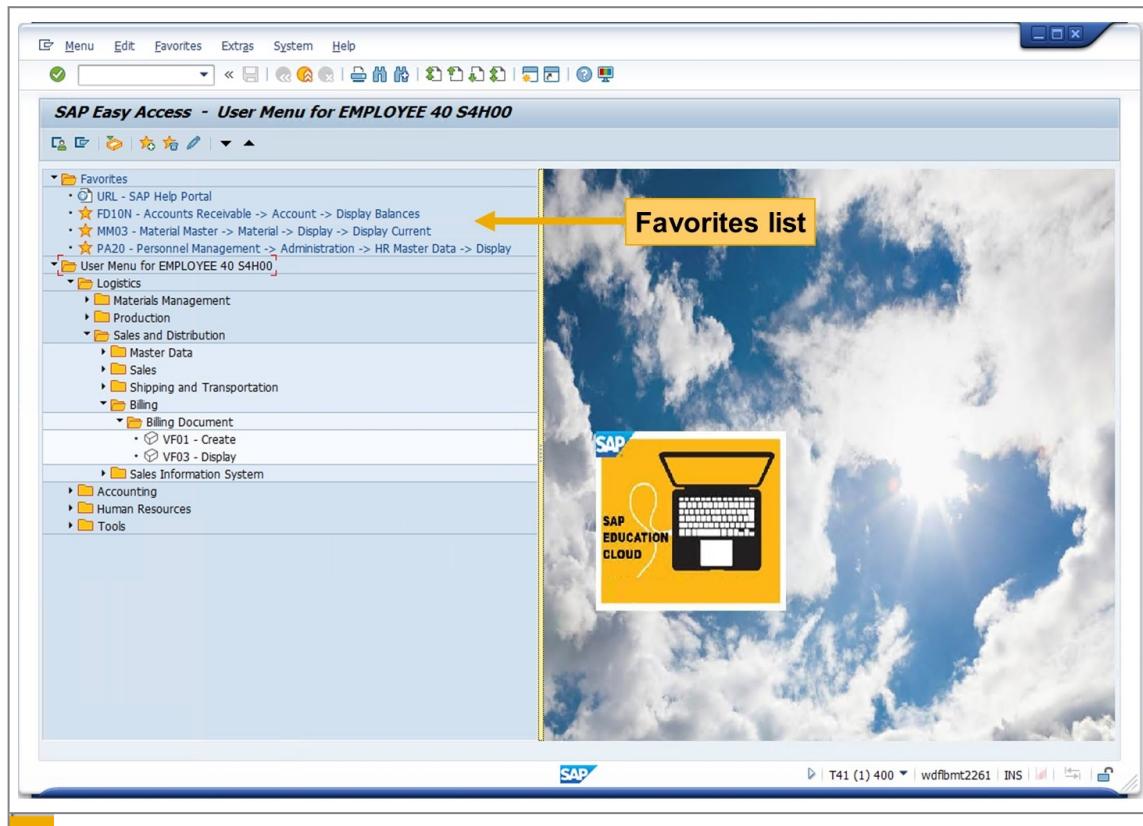


Figure 84: Favorites Menu

The favorites list, which is initially empty, can be edited according to your preferences. Only you can view your favorites list.

## User Interface

You have several personalization options available to help you set up your working environment.

The following is a list of personalization options:



- Change the layout of the SAP Easy Access screen.
- Track your input history to provide input help.

- Display status messages in a dialog box instead of on the status bar.
- Set preferences to determine how data is displayed.
- Adjust the color and behavior of the screens and fields.

## Status Bar

The status bar provides general information on the SAP system and the transaction or task on which you are working. System messages are displayed on the left side of the status bar, and system information is displayed on the right side.

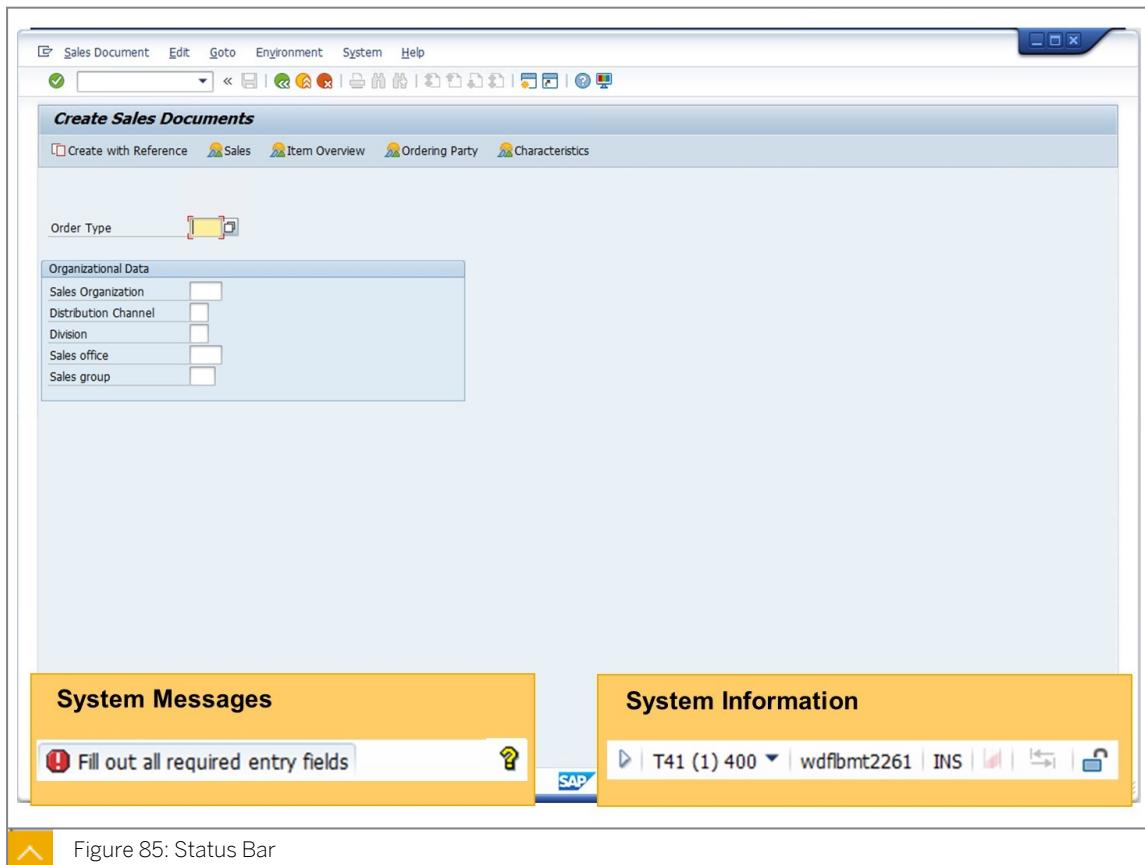


Figure 85: Status Bar



### Animation: Status Bar

For more information on *Status Bar*, please view the animation in the lesson *Using SAP Logon (GUI)* in your online course.

The following information can be displayed in the status bar:

- System
- Client
- User
- Program
- Transaction

- Response time

To hide the information status fields, choose the arrow to the left of the fields.

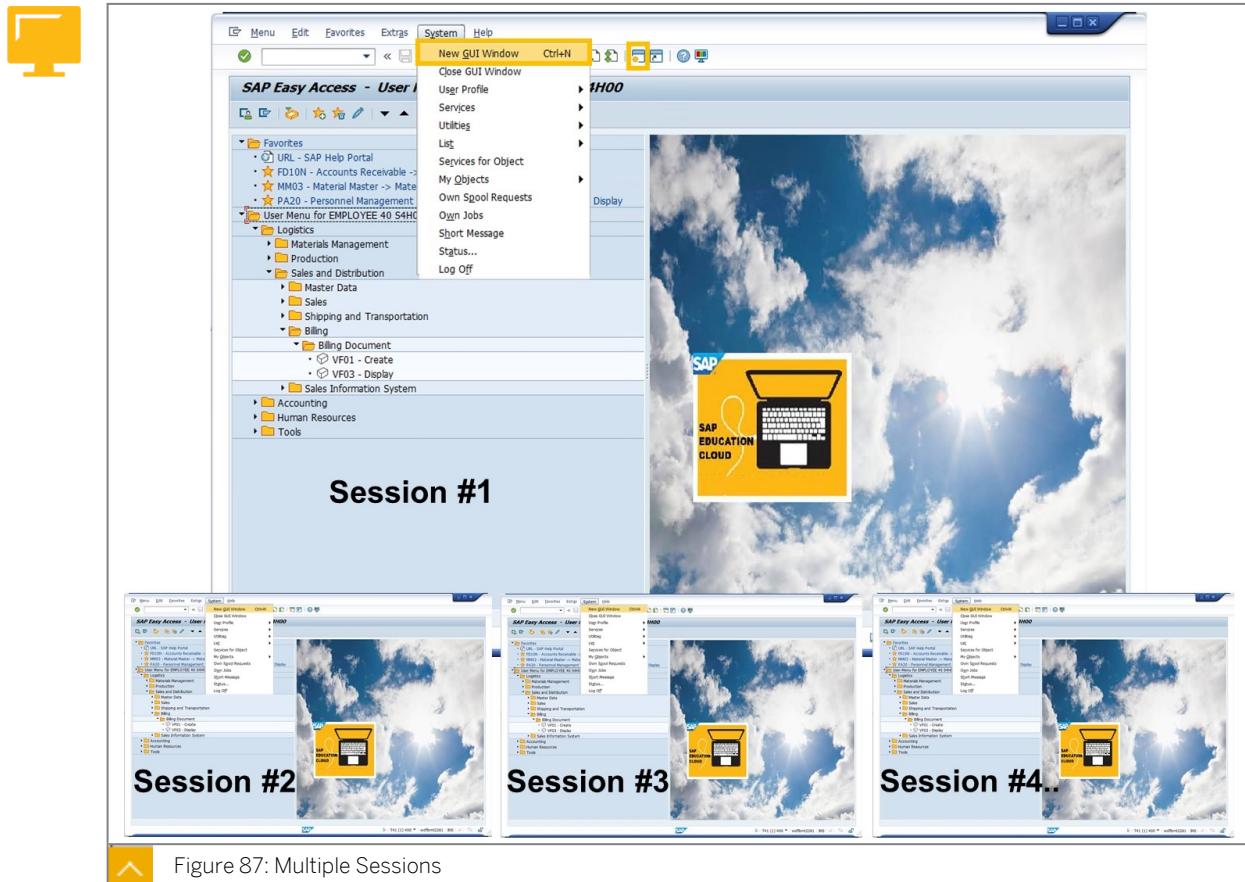
### Multiple Sessions

The SAP system tracks multiple logons. The primary reasons for tracking multiple logons are security and licensing. If the same user logs on more than once, the system displays a warning message for each subsequent logon.

Warning messages include the following options:

- Continue with this logon and end any other logons of this user in the system.
- Continue with this logon without ending any other logons in the system (this is tracked).
- Terminate this logon.

You should only be logged on once per SAP system. Using multiple sessions allows you to open several windows at the same time on the same computer.



The user can create a new session at any time. This is helpful if you are in the middle of a transaction and need to verify information to complete the transaction. You can create several sessions, each independent of the others. You will not lose any data in sessions that are already open. For example, closing the first session does not cause the other sessions to close.

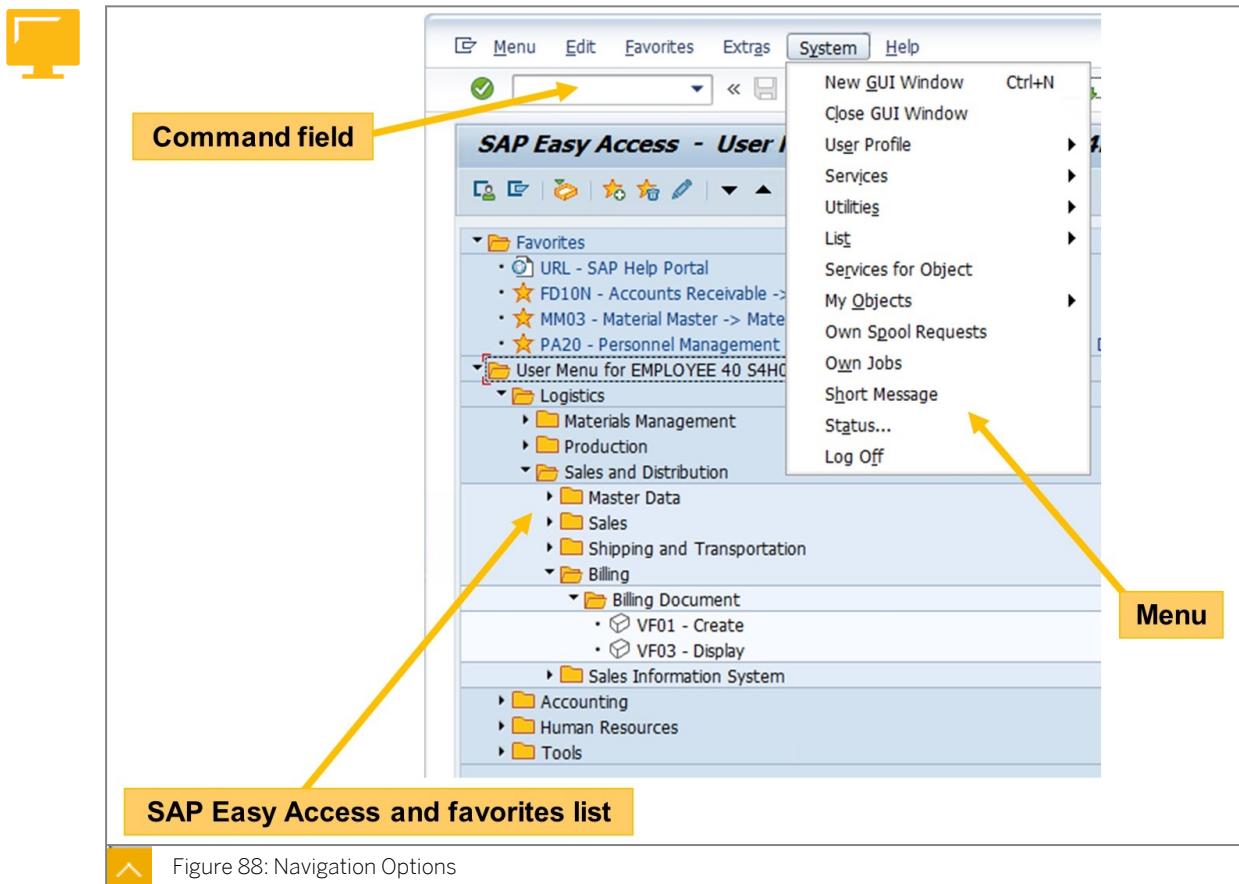
Too many open sessions can result in slower system performance. Your system administrator may limit the number of sessions that users can create.

Before you end a session, save any data that you want to keep.

## Navigation

The following options are available when navigating in the SAP system:

- Entering transaction codes in the Command field.
- Choosing items from menus in the menu.
- Choosing items from the favorites list.
- Choosing from the role-based user menu.



Menus allow you to find a specific transaction when you do not know the transaction code. The menu is organized according to the task you are performing in the SAP system. Menus are drop-down lists; therefore, when you choose a menu item, further options appear.



Animation: Navigation Options

For more information on *Navigation Options*, please view the animation in the lesson *Using SAP Logon (GUI)* in your online course.

## Transaction Codes

Every transaction or function in the system has a transaction code. You can enter the transaction code in the Command field to initiate the transaction or function. This is convenient, provided that you know the transaction code for the required transaction or function. You can find the transaction code by first navigating to a transaction, and then choosing System → Status.

## Help Features

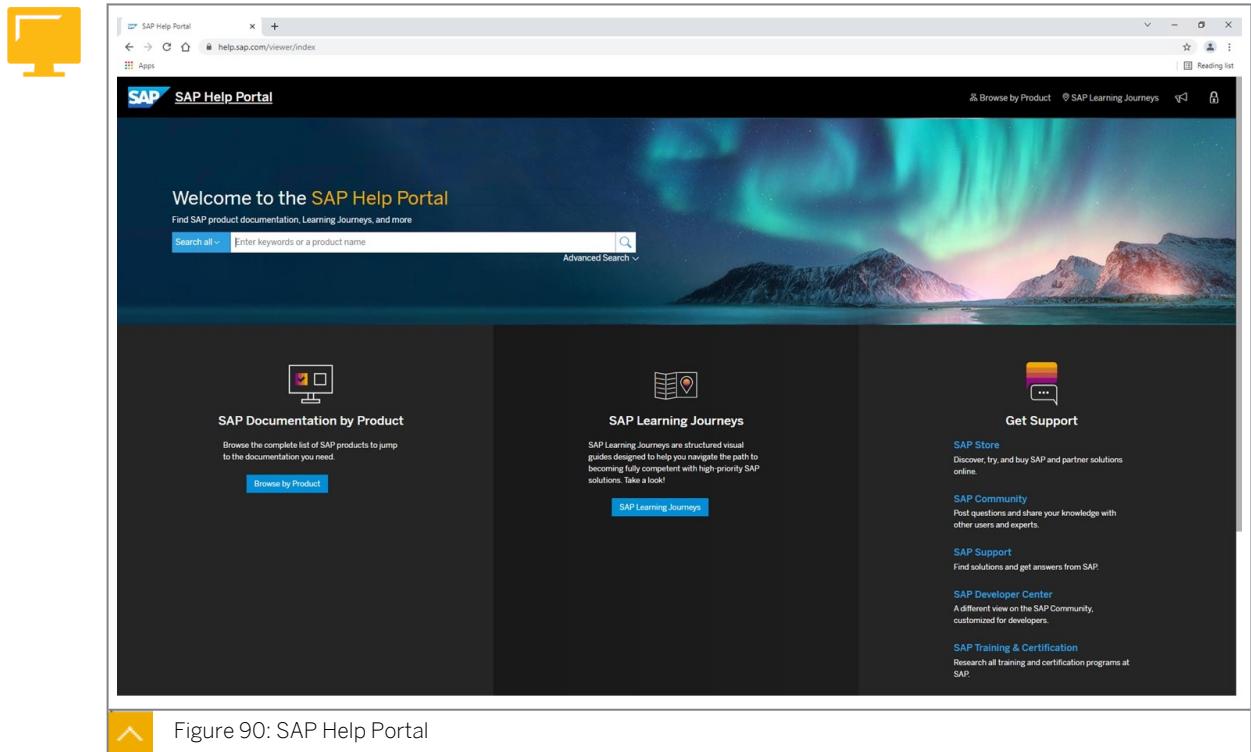


Figure 90: SAP Help Portal

### F1 Field Help:

**F1** is used to find help on fields, menus, functions, and messages. F1 help also provides technical information on the relevant field (for example, the parameter ID and the technical name of the field).

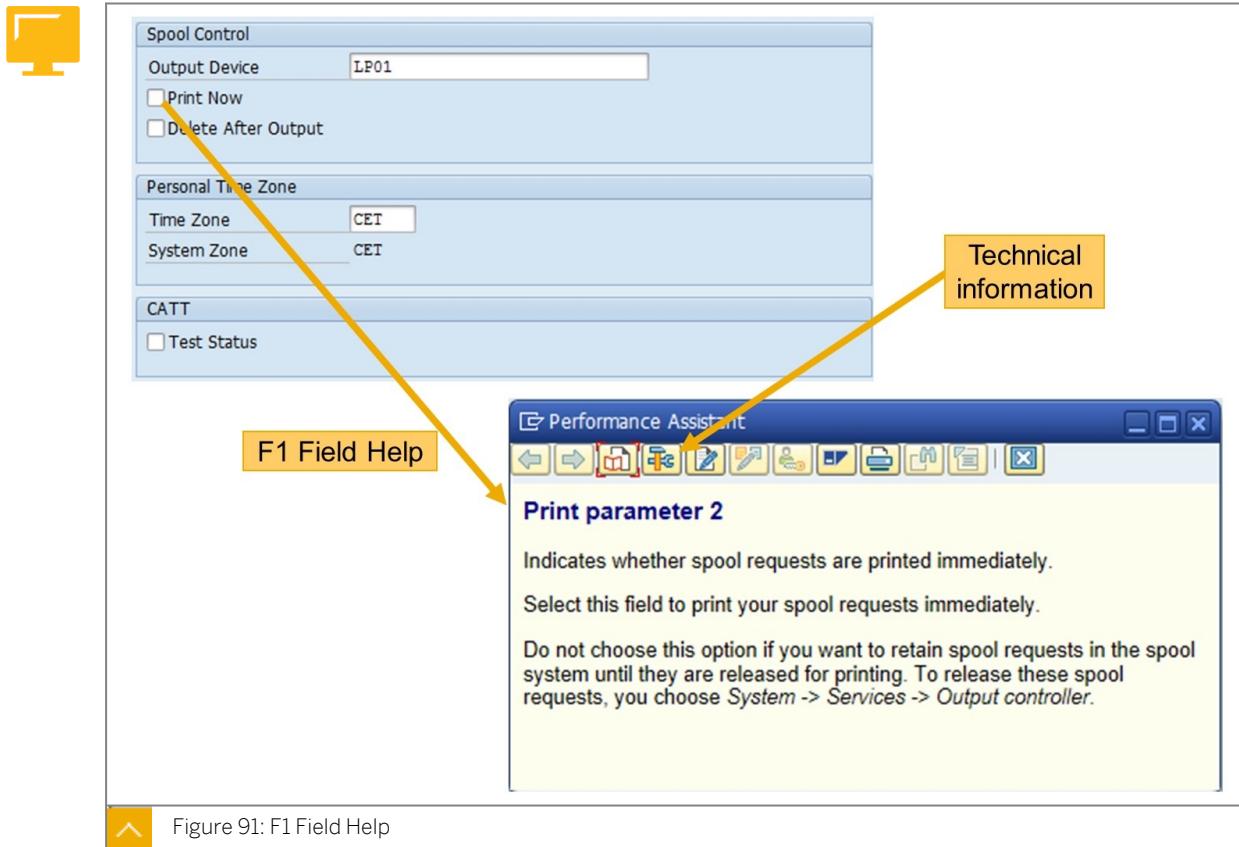


Figure 91: F1 Field Help



#### Animation: F1 Field Help

For more information on *F1 Field Help*, please view the animation in the lesson *Using SAP Logon (GUI)* in your online course.

#### F4 Field Help:

**F4** is used to find information on the possible values that can be entered in the field. You can access F4 help for a selected field by choosing the button immediately to the right of that field, or by selecting the F4 key.

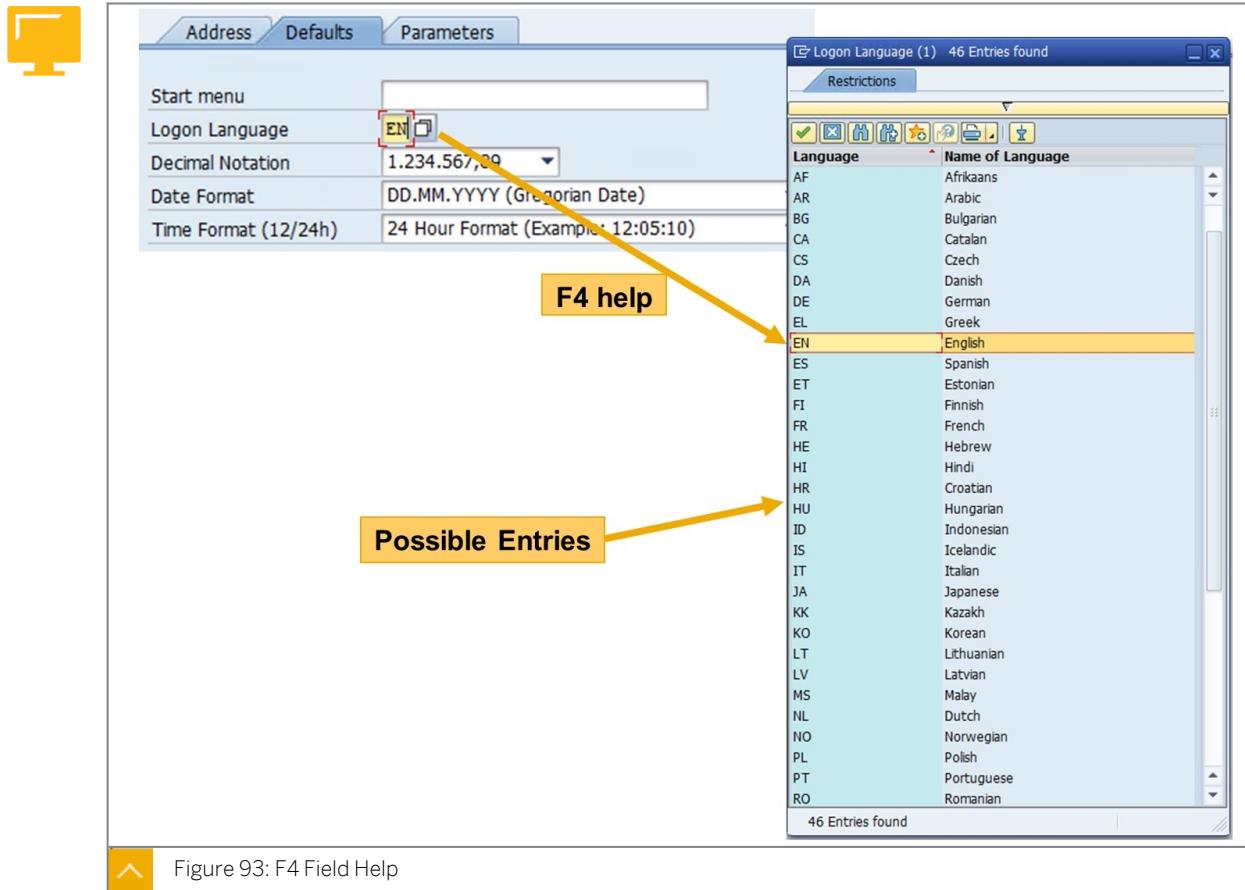


Figure 93: F4 Field Help

**Animation: F4 Field Help**

For more information on *F4 Field Help*, please view the animation in the lesson *Using SAP Logon (GUI)* in your online course.

**SAP Fiori Theme for SAP GUI**

To adapt the look and feel of existing applications as quickly as possible to the SAP Fiori Design and Usability paradigms, without having to technically change over to the SAP Fiori framework, SAP Fiori themes are provided. Applications based on classical dynpros that are displayed in SAP GUI for Windows, can be adapted to SAP Fiori design and usability paradigms by using *Quartz Theme* or *Belize Theme* for SAP GUI.

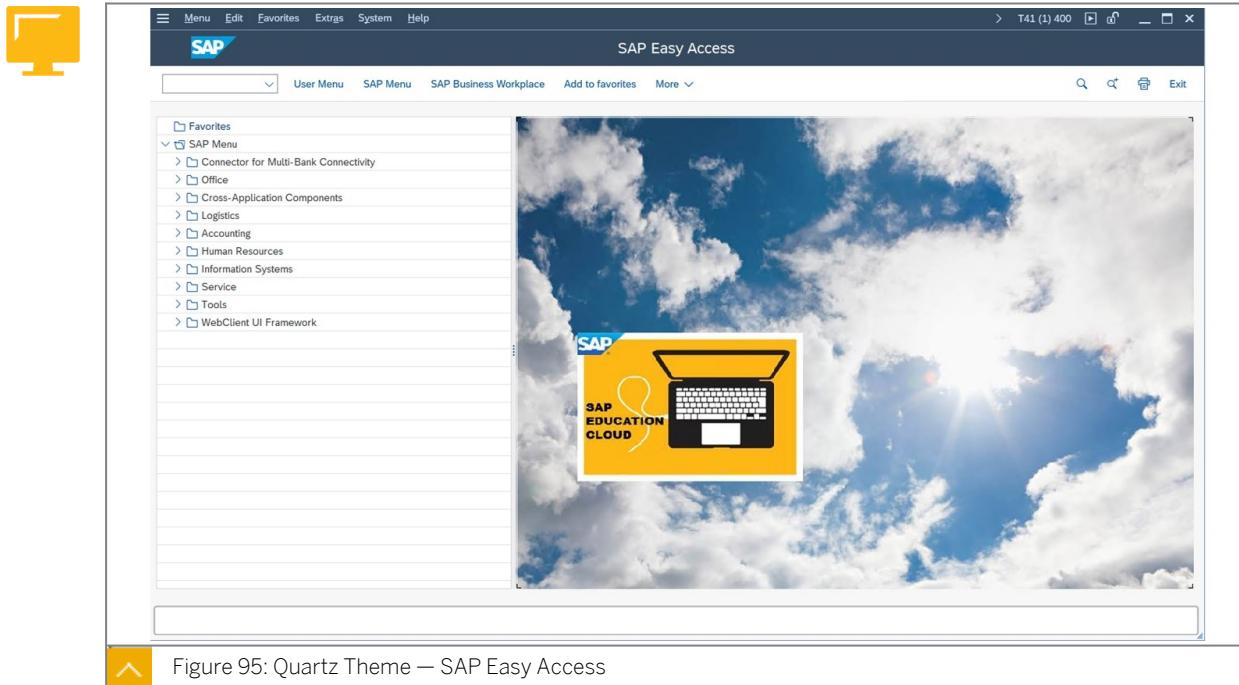


Figure 95: Quartz Theme — SAP Easy Access

In order to adhere to the SAP Fiori design guidelines, the *Quartz Theme* needs to behave differently in some aspects compared to all previously offered themes of SAP GUI for Windows.

To obtain a better overview of the various functions on a screen, a complete new structure of functional display was created with the SAP Fiori design. Commonly known dynpro bars, such as *menu bar*, *function key bar*, *title bar*, *application toolbar*, and *status bar* have been removed and the functions within them redistributed. The SAP Fiori design only provides a **header bar** and a **footer bar**. Many less important functions are grouped in a menu item.

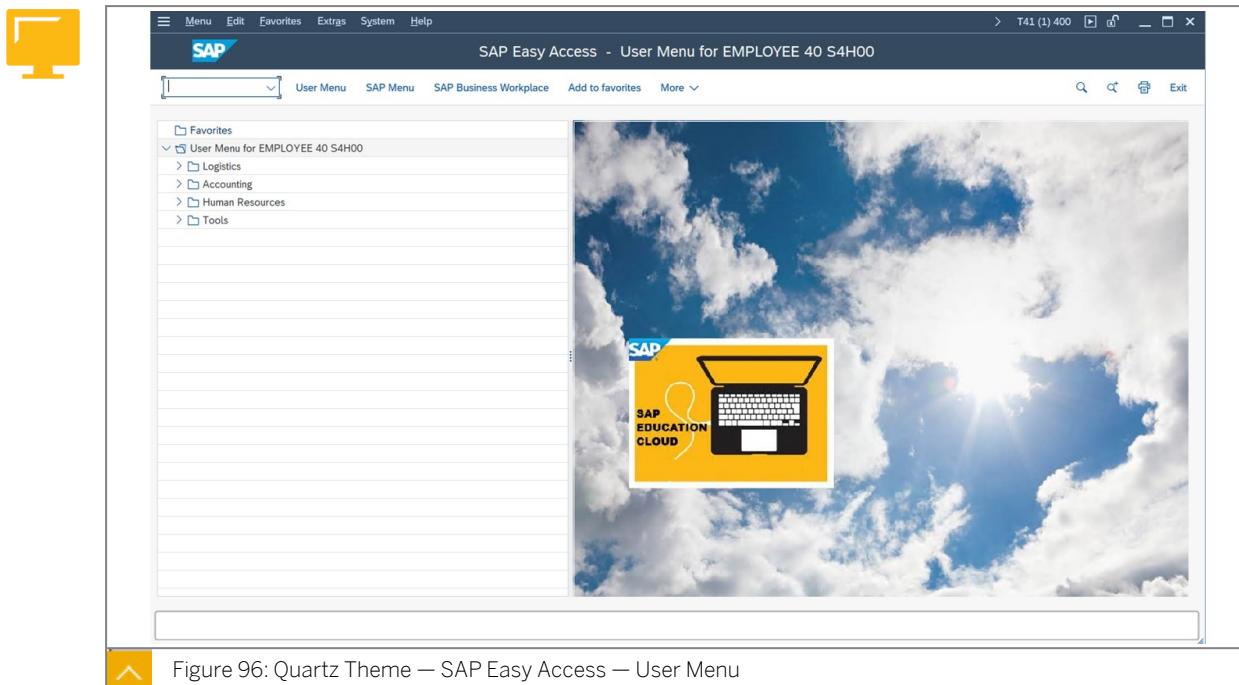


Figure 96: Quartz Theme — SAP Easy Access — User Menu

Another important change is that only a few if any icons are used in the header and footer bars of the *Quartz Theme*. Instead, only texts are used. Inactive buttons are not displayed.

## Unit 2

### Exercise 4

# Navigate in SAP S/4HANA



Simulation: Navigate in SAP S/4HANA

For more information on *Navigate in SAP S/4HANA*, please view the simulation in the lesson *Using SAP Logon (GUI)* in your online course.

Use **SAP Logon** to gain access to the SAP system and navigate in the SAP system.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you

1. Start the SAP Logon from the Windows apps menu.

Log on to the system **T41** using the following data:

Field	Value
Client	<b>400</b>
User	<b>S4H00-##</b>
Password	<b>Welcome1</b>
Language	<b>EN</b>

2. Locate a variety of transactions by navigating the *SAP Easy Access – User Menu for Employee ## S4H00* or by choosing the *SAP Easy Access* menu and then choosing *Accounting → Financial Accounting → Accounts Receivable → Account*.

Which transaction texts are located in the *Account* folder?

Record your results in the following table.

Field	Value
•	
•	

3. You have specific transactions that you use frequently. To facilitate access, you create entries in your *Favorites* folder.

Create a favorite for the *Display Balance* transaction in *Accounts Receivable → Account*.

4. You are just beginning to use the SAP system and you want to personalize your user interface in **SAP Logon**.

The first thing that you would like to do is to have the success, warning, and error messages appear in a dialog box.

Second, confirm that the date format and decimal format display according to your preference.

## Unit 2 Solution 4

### Navigate in SAP S/4HANA



Simulation: Navigate in SAP S/4HANA

For more information on *Navigate in SAP S/4HANA*, please view the simulation in the lesson *Using SAP Logon (GUI)* in your online course.

Use **SAP Logon** to gain access to the SAP system and navigate in the SAP system.



Note:

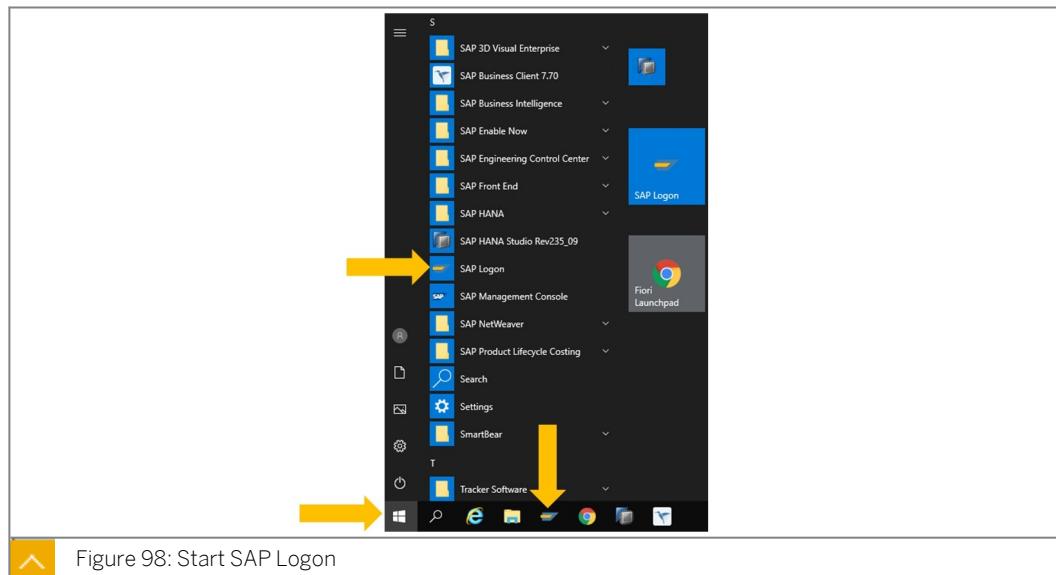
In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you

1. Start the SAP Logon from the Windows apps menu.

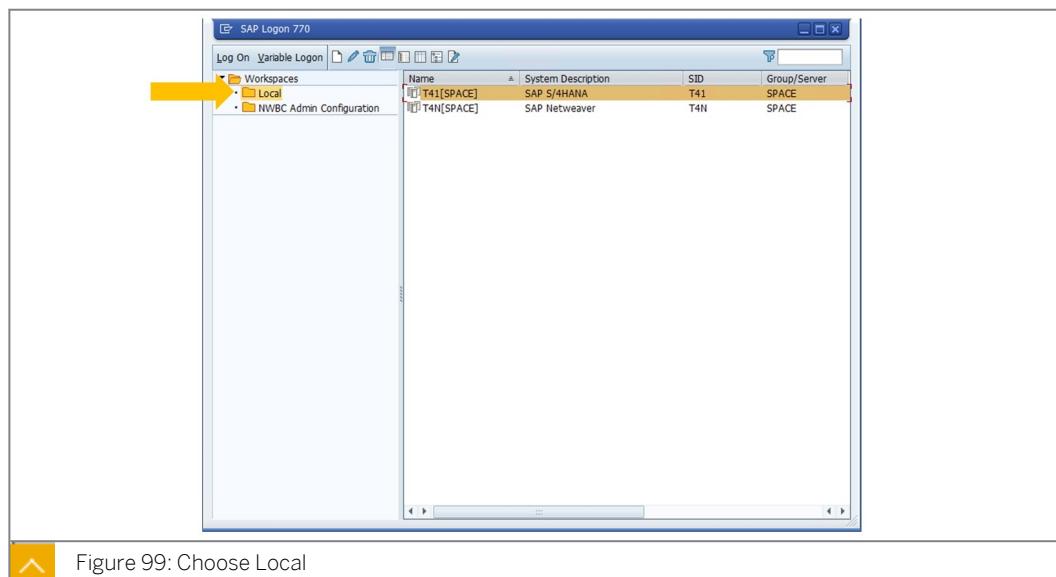
Log on to the system **T41** using the following data:

Field	Value
Client	<b>400</b>
User	<b>S4H00-##</b>
Password	<b>Welcome1</b>
Language	<b>EN</b>

- a) Choose Windows icon  and choose  to start SAP Logon.



b) If necessary, choose Local



c) Choose the system *T41 [SPACE]* and choose *Enter*.

d) Enter the data provided in the table below:

Field	Value
Client	400
User	S4H00-##
Password	Welcome1
Language	EN

e) Choose *Enter*.

f) If necessary, read the messages that are displayed and choose *Continue*.

2. Locate a variety of transactions by navigating the SAP Easy Access – User Menu for Employee ## S4H00 or by choosing the SAP Easy Access menu and then choosing Accounting → Financial Accounting → Accounts Receivable → Account.

Which transaction texts are located in the Account folder?

Record your results in the following table.

Field	Value
•	
•	

- a) Choose the triangle to the left of Accounting.
- b) Choose the triangle to the left of Financial Accounting.
- c) Choose the triangle to the left of Accounts Receivable.
- d) Choose the triangle to the left of Account.

Field	Value
•	Display Balance
•	Display/Change Line Items

3. You have specific transactions that you use frequently. To facilitate access, you create entries in your Favorites folder.

Create a favorite for the Display Balance transaction in Accounts Receivable → Account.

- a) Choose Accounting → Financial Accounting → Accounts Receivable → Account .
- b) Choose Display Balances.
- c) Choose (Add to Favorites) on the application toolbar.

4. You are just beginning to use the SAP system and you want to personalize your user interface in **SAP Logon**.

The first thing that you would like to do is to have the success, warning, and error messages appear in a dialog box.

Second, confirm that the date format and decimal format display according to your preference.

- a) Choose (Customize Local Layout) [or (Customize Local Layout)].

This icon appears in the system tool bar at the top of the screen.

- b) Choose Options....
- c) Choose Interaction Design.

- d) Choose *Notifications*.
- e) In the *Messages* area of the screen, select the following checkboxes:
  - Show success messages in a dialog box.
  - Show warning messages in a dialog box.
  - Show error messages in a dialog box.
- f) Choose *Apply*.
- g) Choose *OK*.
- h) From the *SAP Easy Access – User Menu for Employee ## S4H00* or *SAP Easy Access* screen, on the main menu bar, choose *System* → *User Profile* → *User data*.
- i) Choose the *Defaults* tab.
- j) Change the *Decimal Notation* and *Date Format* to the format of your choice.
- k) Choose  (Save).
- l) Choose *OK*.



## LESSON SUMMARY

You should now be able to:

- Use SAP Logon (GUI)



# Learning Assessment

1. Identify some of the benefits of SAP Fiori.

*Choose the correct answers.*

- A Increases productivity
- B Allows users to take quick and informed actions
- C Focuses on business function
- D Increases user satisfaction

2. The user can customize the appearance of the shell and content area in SAP Business Client 7.70 by switching the theme in the personal settings.

*Determine whether this statement is true or false.*

- True
- False

3. Which of the following provides general information on the SAP system and transaction or task on which you are working?

*Choose the correct answer.*

- A Status bar
- B Menu path
- C Role bar
- D Application toolbar

4. In the SAP Easy Access menu, you can create a favorites list containing:

*Choose the correct answers.*

- A Web addresses
- B Transactions
- C Links to files

5. You would like to preset a value for a field that you have to enter frequently. To do this, you need the parameter ID. Which help function would you use to locate the parameter ID when you are on the field?

*Choose the correct answer.*

- A F1
- B F4
- C System help
- D F11
- E Application help

**Lesson 1**

Describing Organizational Units

97

**Lesson 2**

Describing Master Data Concepts

99

Exercise 5: Display a Business Partner

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Exercise 6: Display a Product/Material Master Record

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**UNIT OBJECTIVES**

- Describe organizational units in SAP S/4HANA
- Describe the master data concepts of SAP S/4HANA



## Describing Organizational Units



### LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe organizational units in SAP S/4HANA

### Organizational Units

One of the first steps in implementing SAP applications is to define the specific organizational structures of your company in the SAP system. Organizational units are provided for accounting, logistics, and human capital management functions. The first step is to analyze the structures and procedures in your company, and then assign them to the SAP structures.



Animation: Enterprise Structure: Terminology

For more information on *Enterprise Structure: Terminology*, please view the animation in the lesson *Describing Organizational Units* in your online course.

Organizational units include the following:

#### Client

The client is the highest-level element of all organizational units. It represents the enterprise or headquarters group.

#### Company code

The company code is a legal, independent accounting unit representing the central organizational unit of financial accounting. The company code represents the tax law (national) view of the company, the fiscal calendar, the local currency, and the tax reporting requirements.

#### Plant

The plant is the central organizational unit of production. A plant can manufacture product, distribute product, or provide a service.

#### Storage location

The storage location differentiates material stock within one plant according to the storage location.

#### Sales organization

The sales organization is the central organizational unit in sales order management. It controls the terms of sale to the customer.

#### Distribution channel

Distribution channels are used to define how different products reach consumers (for example, wholesale).

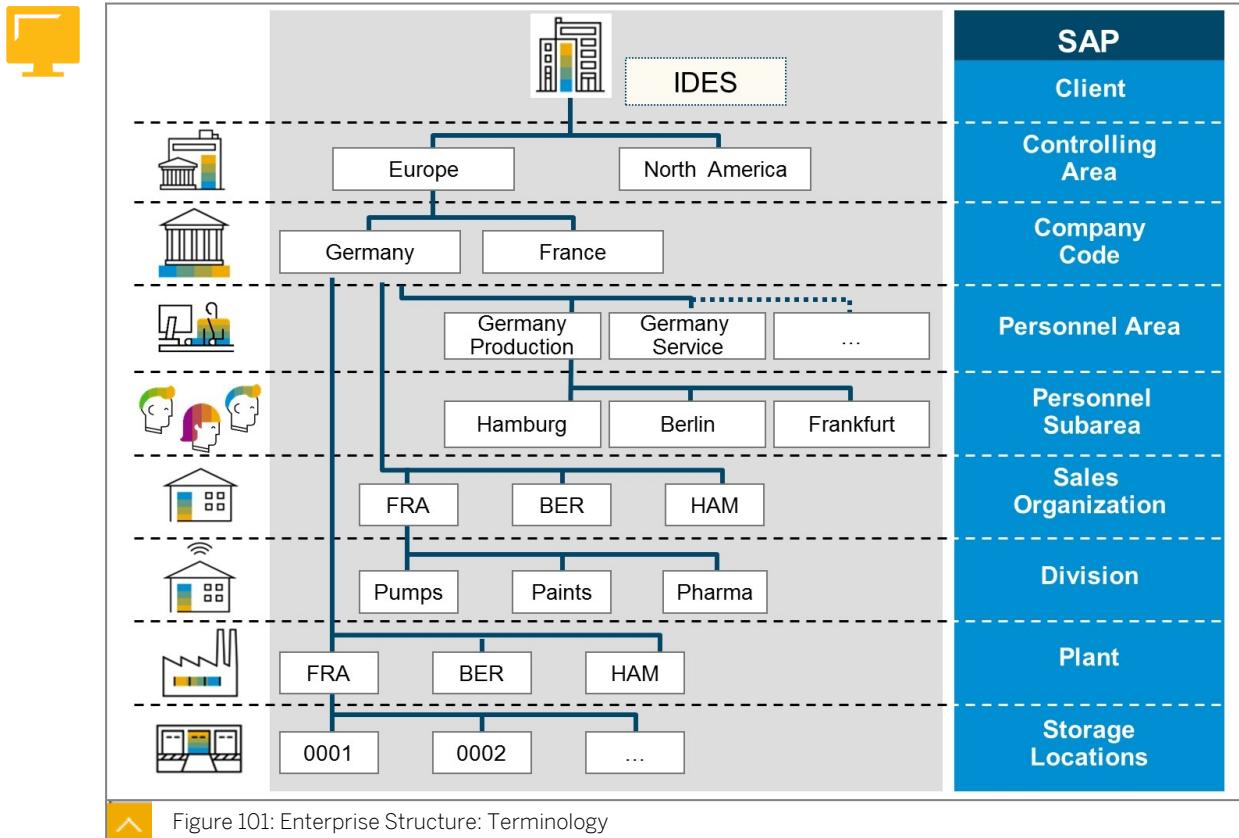
#### Personnel area

The personnel area is an organizational unit that represents a specific area of the enterprise and is organized according to aspects of personnel.

### Personnel subarea

A personnel subarea is an organizational unit that represents a specific area of the company organized according to certain aspects of personnel.

The Internet Demonstration and Evaluation System (IDES) is a demo system developed and used by SAP. IDES is an international company that is dependent upon collaborations with external business partners. IDES operates worldwide and has a number of subsidiaries.



### LESSON SUMMARY

You should now be able to:

- Describe organizational units in SAP S/4HANA

## Describing Master Data Concepts



### LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe the master data concepts of SAP S/4HANA

### Master Data Concepts

#### Business Partner (BP) Approach

In SAP, master data is created centrally and is available to all applications and all authorized users. Storing master data centrally means data records are always consistent, up to date, and free of redundancy. Master data is organized into views that are assigned to organizational units (for example, plant, organizational unit, and so on). The segmented structure of master records makes it possible to flexibly depict the various organizational structures of an operation.

When the corresponding data (such as, information on business partner or materials) is integrated in one single database object, data redundancy is no longer an issue and data integrity is enhanced. All areas use the same stored data, including sales, purchasing, inventory management, materials planning, invoice verification, finance, and human resources.

In SAP ERP, customer master data and vendor master data must be maintained separately. This means that if a certain Business Partner (BP) acts as a customer in some processes and as a vendor in other processes, master data for this business partner has to be maintained twice. The (mandatory) target approach in SAP S/4HANA is the Business Partner approach. By using this approach, it is possible to centrally manage master data for customers and vendors.

In SAP S/4HANA, business partner master data can be maintained with the SAP Fiori app `MANAGE BUSINESS PARTNER MASTER DATA` or with the transaction `BP`.

The SAP Fiori app `MANAGE BUSINESS PARTNER MASTER DATA` is the single point of entry to create, edit, and display master data for business partner, vendors, and customers.

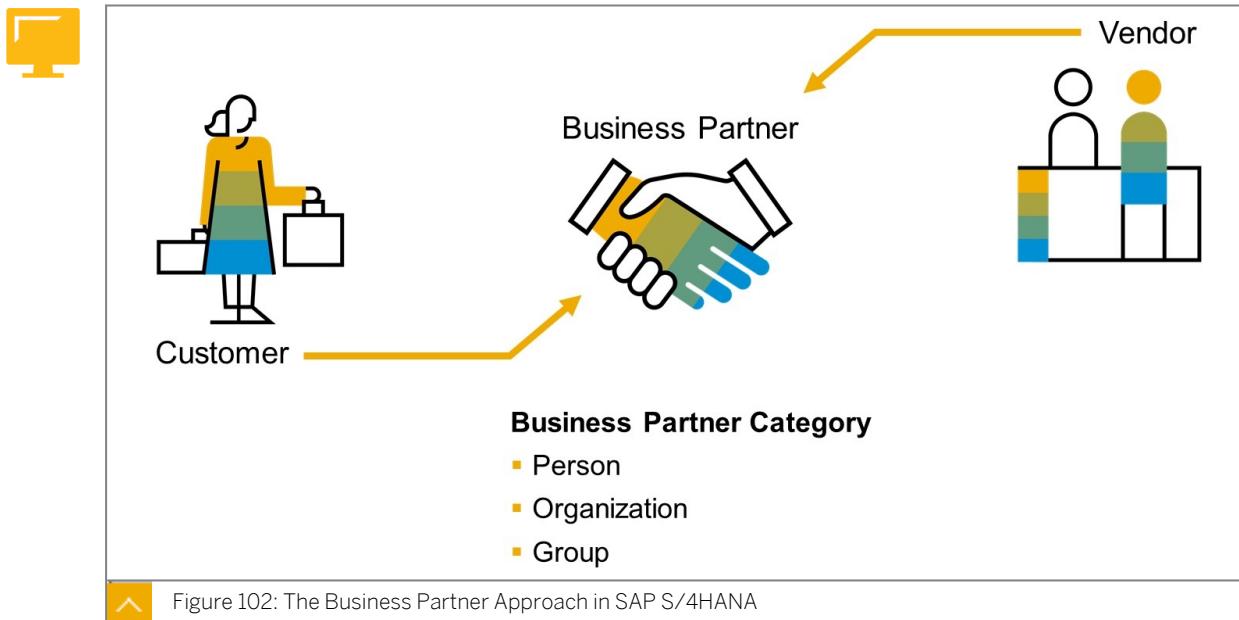


Figure 102: The Business Partner Approach in SAP S/4HANA

A business partner can be categorized as a person, group, or organization (legal person or part of a legal entity, for example, department).

A group represents a shared living arrangement, a married couple, or an executive board. An organization represents units such as a company, a department of a company, or an association. Organization is an umbrella term used to map every kind of situation in day-to-day business activities.

Furthermore, the business partner can be maintained for several roles (such as, vendor, FI vendor, or customer). This ensures that the relevant master data for the various processes can be recorded correspondingly and that the business partner can be used for the respective functions (such as, sold-to party).

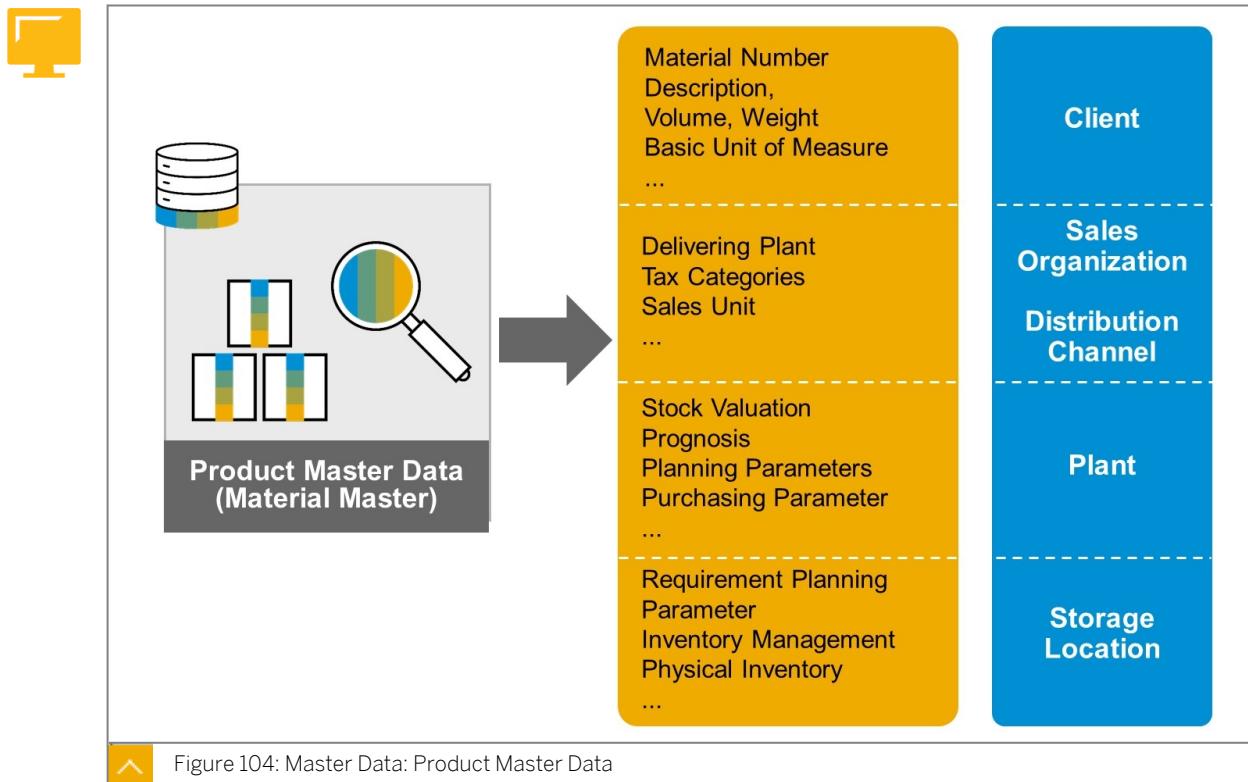


#### Animation: The Business Partner Approach in SAP S/4HANA

For more information on *The Business Partner Approach in SAP S/4HANA*, please view the animation in the lesson *Describing Master Data Concepts* in your online course.

## Product Master Data

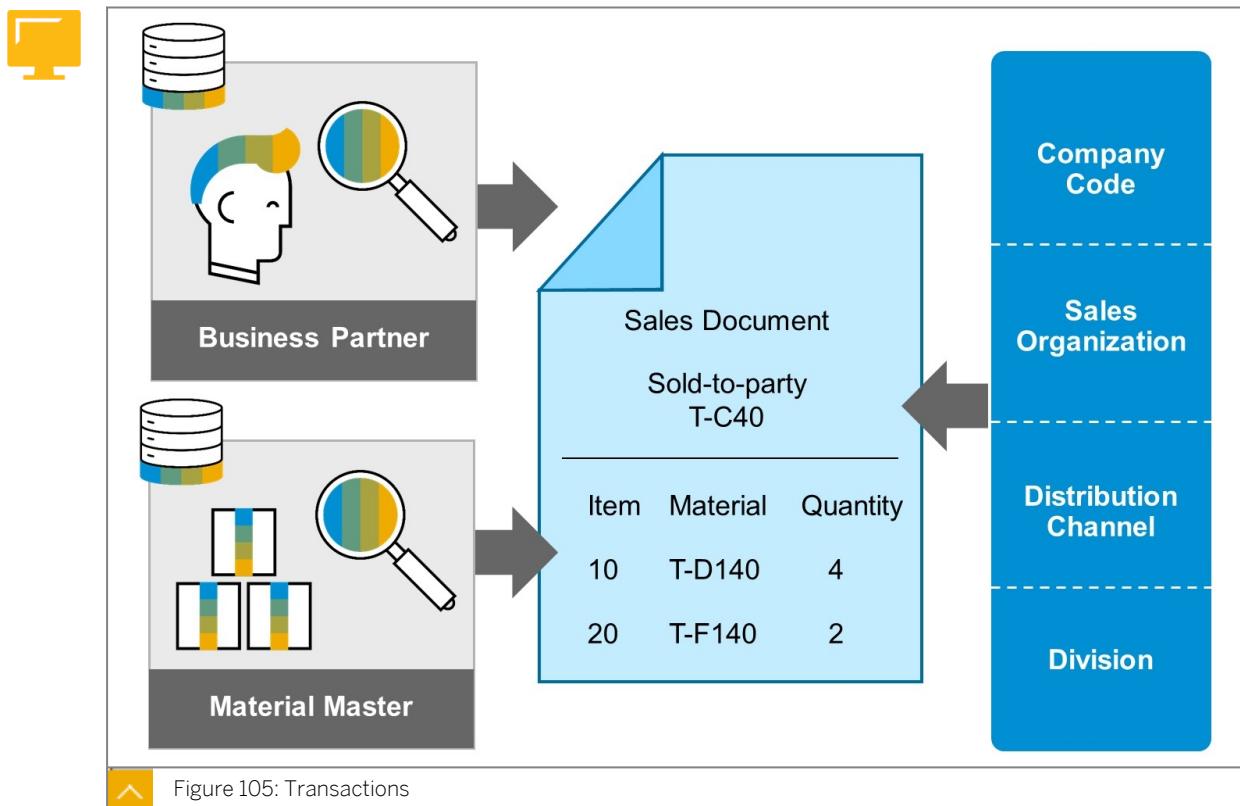
The Product Master Data (Material Master) contains all of the key information that a company needs to manage a material within its organization. The Product Master Data (Material Master) defines, among other things, how a product is sold, manufactured, purchased, inventoried, accounted, and calculated. The information in the Product Master Data (Material Master) is grouped into views that are organized by business function.



### Transactions

Transactions are application programs that execute business processes in the SAP system. Whenever possible, master data is copied during transaction processing, thus avoiding re-entry of data. For example, when executing the Create Sales Order transaction, the user must enter the customer master number. The customer master number is copied into all of the relevant customer information areas. Once the material master numbers are entered for the items being ordered, the relevant material data will be copied to the sales order.

When performing each transaction, applicable organizational elements must be entered. For example, by specifying the sales organization, the appropriate sales group is given credit for the sales activity. The designation of the plant and storage location determines product sourcing.



Documents are electronic data records of transactions, and contain all of the relevant, predefined information from the master data and organizational elements.

## Unit 3

### Exercise 5

# Display a Business Partner



#### Simulation: Display a Business Partner

For more information on *Display a Business Partner*, please view the simulation in the lesson *Describing Master Data Concepts* in your online course.

Display a business partner master record for a supplier.



#### Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Use the *Manage Business Partner Master Data* SAP Fiori app and display the T-AV## business partner.
2. Locate and record the following **General Information** and **Address Information**:

Field	Value
<i>Business Partner Category</i>	
<i>Search Term 1</i>	
<i>Street</i>	
<i>House Number</i>	
<i>Postal Code</i>	
<i>City</i>	
<i>Language</i>	

3. Locate and record the following data for the business partner role **FI Vendor** and for company code **1010**:

Field	Value
<i>Reconciliation Account</i>	
<i>Payment Terms</i>	
<i>Payment Methods</i>	

4. Locate and record the following data for the **Supplier** business partner role and for the Purchasing Organization 1010:

Field	Value
<i>Order Currency</i>	
<i>Payment Terms</i>	

# Unit 3

## Solution 5

### Display a Business Partner



Simulation: Display a Business Partner

For more information on *Display a Business Partner*, please view the simulation in the lesson *Describing Master Data Concepts* in your online course.

Display a business partner master record for a supplier.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Use the *Manage Business Partner Master Data* SAP Fiori app and display the T-AV## business partner.
  - a) Start the *Manage Business Partner Master Data* app (Group: S4H00 – Master Data) on the SAP Fiori launchpad home page.
  - b) In the *Business Partner* field, enter **T-AV##** and choose Go.

Figure 107: Manage Business Partner

- c) To display the details of the business partner, click the icon on the right side of the line in the list.

2. Locate and record the following **General Information** and **Address Information**:

Field	Value
Business Partner Category	
Search Term 1	
Street	
House Number	
Postal Code	
City	

Field	Value
Language	

- a) Display the *Business Partner T-AV##*.

The *Business Partner Category* is *Organization*

 <span style="font-size: small;">Grouping: Ext.alpha-num.numb.(a-z;CUST/SUPL) (BPAB)</span> <span style="border: 2px solid yellow; padding: 2px;">Business Partner Category: Organization (2)</span>
---

Figure 108: Business Partner Category

- b) The *Basis Data* tab displays the following data:

<span style="border: 2px solid yellow; padding: 2px;">Basic Data</span> Roles Address Address-Independent Communication Bank Accounts Payment Cards Identification Contacts Relationships Classification Attachments
--

Figure 109: Basic Data

Field	Value
Search Term 1	S4F13

- c) The *Address* tab displays the following data:

<span style="border: 2px solid yellow; padding: 2px;">Basic Data</span> Roles <span style="border: 2px solid yellow; padding: 2px;">Address</span> Address-Independent Communication Bank Accounts Payment Cards Identification Contacts Relationships Classification Attachments
---

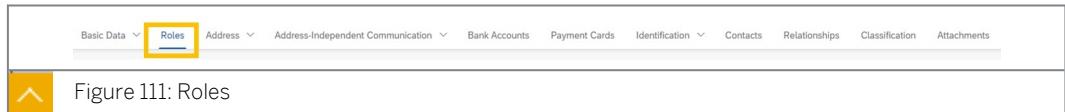
Figure 110: Address

Field	Value
Street	Main Street
House Number	199
Postal Code	20000
City	Hamburg
Language	English (EN)

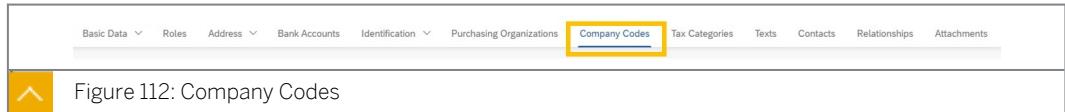
3. Locate and record the following data for the business partner role *FI Vendor* and for company code **1010**:

Field	Value
Reconciliation Account	
Payment Terms	
Payment Methods	

- a) Choose the *Roles* tab.



- b) Choose **FI Vendor**.
- c) To display the details of the Role **FI Vendor**, click the icon on the right side of the line in the list.
- d) Choose the **Company Codes** tab.



- e) Choose **Company Code 1010**.
- f) To display the details of the **Company Code 1010**, click the icon on the right side of the line in the list.
- g) On the **Finance** tab, you find the following data:

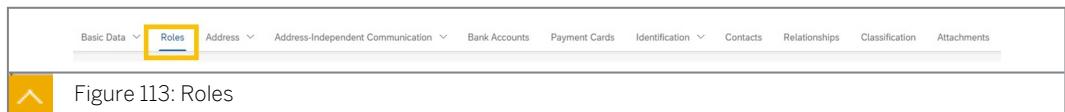
Field	Value
Reconciliation Account:	Trade Payables Domestic (21100000)
Payment Terms	Pay immediately w/o deduction (0001)
Payment Methods	SEPA Credit Transfer (T)

- h) Choose Back.
- i) Choose Back.

4. Locate and record the following data for the **Supplier** business partner role and for the Purchasing Organization 1010:

Field	Value
Order Currency	
Payment Terms	

- a) Choose the **Roles** tab.



b) Choose **Supplier**.

c) To display the details of the Role **Supplier**, click the  icon on the right side of the line in the list.

d) Choose the *Purchasing Organizations* tab.



e) Choose **Purch. Org. 1010**.

f) To display the details of the **Purch. Org. 1010**, click the  icon on the right side of the line in the list.

g) On the *Purchasing Organizations* tab, you find the following data:

Field	Value
Order Currency	Euro
Payment Terms	Pay immediately w/o deduction (0001)

h) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

## Unit 3

### Exercise 6

# Display a Product/Material Master Record



Simulation: Display a Product/Material Master Record

For more information on *Display a Product/Material Master Record*, please view the simulation in the lesson *Describing Master Data Concepts* in your online course.

Display a product/material master record.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Locate various organizational and field-level information contained within the product/material master record.

Using the information provided in the table, display the product/material master record with the SAP Fiori app *Manage Product Master Data*.

Field	Value
Product	T-R5##

2. Locate and record the following **General Information**:

Field	Value
Description	
Base Unit of Measure	
Product Type	
Product Group	

3. Locate and record the following **Distribution Chains** data:

Field	Value
Sales Organization	
Distribution Channel	
Delivery Plant	

Field	Value
<i>Sales Organization</i>	
<i>Distribution Channel</i>	
<i>Delivery Plant</i>	

4. Locate and record the following Plants data:

Field	Value
<i>Plant</i>	
<i>MRP Controller</i>	
<i>Plant</i>	
<i>MRP Controller</i>	

## Unit 3 Solution 6

# Display a Product/Material Master Record



Simulation: Display a Product/Material Master Record

For more information on *Display a Product/Material Master Record*, please view the simulation in the lesson *Describing Master Data Concepts* in your online course.

Display a product/material master record.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Locate various organizational and field-level information contained within the product/material master record.

Using the information provided in the table, display the product/material master record with the SAP Fiori app *Manage Product Master Data*.

Field	Value
Product	T-R5##

- a) Start the *Manage Product Master Data* app (Group: S4H00 – Master Data) on the SAP Fiori launchpad home page.
- b) In the *Product* field, enter T-R5## and choose Go.

Figure 116: Manage Product Master Data

- c) To display the details of the product master data, click the icon on the right side of the line in the list.
2. Locate and record the following **General Information**:

Field	Value
Description	

Field	Value
Base Unit of Measure	
Product Type	
Product Group	

- a) Display the *Product Master Data T-R5##*.
- b) The *General Information* tab displays the following data:



Figure 117: General Information

Field	Value
Description	Tyre and tube Group ##
Base Unit of Measure	Piece (PC)
Product Type	Raw materials (ROH)
Product Group	Raw Materials (L002)



Product Type: Raw materials (ROH)      Base Unit of Measure: Piece (PC)  
 Product Category: Product      GTIN:  
 Product Group: Raw Materials (L002)      GTIN Category:

Figure 118: Product Master Data T-R5##

3. Locate and record the following **Distribution Chains** data:

Field	Value
Sales Organization	
Distribution Channel	
Delivery Plant	
Sales Organization	
Distribution Channel	
Delivery Plant	

- a) The *Distribution Chains* tab displays the following data:



Figure 119: Distribution Chains

Field	Value
Sales Organization	Sales Org Germany, 1010
Distribution Channel	Direct Sales, 10
Delivery Plant	Hamburg (1010)
Sales Organization	Sales Org US, 1710
Distribution Channel	Direct Sales, 10
Delivery Plant	Plant 1 US (1710)

4. Locate and record the following Plants data:

Field	Value
Plant	
MRP Controller	
Plant	
MRP Controller	

a) The Plants tab displays the following data:



Figure 120: Plants

Field	Value
Plant	Hamburg, 1010
MRP Controller	0##
Plant	Plant 1 US (1710)
MRP Controller	001

b) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.



## LESSON SUMMARY

You should now be able to:

- Describe the master data concepts of SAP S/4HANA

## Learning Assessment

1. Which is the highest level of all organizational units and represents the enterprise or headquarters group?

*Choose the correct answer.*

- A Plant
- B Storage location
- C Company code
- D Client

2. Organizational elements define a company's enterprise structure within the SAP system for legal or business-related purposes.

*Determine whether this statement is true or false.*

- True
- False

3. Which of the following are examples of organizational elements?

*Choose the correct answer.*

- A Company code
- B Client
- C Plant
- D All of the above
- E None of the above

4. Which of the following are true statements about master data?

*Choose the correct answers.*

- A Master data is created centrally and is available to all applications and all authorized users.
- B Master data decreases data redundancy.
- C Master data is organized into views that are assigned to organizational elements.

5. Transactions are application programs that execute business processes in the SAP system.

*Determine whether this statement is true or false.*

- True
- False

6. Which of the following describes an electronic data record of transactions that contains predefined information from master data and organizational elements?

*Choose the correct answer.*

- A A report
- B A log
- C A document
- D An Inventory

# UNIT 4

# Logistics

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## UNIT OBJECTIVES

- Use Purchase-to-Pay Processing
- Use Plan-to-Produce Processing
- Use Order-to-Cash Processing

# Unit 4

## Lesson 1

# Using Purchase-to-Pay Processing



## LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Use Purchase-to-Pay Processing

## Purchase-to-Pay Processing

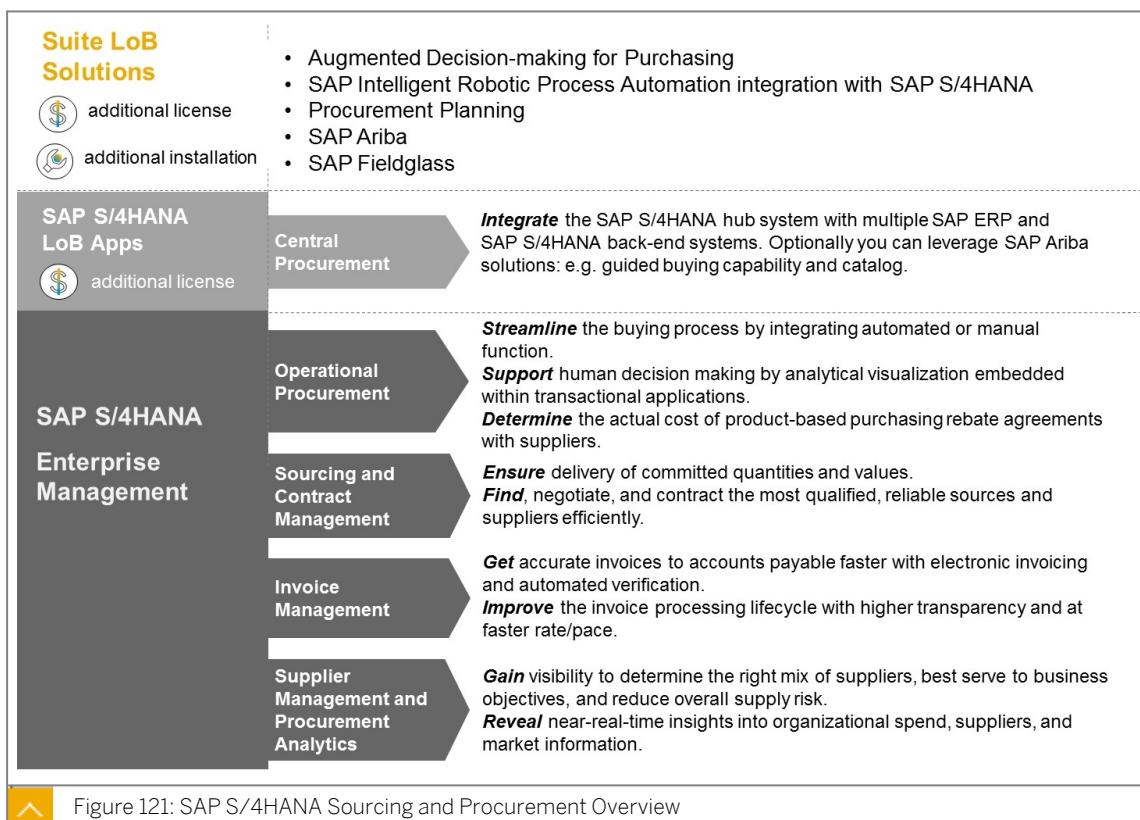
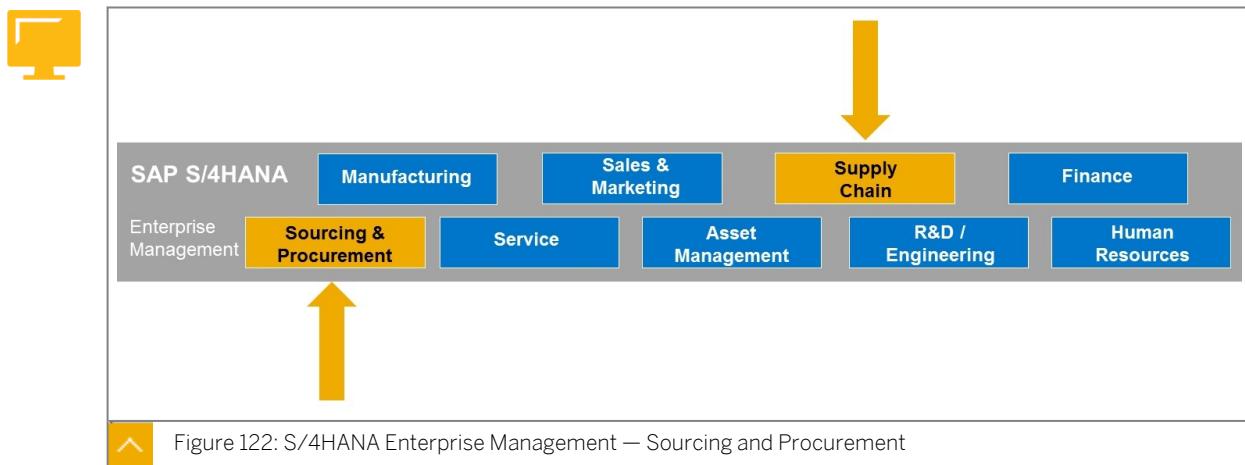


Figure 121: SAP S/4HANA Sourcing and Procurement Overview

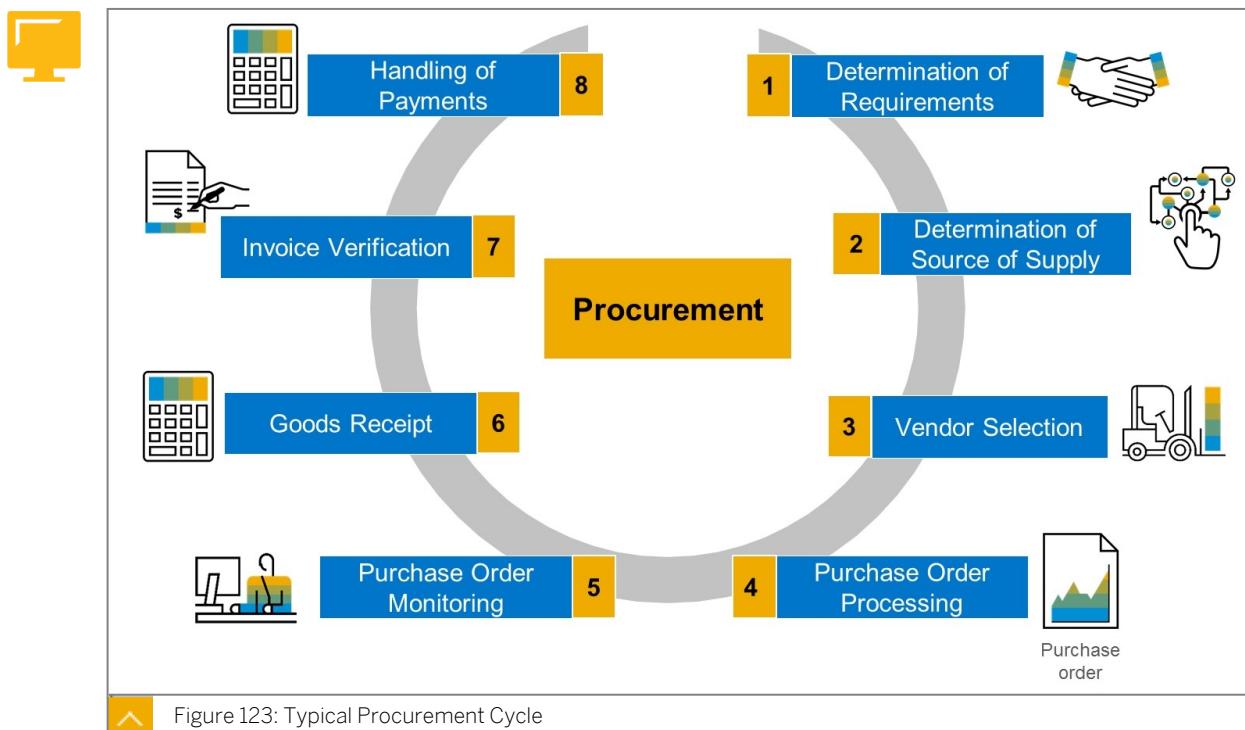
SAP S/4HANA helps you master your sourcing and procurement processes efficiently.

Streamline operational purchasing, automate sourcing and contract management, and centralize procurement processes.

### Sourcing and Procurement



Your enterprise plans to implement SAP S/4HANA Enterprise Management and you want to know how to execute logistics processes in this environment. You are especially interested in procurement and inventory management, manufacturing (production) and order fulfillment.



The figure, *Typical Procurement Cycle*, shows a typical procurement cycle, which is as follows:

#### 1. Demand determination

Determine material requirements.

#### 2. Source determination

Identify sources of supply.

#### 3. Supplier selection

Compare quotations.

#### 4. Purchase order creation

Create purchase orders; purchase order adopts information from the requisition or the quotation.

### 5. Order monitoring

Track orders; system provides up-to-date status of all purchase requisitions, quotations, and purchase orders.

### 6. Goods receipt

Confirm goods received.

### 7. Invoice verification

Check and match invoice for processing.

### 8. Payment processing

Process payment to the supplier.

With SAP S/4HANA, procurement processes have not been reinvented, but new control methods are offered by SAP Fiori apps.



#### Animation: Typical Procurement Cycle

For more information on *Typical Procurement Cycle*, please view the animation in the lesson *Using Purchase-to-Pay Processing* in your online course.

Procurement covers the end-to-end process that starts with requisition management, goes through to order management, then to goods receipt, invoice receipt, and supplier payment.

A variety of purchase requirements are handled quickly and efficiently. SAP S/4HANA simplifies the source of the supply assignment, therefore requiring less time to figure out which suppliers to use for orders.

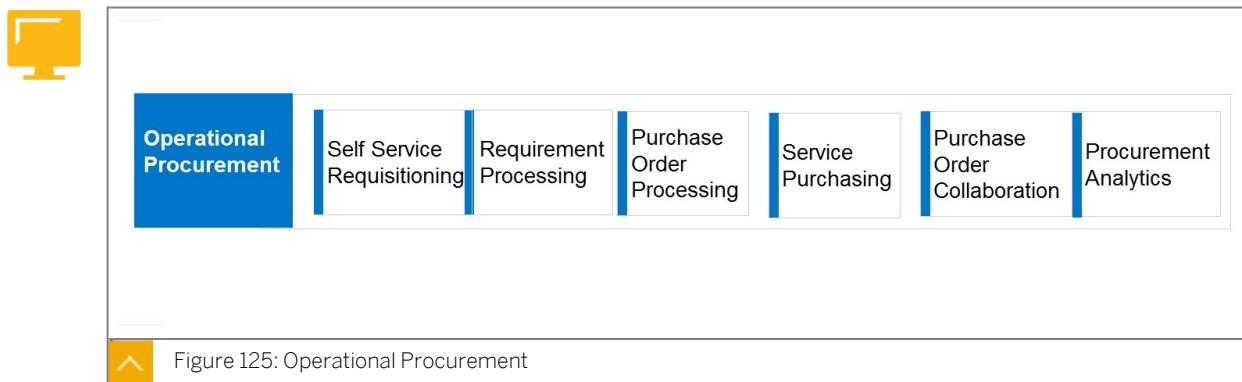
Employees are given self-service requisition capabilities to create, manage, and track their orders efficiently to allow the purchasing department to deal with more high-value strategic buying decisions, rather than the day-to-day, low-value items needed by the business.

Buying has been simplified with one-stop purchase order processing, combining requisition and shopping carts into a single business object.

There are up-to-date insights with real-time purchasing and inventory reporting, so we always have accurate information to support decision making.

We have native integration to support the transmission of purchase orders and other related documents through the SAP Ariba Network.

## Operational Procurement



With SAP S/4HANA the operational purchaser is supported holistically across all buying activities, such as, processing purchase requisitions, to find an appropriate source of supply, creating and processing purchase orders.

Employees are supported to search and request goods or services in a cross-catalog search with a consumer-grade user experience.

The complete requesting process is supported in the SAP Fiori UI, from creating the purchase requisition and confirmation of goods and services.

For purchase order collaboration, a native integration into the SAP Ariba network is provided with SAP S/4HANA.

Real-time procurement analytics facilitate the purchaser to react directly to spend exceptions or overdue purchase order items.

The end-to-end solution Operational Procurement consists of the following solution capabilities:

- Self-Service Requisitioning
- Requirement Processing
- Purchase Order Processing
- Service Purchasing
- Purchase Order Collaboration
- Procurement Analytics



#### Animation: Operational Procurement

For more information on *Operational Procurement*, please view the animation in the lesson *Using Purchase-to-Pay Processing* in your online course.

## Inventory Management

Inventory Management supports the identification, classification, valuation, and storage of stock items across complex supply chain networks.

Traditionally, a lot of stock movement posting was carried out in batch processes, particularly where stock movements needed to be calculated from production yields, such as, back-flushing. Therefore, the stock position was not always up to date. With SAP S/4HANA, we work in a real-time inventory management environment, where up-to-date information is always available.

At any moment, you can see across a time horizon all future stock movements and balances that include all demand and supply, and at all levels of product structures, right down to the smallest component.

You can finally see accurate costs associated with all levels of the bill of material (BOM) in real time. This means you can calculate real-time profitability of products, based on accurate direct and indirect costs.

By working with real-time inventory, there is no longer a need for the stock buffers that were used in the past to make up for inaccuracies and allow for discrepancies. This results in an increased stock turnover.

With the power and speed of SAP HANA, you no longer have to process inventory in large, aggregated batches; you can process much smaller lot sizes on demand.

### **Invoice and Payables Management**

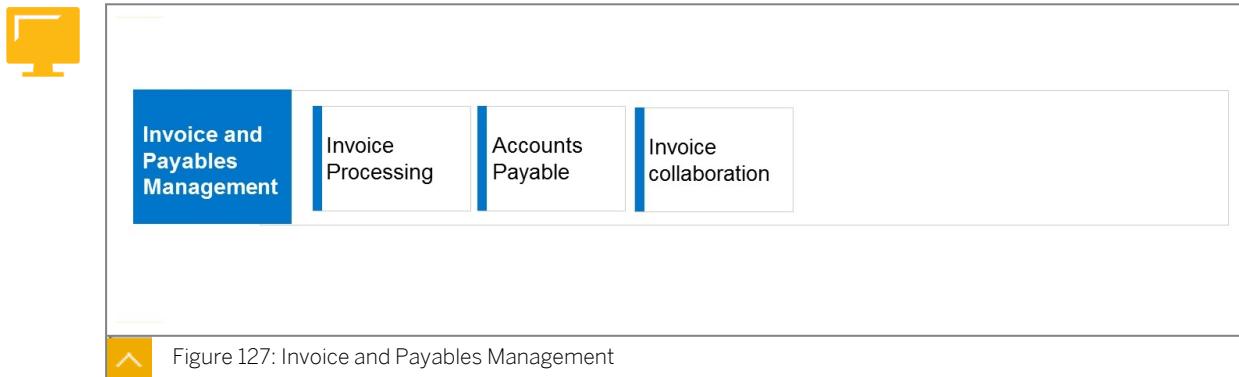


Figure 127: Invoice and Payables Management

With the Supplier Invoice List and Create Supplier Invoice apps, SAP S/4HANA offers business users the possibility to create supplier invoices with or without reference to a purchase order and to view and directly correct inaccurate supplier invoices.

Integration capabilities between the apps and object pages accelerate the completion of processing supplier invoices.

A standard integration into the SAP Ariba network is provided natively in SAP S/4HANA.

The end-to-end Invoice and Payables Management solution has the following solution capabilities:

- Invoice processing
- Accounts payable
- Invoice collaboration

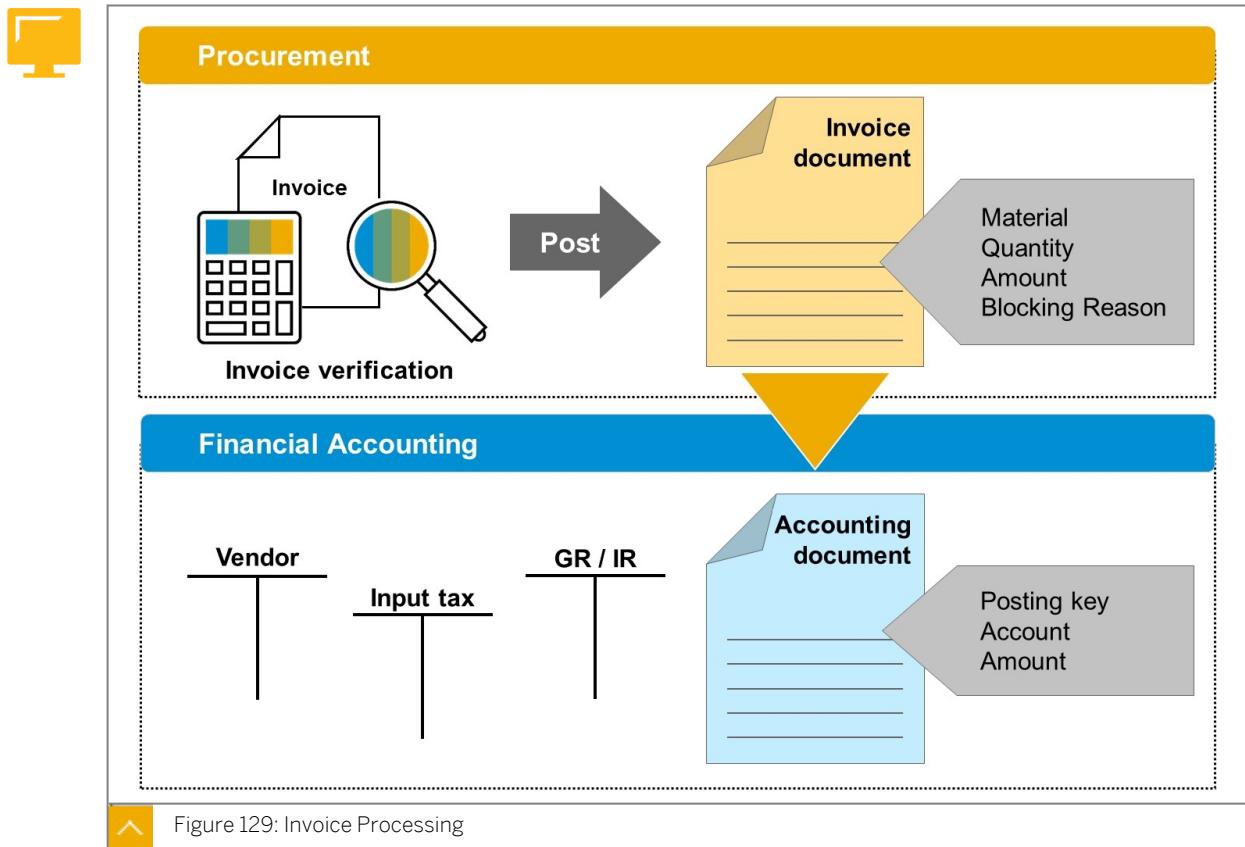


#### Animation: Invoice and Payables Management

For more information on *Invoice and Payables Management*, please view the animation in the lesson *Using Purchase-to-Pay Processing* in your online course.

The differentiators are a new SAP Fiori app for invoice processing and the native standard integration into the SAP Ariba Business Network for supplier invoice collaboration.

In addition to the SAP Fiori apps, GUI transactions such as *Create Supplier Invoice – Advanced* can be started from the SAP Fiori launchpad home page.



The procurement process is concluded by the Logistics Invoice Verification process, during which invoices and credit memos are checked for accuracy and entered into the system. Payment and evaluation of invoices are part of the accounting process. Logistics Invoice Verification creates a link between procurement and accounting.

When you enter an invoice with reference to a purchase order, data (for example, vendor, material, quantity still to be invoiced, or terms of payment) is displayed on your screen.

If there are discrepancies between the purchase order or goods receipt and the invoice, a warning is displayed and, depending on the system configuration, the system blocks the invoice for payment.

Invoice posting completes the Logistics Invoice Verification process. The system updates the purchase order history, and financial accounting initiates payment for the open invoice items.



## Unit 4 Exercise 7

### Create a Purchase Order



Simulation: Create a Purchase Order

For more information on *Create a Purchase Order*, please view the simulation in the lesson *Using Purchase-to-Pay Processing* in your online course.

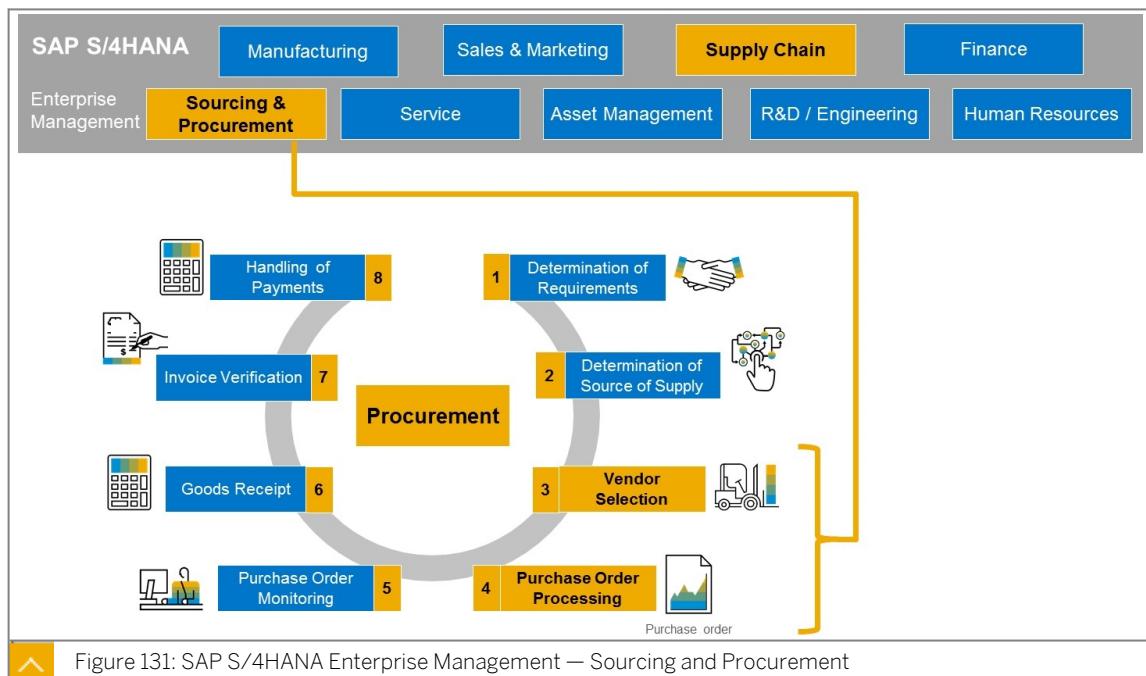


Figure 131: SAP S/4HANA Enterprise Management – Sourcing and Procurement

In the following steps, you will purchase a material.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. The warehouse stock of material **T-R5##** must be replenished.  
Order 300 pieces of material **T-R5##** (Tyre and Tube Group ##) for plant 1010 from supplier **T-AV##**.  
Use the SAP Fiori app *Create Purchase Order Advanced* to create the purchase order.
2. Use the SAP Fiori app *Manage Purchase Orders* to select all Purchase Orders (POs) for supplier **T-AV##** and your purchasing group **Z##**.  
Display your purchase order.

# Unit 4

## Solution 7

### Create a Purchase Order



#### Simulation: Create a Purchase Order

For more information on *Create a Purchase Order*, please view the simulation in the lesson *Using Purchase-to-Pay Processing* in your online course.

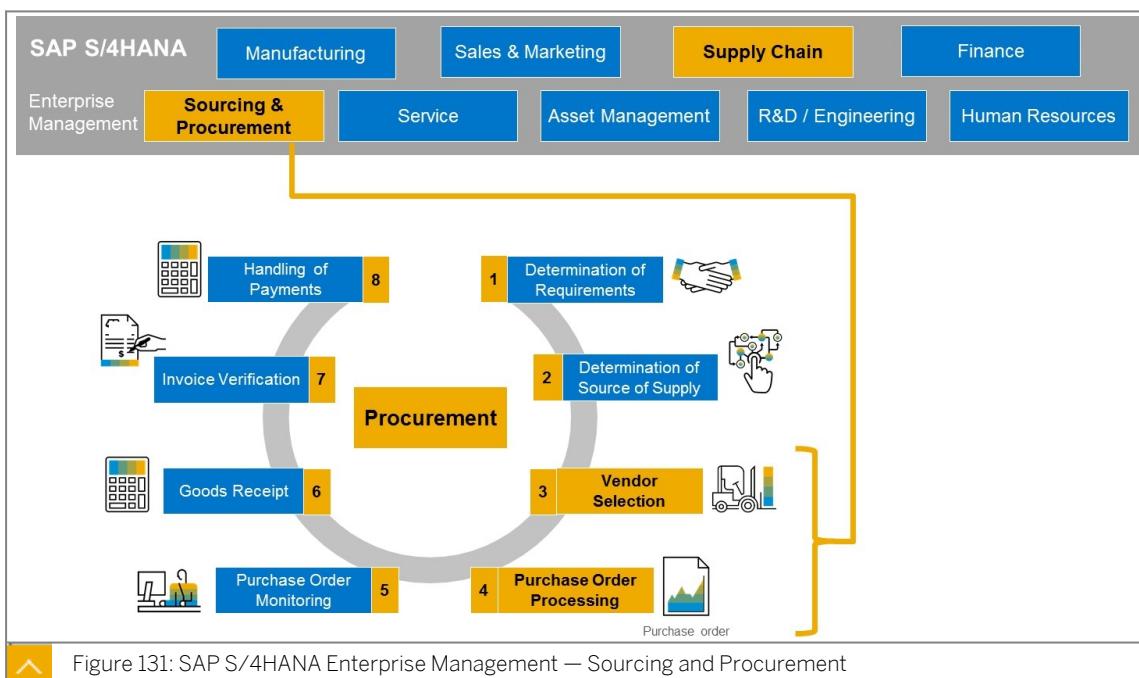


Figure 131: SAP S/4HANA Enterprise Management – Sourcing and Procurement

In the following steps, you will purchase a material.



#### Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. The warehouse stock of material **T-R5##** must be replenished.  
Order 300 pieces of material **T-R5##** (Tyre and Tube Group ##) for plant 1010 from supplier **T-AV##**.  
Use the SAP Fiori app **Create Purchase Order Advanced** to create the purchase order.
  - a) Start the **Create Purchase Order Advanced** app (Group: S4HOO - Purchase-to-Pay Processing) on the SAP Fiori launchpad home page.
  - b) In the **Supplier** field, enter **T-AV##**.

- c) In the *Material* field, enter **T-R5##**.
- d) In the *PO Quantity* field, enter **300**.
- e) To create the purchase order, on the bottom part of the screen, choose **Save**.
- f) System message: Standard PO created under the number .....

g) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

2. Use the SAP Fiori app *Manage Purchase Orders* to select all Purchase Orders (POs) for supplier **T-AV##** and your purchasing group **Z##**.  
Display your purchase order.
  - a) Start the *Manage Purchase Orders* app (Group: S4H00 - Purchase-to-Pay Processing) on the SAP Fiori launchpad home page.
  - b) Enter Supplier **T-AV##** and your Purchasing Group **Z##** as filter values.
  - c) To start the selection, choose **Go**.
  - d) To display the details of your PO, click the *Purchase Order* number or the  icon on the right side of the item line in the list.

e) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.



## Unit 4 Exercise 8

# Create the Goods Receipt for the Purchase Order



Simulation: Create the Goods Receipt for the Purchase Order

For more information on *Create the Goods Receipt for the Purchase Order*, please view the simulation in the lesson *Using Purchase-to-Pay Processing* in your online course.

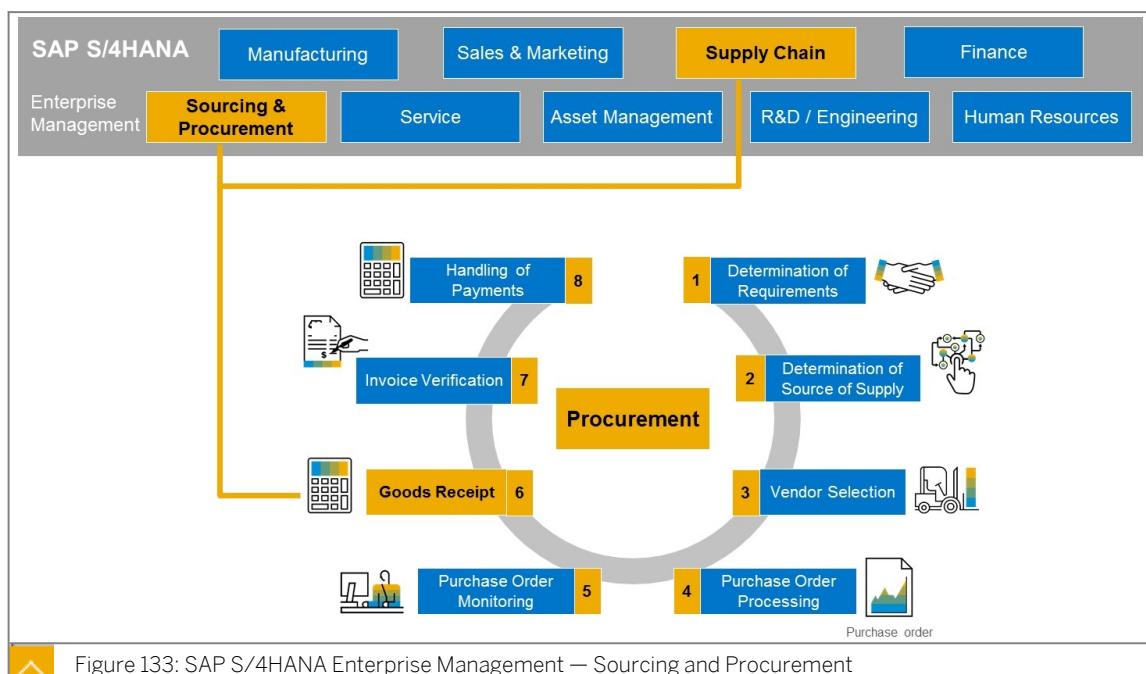


Figure 133: SAP S/4HANA Enterprise Management – Sourcing and Procurement

In the following steps you will post the goods receipt for the purchase order. After posting the purchase order, you check the material stock and post further goods movements.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

- Post a goods receipt with reference to your Purchase Order (PO).

For an easy way to select your purchase order, use the SAP Fiori app *My Purchasing Document Items Professional*.

Post the delivered quantity of **300** Piece to Unrestricted-Use stock in storage location **101C** (Raw mat. stoloc.).

Enter **DLN##** as the delivery note.

2. Use the SAP Fiori app *Material Documents Overview* to display the material document.  
In the material document, go to the Process Flow.
3. Transfer the unrestricted-use stock of material **T-R5##** in plant **1010**.  
Transfer **150** PC in storage location **101B**, **unrestricted-use stock**, and the other **150** PC to storage location **101C**, **blocked stock**.  
Use the SAP Fiori app *Transfer Stock In-Plant* and perform all bookings for plant **1010**.

## Unit 4 Solution 8

# Create the Goods Receipt for the Purchase Order



Simulation: Create the Goods Receipt for the Purchase Order

For more information on *Create the Goods Receipt for the Purchase Order*, please view the simulation in the lesson *Using Purchase-to-Pay Processing* in your online course.

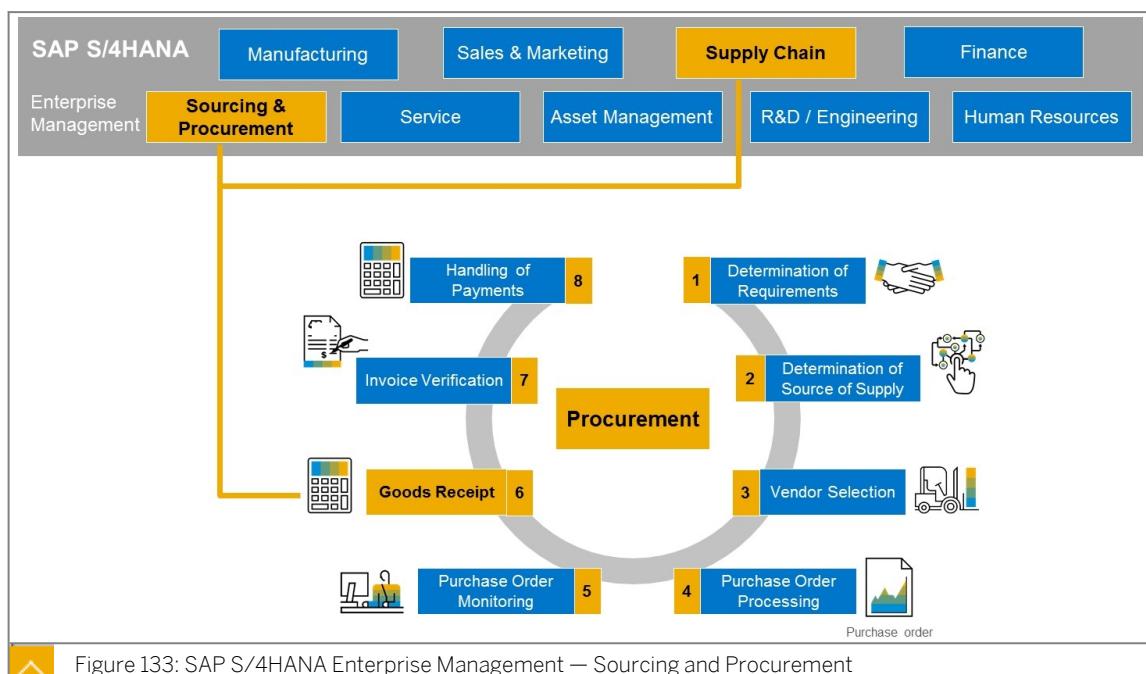


Figure 133: SAP S/4HANA Enterprise Management – Sourcing and Procurement

In the following steps you will post the goods receipt for the purchase order. After posting the purchase order, you check the material stock and post further goods movements.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

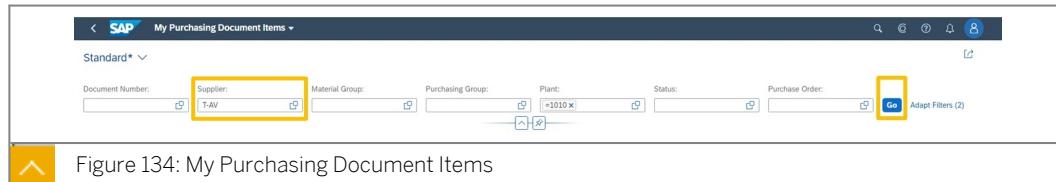
- Post a goods receipt with reference to your Purchase Order (PO).

For an easy way to select your purchase order, use the SAP Fiori app *My Purchasing Document Items Professional*.

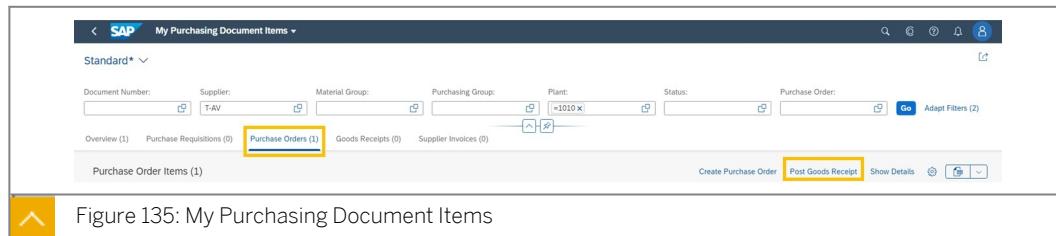
Post the delivered quantity of **300** Piece to Unrestricted-Use stock in storage location **101C** (Raw mat. stoloc.).

Enter **DLN##** as the delivery note.

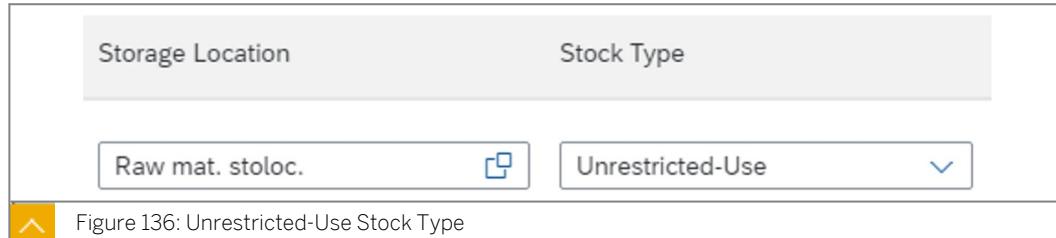
- Start the *My Purchasing Document Items Professional* app (Group: S4H00 - Purchase-to-Pay Processing) on the SAP Fiori launchpad home page.
- In the *Supplier* field, enter **T-AV##** and choose Go.



- Switch from the Overview list to the list with *Purchase Orders*.
- Select your purchase order and choose *Post Goods Receipt* on the right part of the screen.



- Enter the Delivery Note **DLN##**, the storage location **101C** (Raw. mat. stoloc.), and then choose the stock type *Unrestricted-Use*.



- If necessary, select the item.
- In the bottom part of the screen, choose *Post*.
- System message: 1 document(s) created: Material Document: .....
- Choose OK.
- Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

- Use the SAP Fiori app *Material Documents Overview* to display the material document.

In the material document, go to the Process Flow.

- Start the *Material Documents Overview* app (Group: S4H00 - Purchase-to-Pay Processing) on the SAP Fiori launchpad home page.
- If necessary, Expand Header:

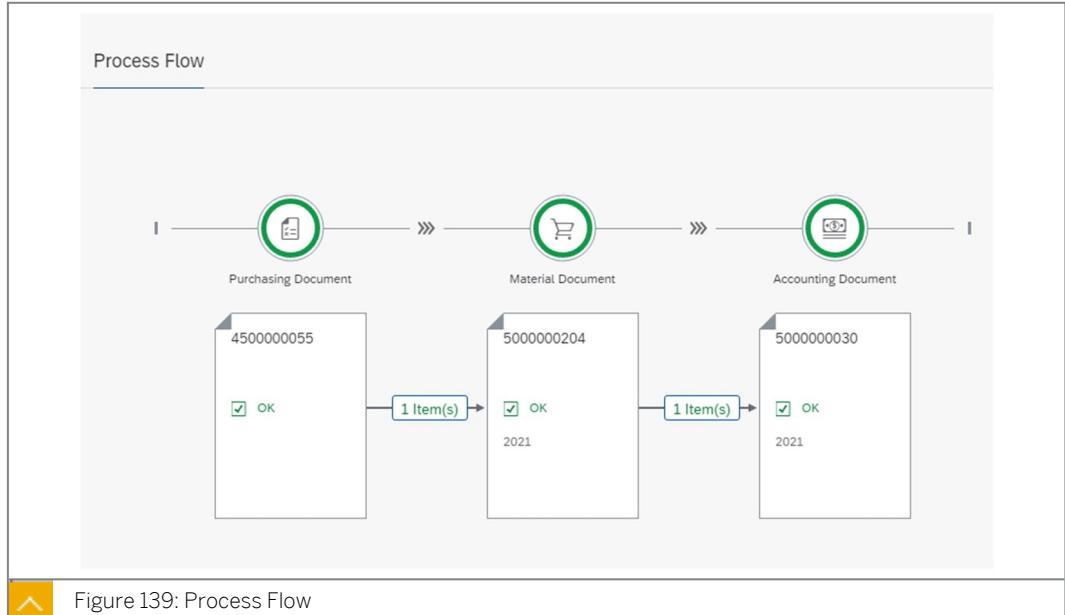


c) In the *Material* field, enter **T-R5##** and choose Go.



d) Choose the material document number or the icon on the right side of the item line in the list.

e) In the material document, go to the Process Flow.



f) Choose (SAP Logo) to go back to the SAP Fiori launchpad home page.

3. Transfer the unrestricted-use stock of material **T-R5##** in plant **1010**.

Transfer **150** PC in storage location **101B**, **unrestricted-use stock**, and the other **150** PC to storage location **101C**, **blocked stock**.

Use the SAP Fiori app *Transfer Stock In-Plant* and perform all bookings for plant **1010**.

- Start the *Transfer Stock In-Plant* app (Group: S4H00 - Purchase-to-Pay Processing) on the SAP Fiori launchpad home page.
- Enter **1010** as plant and **T-R5##** as material.
- Choose *Enter*.

- d) Choose the  button near the Unrestricted-Use Stock quantity in storage location 101C.
- e) Choose the  button near the Unrestricted-Use Stock quantity in storage location 101B.
- f) In the dialog box, enter quantity **150**, choose *Enter*, and then choose *Post*.
- g) System message: Material document ..... created.
- h) Choose *OK*.
- i) Choose the  button near the Unrestricted-Use Stock quantity in storage location 101C.
- j) Choose the  button near the Blocked Stock quantity in storage location 101C.
- k) In the dialog box, enter quantity **150**, choose *Enter*, and then choose *Post*.
- l) System message: Material document ..... created.
- m) Choose *OK*.
- n) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

## Unit 4 Exercise 9

### Perform Invoice Verification



Simulation: Perform Invoice Verification

For more information on *Perform Invoice Verification*, please view the simulation in the lesson *Using Purchase-to-Pay Processing* in your online course.

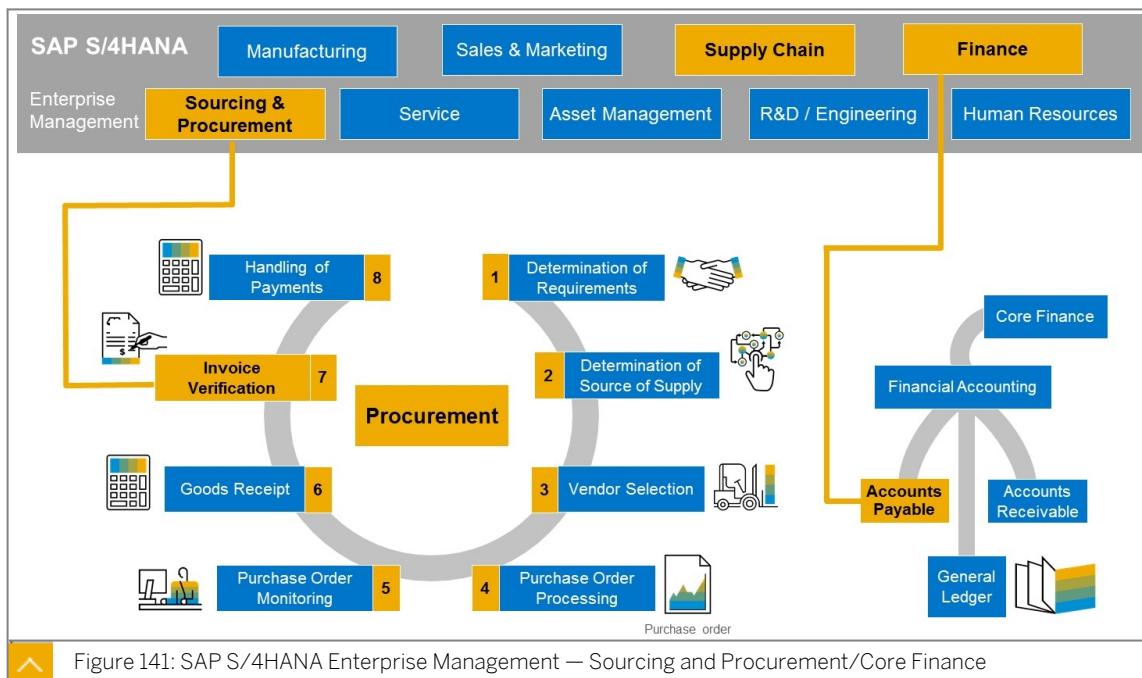


Figure 141: SAP S/4HANA Enterprise Management – Sourcing and Procurement/Core Finance

In this exercise you post an invoice for the purchase order for 300 pieces of material **T-R5##**, which you had created for supplier **T-AV##**.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Use the integrated search functionality in the SAP Fiori launchpad home page to find all objects for the material **T-R5##**.  
Make a note of the number of your purchase order for supplier **T-AV##**.  
Purchase order number:  

---
2. Create with the SAP Fiori app *Create Supplier Invoice* a supplier invoice for the purchase order you found in step 1 using the following data:

Field	Value
<i>Transaction</i>	<b>Invoice</b>
<i>Company Code</i>	<b>1010</b>
<i>Gross Invoice Amount</i>	<b>2320,50 EUR</b>
<i>Invoice date</i>	Today's date
<i>Posting date</i>	Today's date
<i>Reference</i>	<b>INV##</b>
<i>Invoicing Party</i>	<b>T-AV##</b>
<i>Purchase Order</i>	Your PO number (Unit 4, Exercise 1)
<i>Item: Quantity</i>	<b>300 PC</b>
<i>Item: Tax Code</i>	<b>V1</b>

3. Select with the SAP Fiori app *Supplier Invoices List* all invoices for supplier **T-AV##**.  
**Check** whether your invoice with reference **INV##** is blocked.  
**If it is blocked**, release the invoice.

# Unit 4

## Solution 9

### Perform Invoice Verification



#### Simulation: Perform Invoice Verification

For more information on *Perform Invoice Verification*, please view the simulation in the lesson *Using Purchase-to-Pay Processing* in your online course.

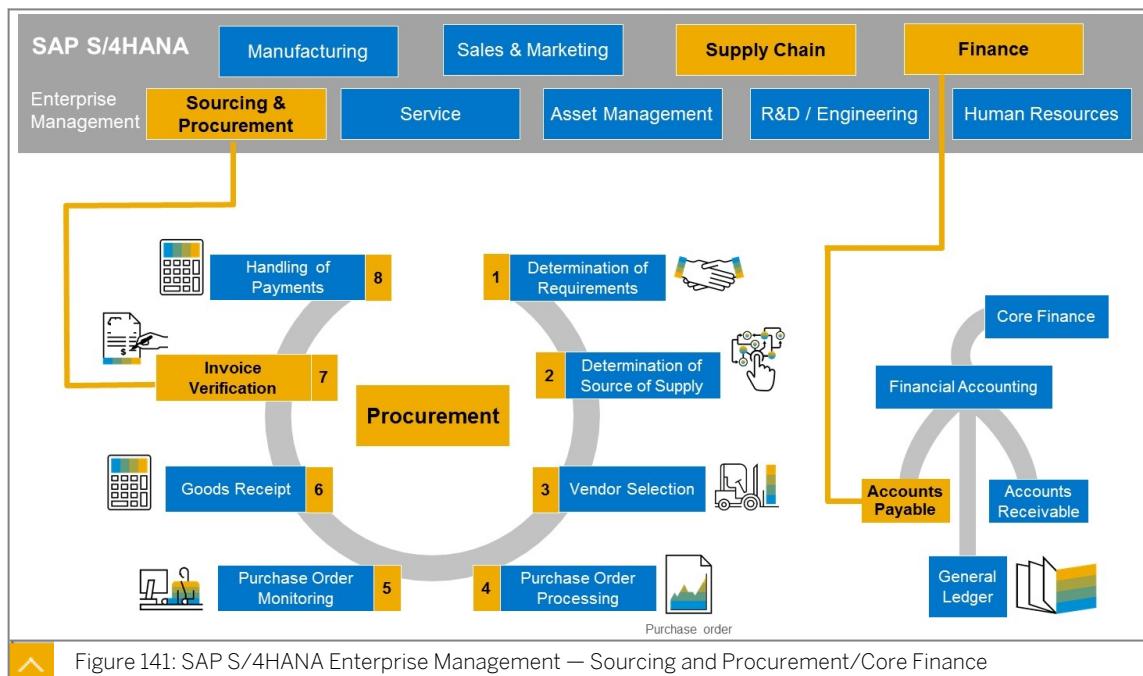


Figure 141: SAP S/4HANA Enterprise Management – Sourcing and Procurement/Core Finance

In this exercise you post an invoice for the purchase order for 300 pieces of material **T-R5##**, which you had created for supplier **T-AV##**.



#### Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Use the integrated search functionality in the SAP Fiori launchpad home page to find all objects for the material **T-R5##**.

Make a note of the number of your purchase order for supplier **T-AV##**.

Purchase order number:

a) Choose  Search on the right side of the header area of the SAP Fiori launchpad home page.

b) In the Search field, enter **T-R5##**.

c) Choose *Enter*.

d) Go to the list with *Purchase Orders* and write down the document number of your purchase order for supplier **T-AV##**.

e) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

2. Create with the SAP Fiori app *Create Supplier Invoice* a supplier invoice for the purchase order you found in step 1 using the following data:

Field	Value
<i>Transaction</i>	<b>Invoice</b>
<i>Company Code</i>	<b>1010</b>
<i>Gross Invoice Amount</i>	<b>2320,50 EUR</b>
<i>Invoice date</i>	Today's date
<i>Posting date</i>	Today's date
<i>Reference</i>	<b>INV##</b>
<i>Invoicing Party</i>	<b>T-AV##</b>
<i>Purchase Order</i>	Your PO number (Unit 4, Exercise 1)
<i>Item: Quantity</i>	<b>300 PC</b>
<i>Item: Tax Code</i>	<b>V1</b>

a) On the SAP Fiori launchpad home page, start the *Create Supplier Invoice* app (Group: S4H00 - Purchase-to-Pay Processing).

b) If the *Company Code* dialog box appears, enter the company code, **1010**.

c) In the header, enter the data provided in the table.

Field	Value
<i>Transaction</i>	<b>Invoice</b>
<i>Company Code</i>	<b>1010</b>
<i>Gross Invoice Amount</i>	<b>2320,50 EUR</b>
<i>Invoice date</i>	Today's date

Field	Value
Posting date	Today's date
Reference	INV##
Invoicing Party	T-AV##

Figure 142: Header Data

d) For the item, enter the data provided in the table.

Field	Value
Purchase Order	Your PO number (Unit 4, Exercise 1)
Item: Quantity	300 PC
Item: Tax Code	V1

Figure 143: Item Data

- e) If necessary, choose *Assignment Options* and select your purchase order number.
- f) If you want to check the correctness of your entries, choose *Simulate* in the bottom part of the screen.
- g) To finish the invoice creation, choose *Post*.
- h) System message: Documents have been created. Supplier invoice ..... Do you want to create a new supplier invoice?
- i) Choose *No*.
3. Select with the SAP Fiori app *Supplier Invoices List* all invoices for supplier **T-AV##**. Check whether your invoice with reference **INV##** is blocked. If it is blocked, release the invoice.
- a) Start the *Supplier Invoices List* app (Group: S4H00 - Purchase-to-Pay Processing) from the SAP Fiori launchpad home page.
- b) Enter **T-AV##** (Company Code 1010) as the Invoicing Party and choose Go.

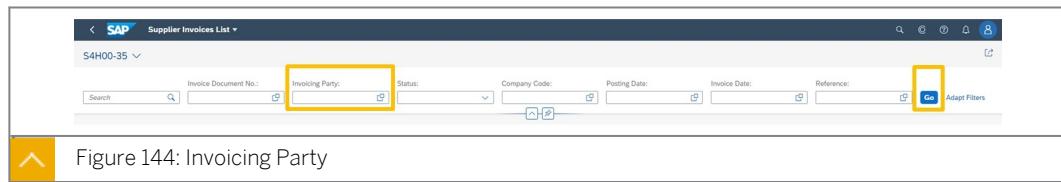


Figure 144: Invoicing Party

c) Enter **INV##** as Reference and choose Go again.

d) The invoice is **not Blocked (Logistics)**:

Invoices (1)										
Invoice Number	Invoicing Party	Status	Company Code	Gross Invoice Amount	Posting Date	Invoice Date	Reference	Entry Type	Online	Blocked (Logistics)
5109600195/2023	TA Real Estate Agency Hamburg (T-ALV )	Posted	1010	2.320,50 EUR	27.12.2021	27.12.2021	INV		No	27.12.2021 >

Figure 145: NOT Blocked (Logistics)



Note:

If the invoice is **Blocked (Logistics)**, click in the line of your invoice and in the top right side of the screen, choose *Release*.

e) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.



## LESSON SUMMARY

You should now be able to:

- Use Purchase-to-Pay Processing

# Unit 4

## Lesson 2

# Using Plan-to-Produce Processing



## LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Use Plan-to-Produce Processing

## Plan-to-Produce Processing



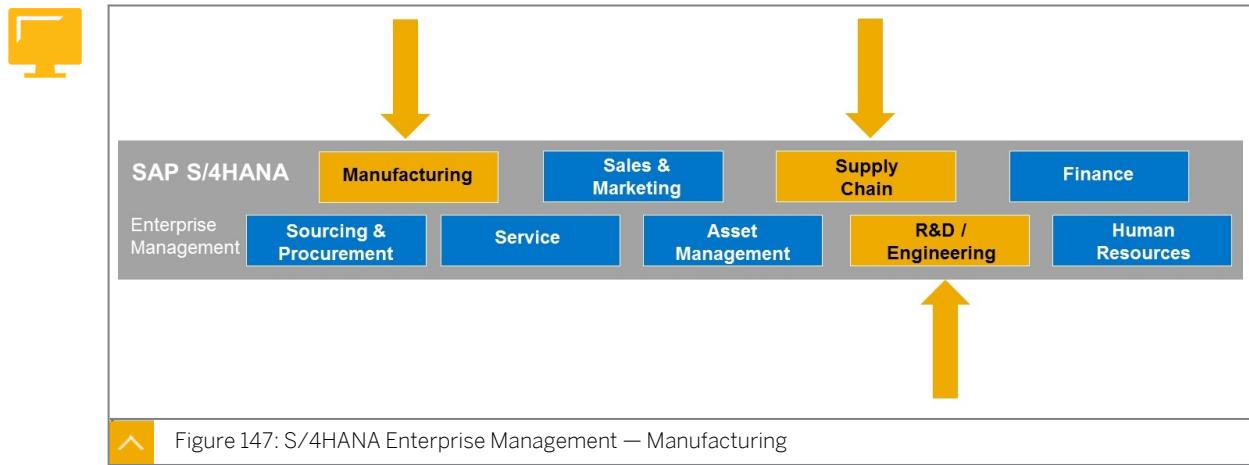
<b>Suite LoB Solutions</b> additional license additional installation	<ul style="list-style-type: none"><li>• SAP Integrated Business Planning</li><li>• SAP Digital Manufacturing Cloud</li><li>• SAP Manufacturing Suite (SAP ME, SAP MII, Plant Connectivity)</li><li>• SAP Analytics Cloud</li></ul>
<b>SAP S/4HANA LoB Apps</b> additional license	<p><i>Extended Production Planning &amp; Scheduling</i></p> <p><i>Production Engineering &amp; Operations (PEO)</i></p> <p><i>Production Engineering</i></p> <p><i>Production Planning</i></p> <p><i>Production Operations</i></p> <p><i>Quality Management</i></p> <p><i>Manufacturing Insights</i></p> <p><i>Design</i> products &amp; resources manage the change throughout the life cycle. Manage master data such as materials, routings, BoMs, recipes, work centers, and so on.</p> <p><i>Plan</i> products and components to initiate internal and external procurement. Use with MRP live in memory processing performance improvements for more current planning results.</p> <p><i>Control</i> manufacturing operations for discrete, process, and repetitive in industry variations &amp; extensions, fully integrated with Supply Chain &amp; Finance.</p> <p><i>Inspect</i> production processes and goods receipts. Manage inspection lots and apply usage decisions to improve manufacturing output.</p> <p><i>Analyze</i> manufacturing data for process improvements, decision support reporting and documentation purposes. Provide alerts for exception based management.</p>
<b>SAP S/4HANA Enterprise Management</b>	

Figure 146: SAP S/4HANA: Manufacturing Overview

Manufacturing in SAP S/4HANA comprises solution capabilities for planning and controlling production, for manufacturing execution, and for quality management.

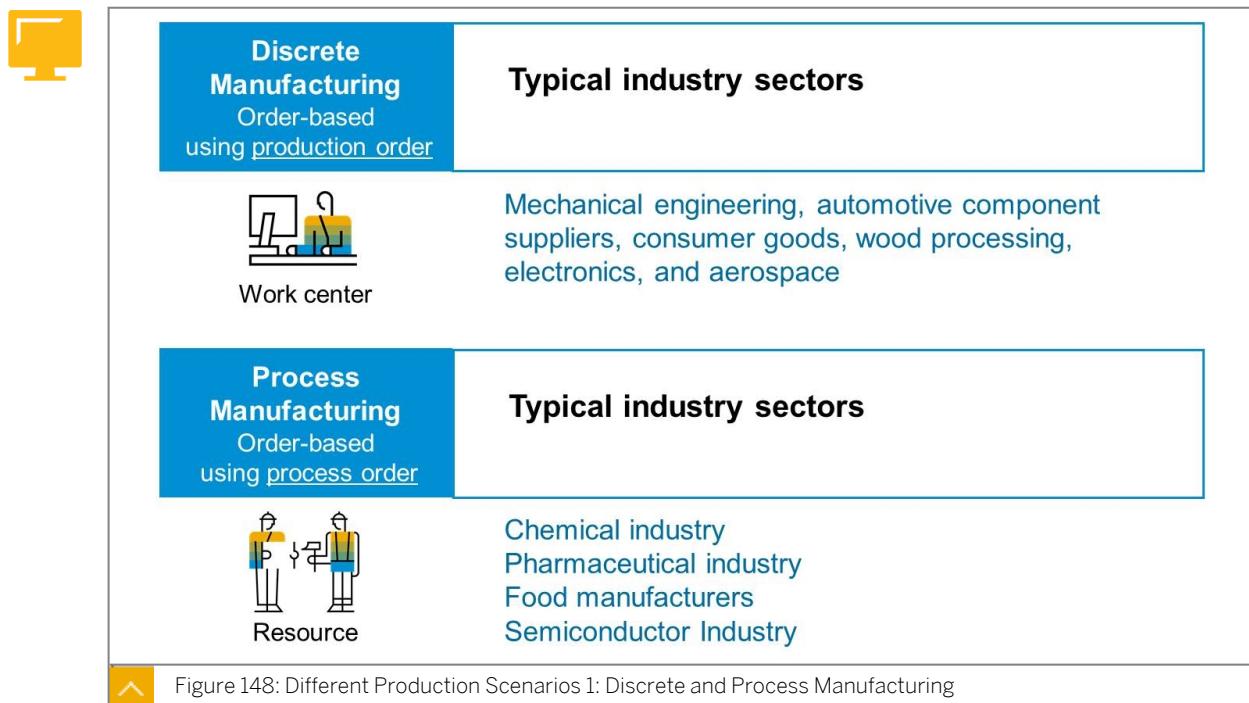
Improve production planning, support complex assembly processes, and enable seamless manufacturing engineering.

## Manufacturing

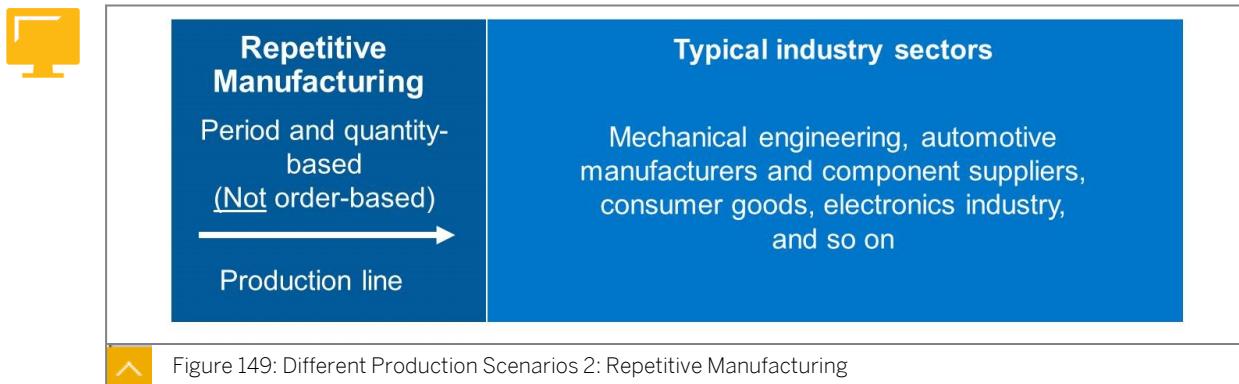


Your enterprise plans to implement SAP S/4HANA Enterprise Management and you want to know how to execute logistics processes in this environment.

You are especially interested in procurement and inventory management, manufacturing (production), and order fulfillment.



Depending on the manufacturing process, product complexity, stability of production, and other criteria, a company usually has various different requirements with regard to shop floor control. Order-based production scenarios like discrete manufacturing and process manufacturing offer various ways of controlling the production process.



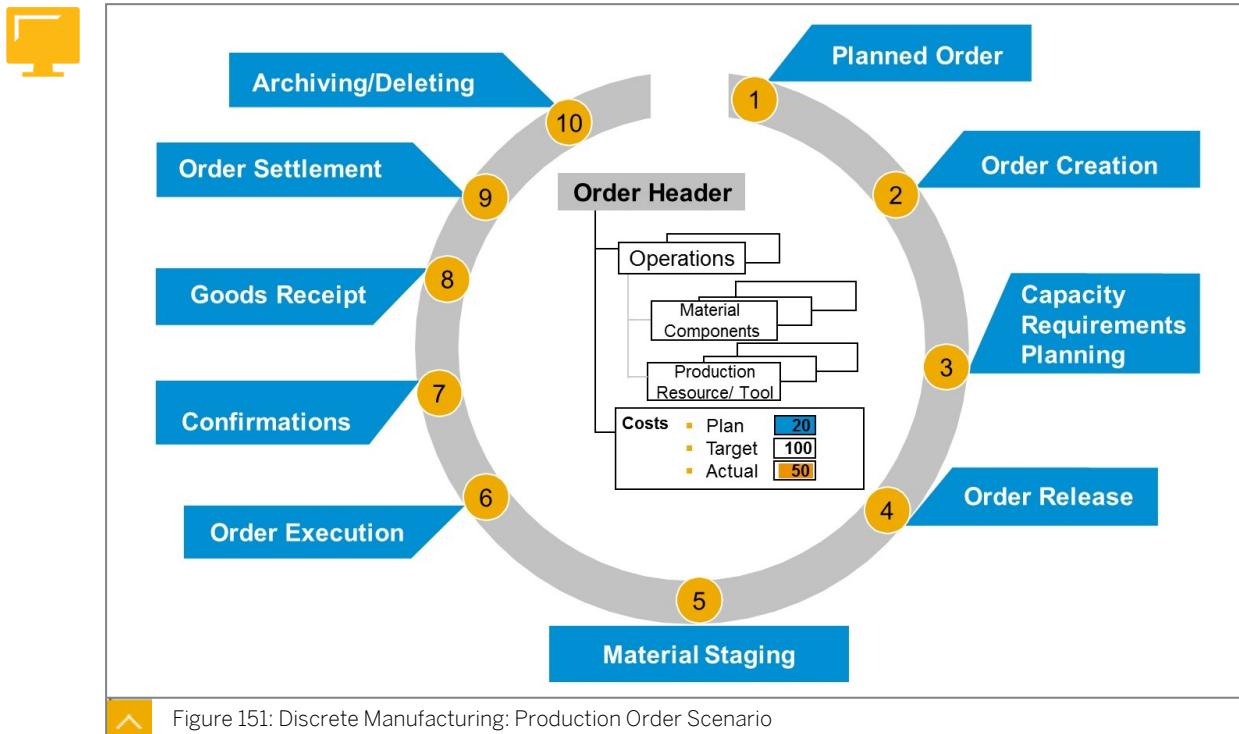
Production scenarios without production or process orders (like in repetitive manufacturing) offer a lean and efficient way to model the production process.



Animation: Different Production Scenarios

For more information on *Different Production Scenarios*, please view the animation in the lesson *Using Plan-to-Produce Processing* in your online course.

### Discrete Manufacturing: Production Order Scenario



The production order is the central data object in shop floor control and manufacturing execution. The production order contains all data relevant to production objectives, material components, required resources, and costs. A normal production order covers the demand for a single material or product. You can produce multiple products jointly in one production order (co-products) and distribute incurred costs between the different products.

In a production order, you can specify external operations that are to be processed in an outside workshop. Production orders are usually created from planned orders.

The production process includes the following steps:

1. Production planning: Determine production requirements and ensure sufficient manufacturing capability.
2. Order creation: Create the production order.
3. Capacity/requirements planning.
4. Order release: Release the production order to check availability of required components and production tools.
5. Material staging: Issue material to use in production.
6. Order execution: Execute the production order.
7. Confirmations: Confirm the production order.
8. Goods receipt: Post the goods receipt.
9. Period-end closing - process cost allocation, overhead rate, Work In Progress (WIP) determination, variance calculation, and order settlement.
10. Archiving.



#### Animation: Discrete Manufacturing: Production Order Scenario

For more information on *Discrete Manufacturing: Production Order Scenario*, please view the animation in the lesson *Using Plan-to-Produce Processing* in your online course.

## MRP

MRP supports multi-level BOM component planning over a short to medium-term horizon.

This is a very intense and complex process that traditionally took a lot of resources and a long time to run.

With the power of SAP HANA, MRP now runs significantly faster. This means more MRP runs can be carried out in order to plan more frequently and with smaller batch sizes, providing the business with an accurate picture of product and component availability.

You can set up real-time alerting to highlight when stock situations need attention, with prioritization of the most critical issues, so they can be dealt with quickly.

The application makes proactive suggestions whenever there are issues with material flow to point the way to solutions.

## Available-to-Promise

Available-to-promise offers the following:

- Real-time availability checks that considers all planned and actual future orders.
- Simultaneous checks of all items in an order.
- Smart product substitution processing.
- With the power of SAP HANA, massive speed-up of processing availability checks.

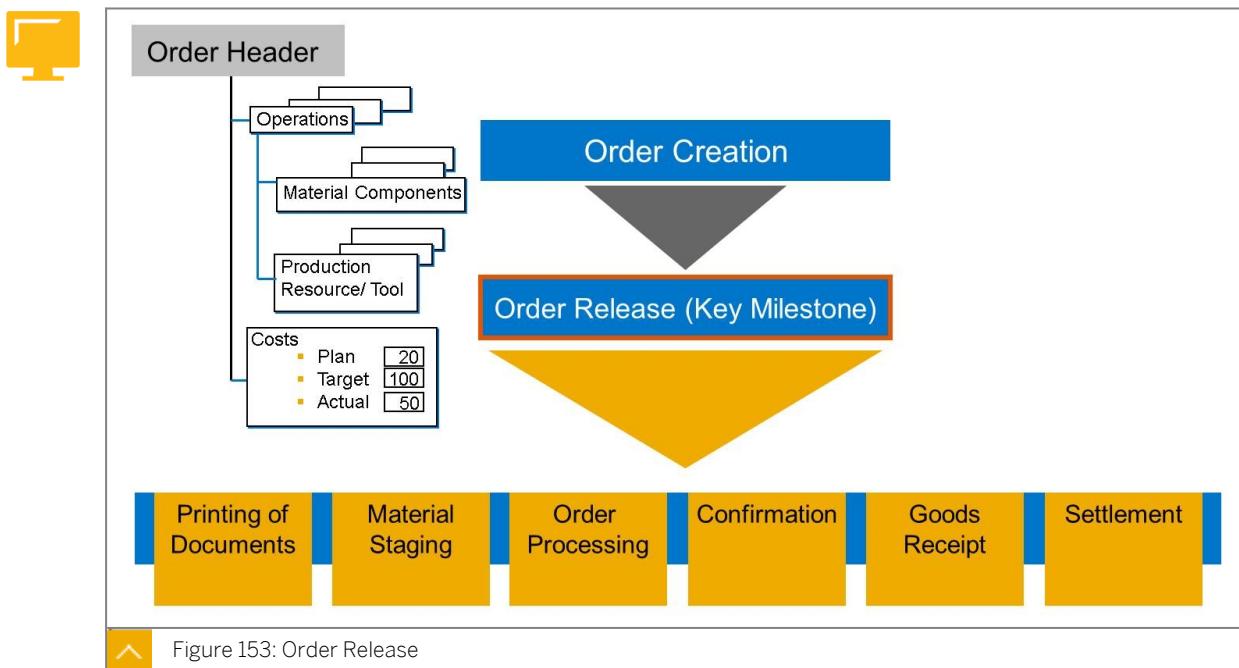
- Smart back-order processing and product allocation help to deal with conflicts when there is a low stock situation or a new product launch requires all key customers to have a fair share.

## Capacity Planning

Capacity planning supports the planning of production orders and sequencing and scheduling of actual production and assembly operations.

At the same time, resources are planned to ensure that production plans can be met and any shortages are highlighted so they can be resolved quickly.

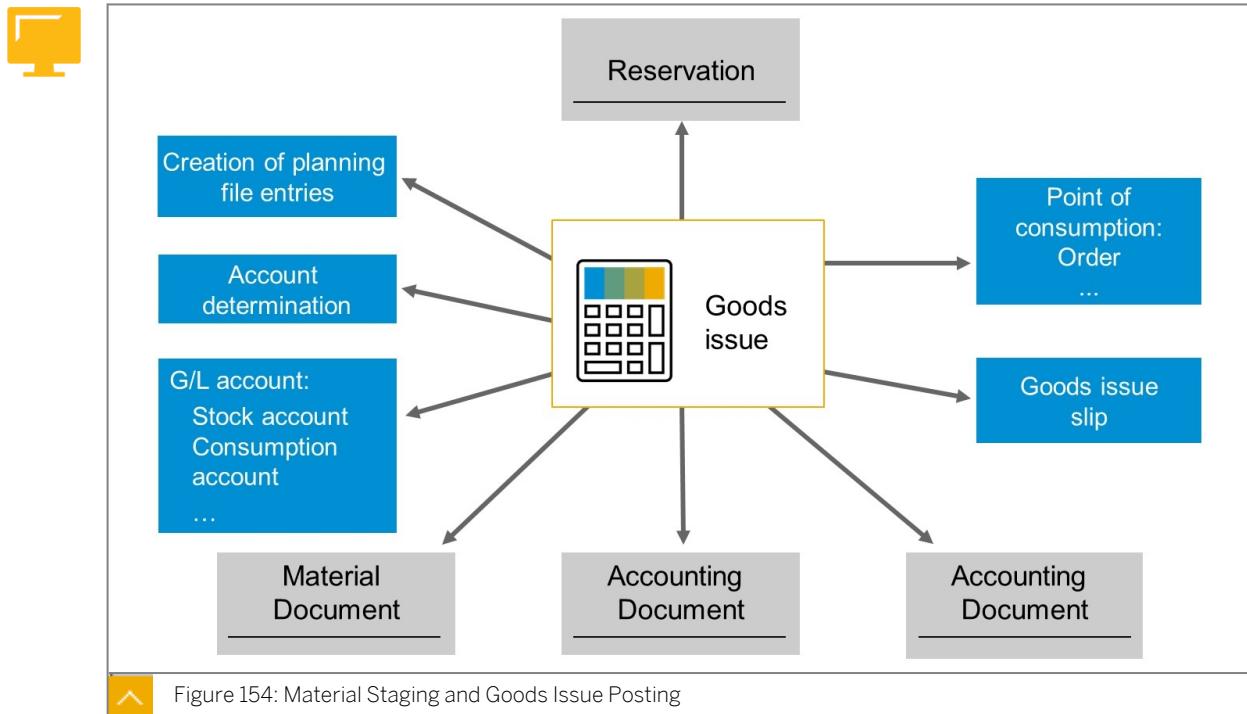
## Order Release



Order release is a key milestone in the processing of a production order. Order release is also the basis for the further processing of a production order, such as, printing order documents, withdrawing materials, and so on.

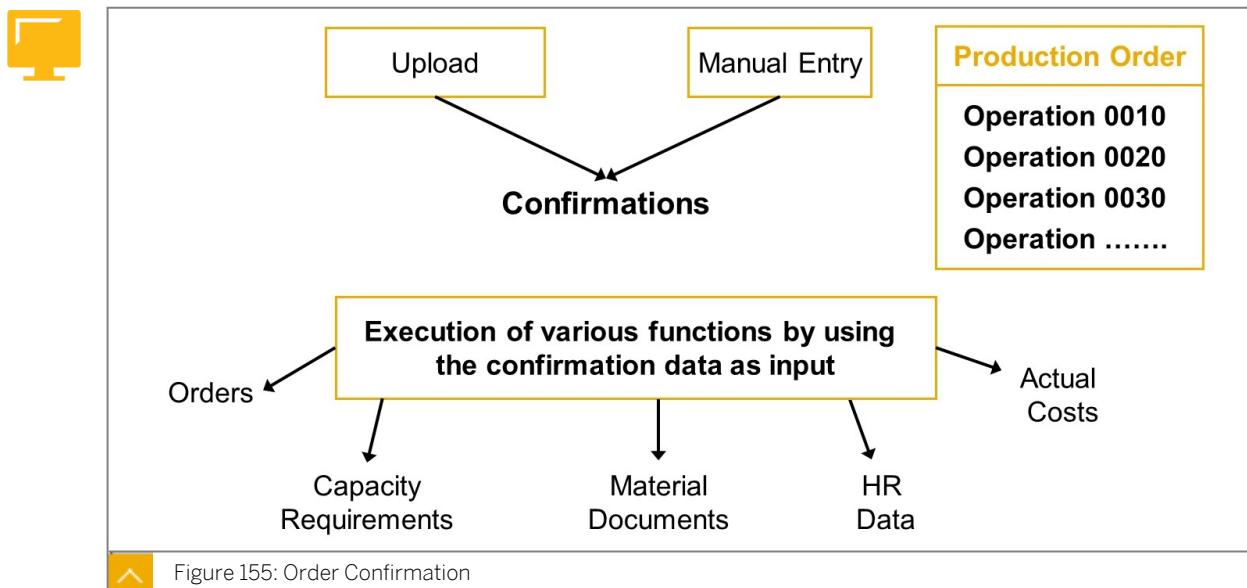
Production orders are managed by using statuses. The corresponding status is set when an order is released. An availability check can be automatically performed. You can release single operations, entire orders, or several orders simultaneously.

### Material Staging and Goods Issue Posting



Generally, component materials are made available to execute a production order. Various procedures are possible: goods issue slips, material staging lists, pick lists, and other similar documents form the basis of material withdrawal for production orders.

### Order Confirmation



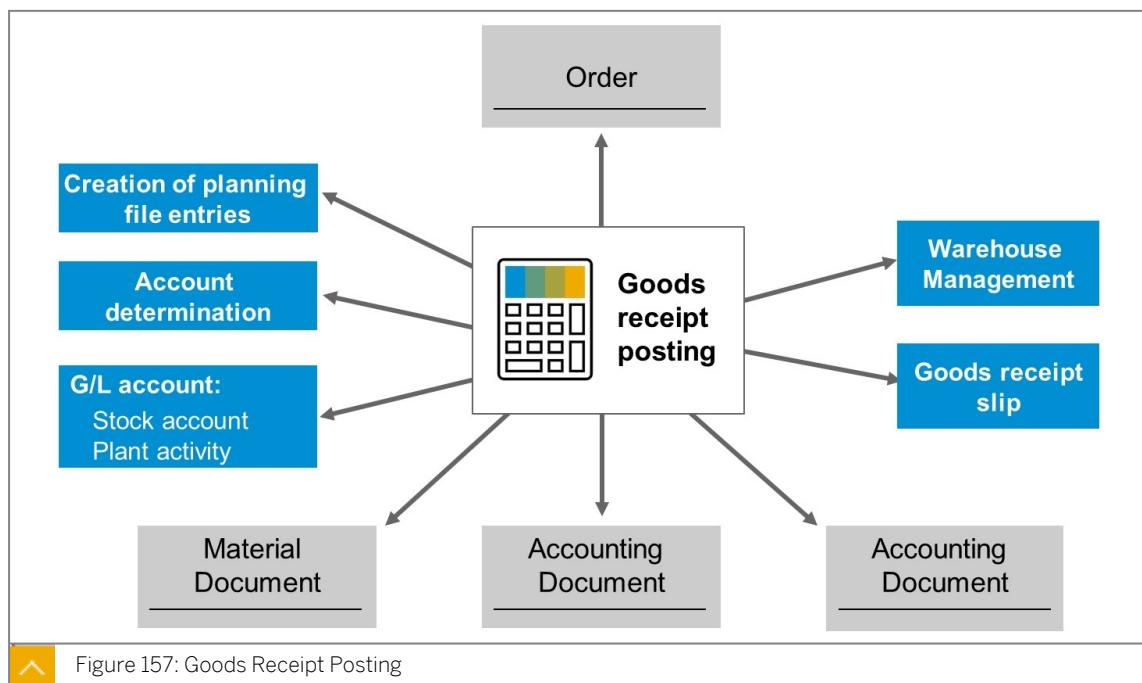


## Animation: Order Confirmation

For more information on *Order Confirmation*, please view the animation in the lesson *Using Plan-to-Produce Processing* in your online course.

Confirmations are an important basis for entering internal activities performed for the order and for the progress check. For this reason, exact real-time confirmations are of particular importance. A confirmation causes various additional functions to be executed, as shown in the figure, Order Confirmation. Confirmations can either be done manually or through the interface from a manufacturing execution system.

### Goods Receipt Posting



The goods receipt posting is executed for the stock receipt of a product produced using a production order and various different actions are triggered at the same time.

## Unit 4 Exercise 10

# Create Planned Independent Requirements (PIRs)



Simulation: Create Planned Independent Requirements (PIRs)

For more information on *Create Planned Independent Requirements (PIRs)*, please view the simulation in the lesson *Using Plan-to-Produce Processing* in your online course.

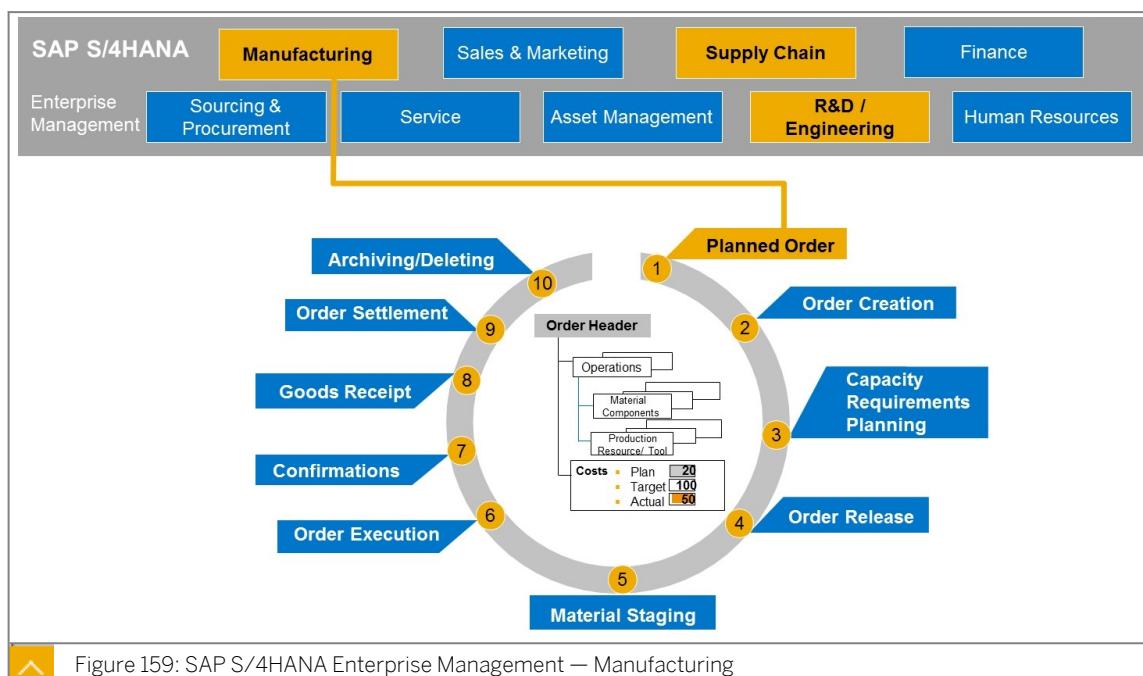


Figure 159: SAP S/4HANA Enterprise Management — Manufacturing

In the following steps, you will create Planned Independent Requirements (PIRs) and create demands for the MRP live planning run that is executed in the next exercise.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Log on to the SAP Fiori launchpad home page and open the SAP Fiori app *Maintain PIRs*. Select your end item material *T-F1##* with Material Description **Extreme Group ##**. Maintain PIRs of 10 pieces starting in the second week (after the current week) for the next 4 weeks. Set the version to **Active**.

2. Open the SAP Fiori app *Display PIRs*.

Enter your material **T-F1##** for plant **1010**.

This is the GUI-like visualization of the PIRs.

## Unit 4 Solution 10

# Create Planned Independent Requirements (PIRs)



Simulation: Create Planned Independent Requirements (PIRs)

For more information on *Create Planned Independent Requirements (PIRs)*, please view the simulation in the lesson *Using Plan-to-Produce Processing* in your online course.

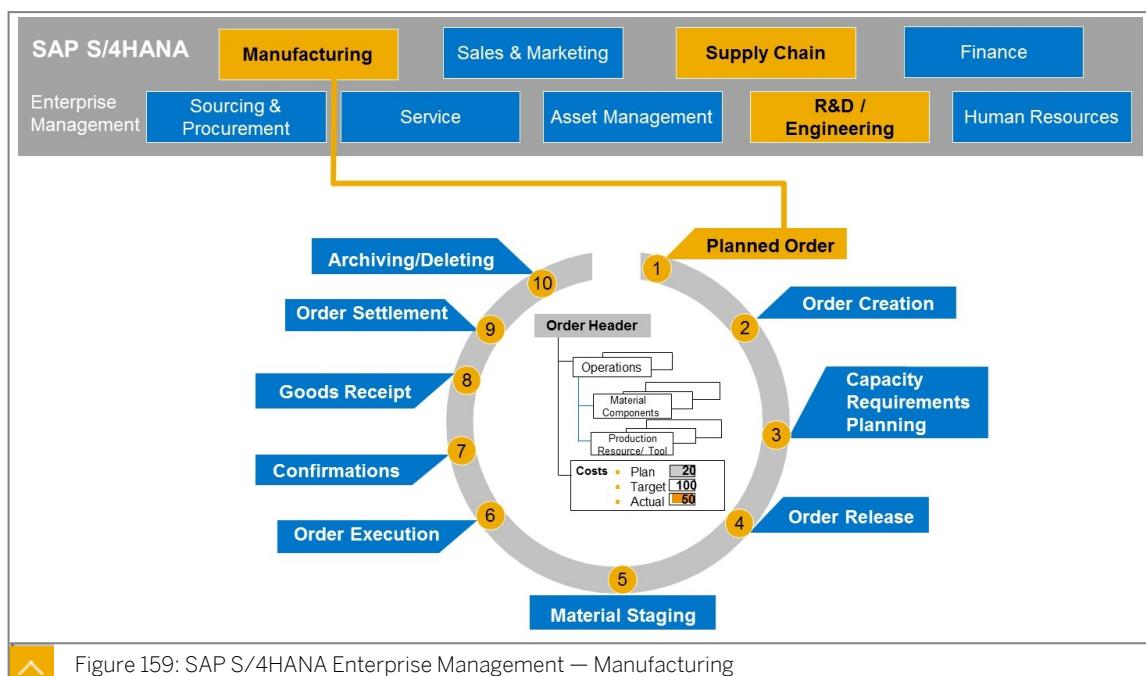


Figure 159: SAP S/4HANA Enterprise Management — Manufacturing

In the following steps, you will create Planned Independent Requirements (PIRs) and create demands for the MRP live planning run that is executed in the next exercise.

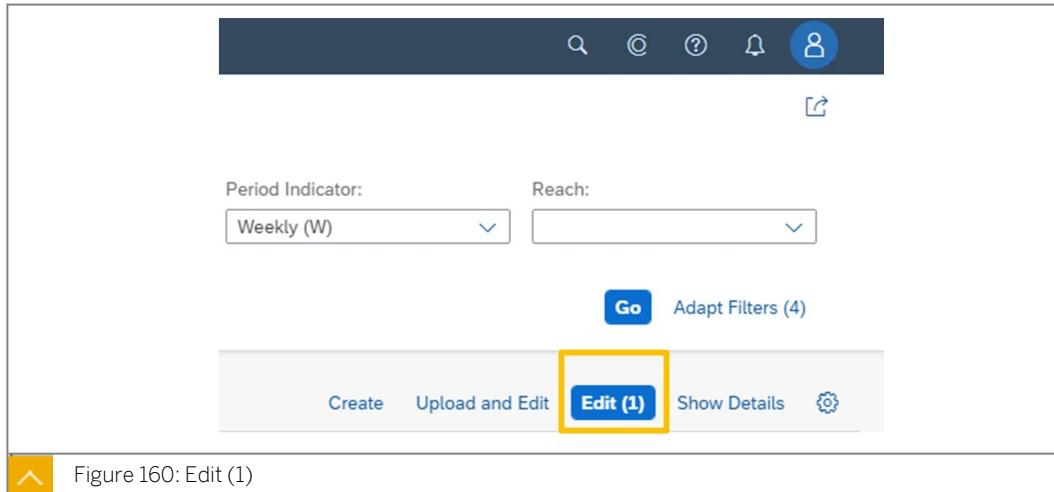


Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Log on to the SAP Fiori launchpad home page and open the SAP Fiori app *Maintain PIRs*. Select your end item material *T-F1##* with Material Description **Extreme Group ##**. Maintain PIRs of 10 pieces starting in the second week (after the current week) for the next 4 weeks. Set the version to **Active**.

- Start the *Maintain PIRs* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.
- Select your item material **T-F1##** (with Material Description **Extreme Group ##**) from the list.
- Choose *Edit (1)* in the top right side of the screen.



- Maintain PIRs of **10** pieces, starting in the second week (after the current week) for the following four weeks.
- At the top left side of the screen, toggle the switch *Version is Ac...* (Version is Active) to **Yes**.



- In the bottom part of the screen, choose *Save*.

- Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

## 2. Open the SAP Fiori app *Display PIRs*.

Enter your material **T-F1##** for plant **1010**.

This is the GUI-like visualization of the PIRs.

- Start the *Display PIRs* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.
- Enter your material **T-F1##** for plant **1010** and choose *Enter*.

Planned Independent Requirements for

Material:  

Product group:

Requirements Plan:

Ext. Req. Plan:

MRP Area:

Plant: 1010

 Figure 162: PIR

You can see the *Planning Table for PIRs*.

- c) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.



## Unit 4 Exercise 11

### Execute the MRP Live Planning Run



Simulation: Execute the MRP Live Planning Run

For more information on *Execute the MRP Live Planning Run*, please view the simulation in the lesson *Using Plan-to-Produce Processing* in your online course.

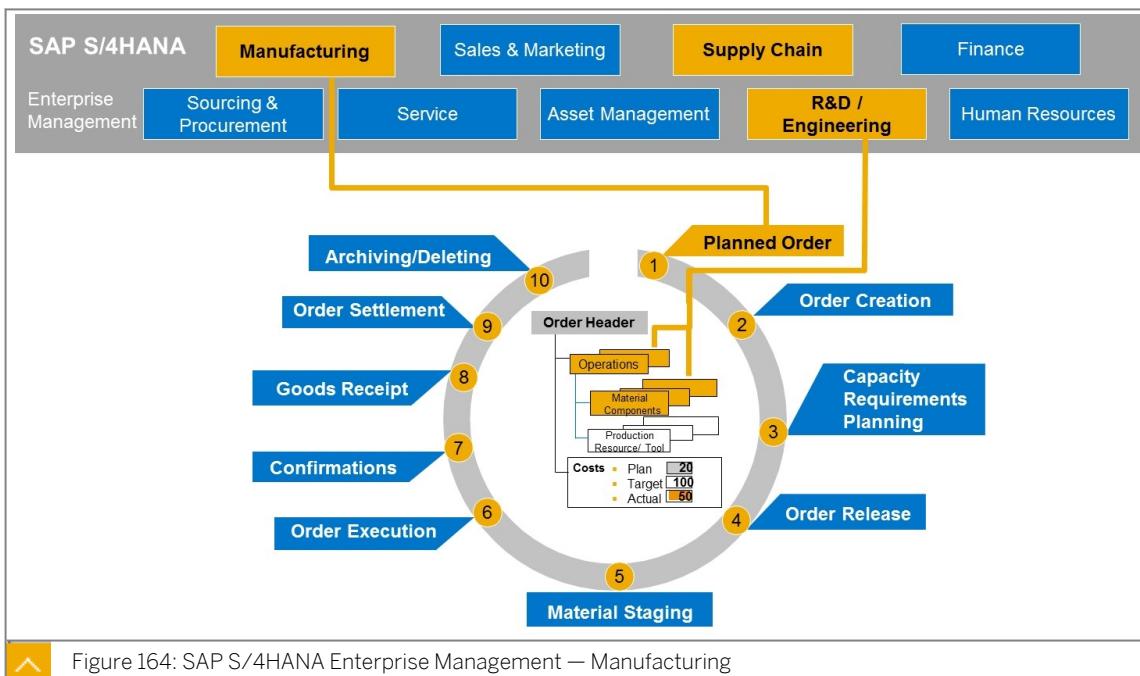


Figure 164: SAP S/4HANA Enterprise Management – Manufacturing

Check the MRP Live planning run in the SAP S/4HANA Enterprise Management system.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Log on to the SAP Fiori launchpad home page, open the SAP Fiori app *Display Multilevel BOM Explosion*, and display the BOM (Bill of Material) for the Material **T-F1##**, the Plant **1010**, the BOM Application **PP01**, and a required quantity of **10**.

Which components and raw materials are required for the production of the material at which level?

Explosion level	Component number
.	
..	

Explosion level	Component number
..	
.	
..	
..	
.	

2. Open the SAP Fiori app *Display Routing* for the Material **T-F1##** at Plant **1010**.

Which operations (make a note of the operation numbers and descriptions) are executed at which work centers?

Operation	Work center	Description
0010		
0020		
0030		

3. Log on to the SAP Fiori launchpad home page and open the SAP Fiori app *Schedule MRP Runs*.

In the app, create a new job with description **MRP Live Group ##**.

Plan all materials for plant **1010** and MRP controller **0##**. Do not change the control parameters.

4. Choose the app *Monitor Stock/Requirements List* for your Material **T-F1##** and Plant **1010** to analyze your planning result.

## Unit 4 Solution 11

### Execute the MRP Live Planning Run



Simulation: Execute the MRP Live Planning Run

For more information on *Execute the MRP Live Planning Run*, please view the simulation in the lesson *Using Plan-to-Produce Processing* in your online course.

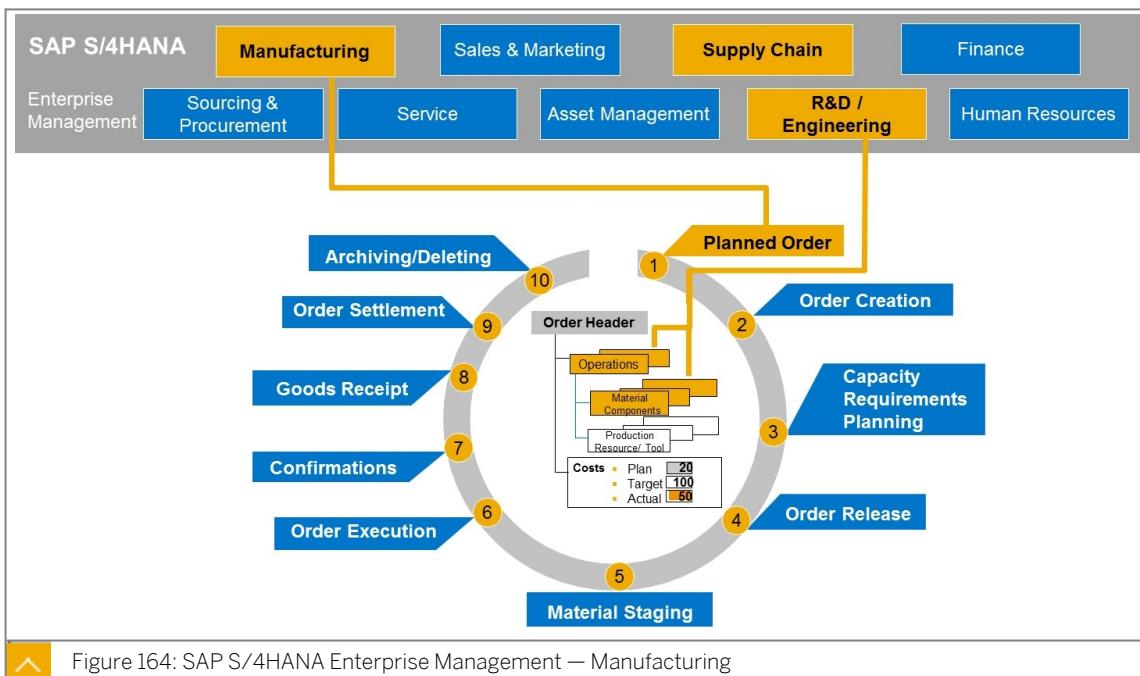


Figure 164: SAP S/4HANA Enterprise Management – Manufacturing

Check the MRP Live planning run in the SAP S/4HANA Enterprise Management system.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Log on to the SAP Fiori launchpad home page, open the SAP Fiori app *Display Multilevel BOM Explosion*, and display the BOM (Bill of Material) for the Material **T-F1##**, the Plant **1010**, the BOM Application **PP01**, and a required quantity of **10**.

Which components and raw materials are required for the production of the material at which level?

Explosion level	Component number
.	
..	

Explosion level	Component number
..	
.	
..	
..	
.	

- a) Start the *Display Multilevel BOM Explosion* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.
- b) Enter Material **T-F1##**, the Plant **1010**, the BOM Application **PP01**, and the required quantity (Required qty:) **10**.
- c) Choose *Execute*.

Confirm any messages with *Continue*.

Explosion level	Component number
. 1 (first level)	T-S1##
.. 2 (second level)	T-R2##
.. 2 (second level)	T-R3##
. 1 (first level)	T-S2##
.. 2 (second level)	T-R4##
.. 2 (second level)	T-R5##
. 1 (first level)	T-R1##

- d) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

2. Open the SAP Fiori app *Display Routing* for the Material **T-F1##** at Plant **1010**.

Which operations (make a note of the operation numbers and descriptions) are executed at which work centers?

Operation	Work center	Description
0010		
0020		
0030		

- a) Start the *Display Routing* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.

- b) Enter Material **T-F1##** and Plant **1010**.
- c) For the *Key date*, enter today's date.
- d) Choose *Operations*.
- e) View the *Operation* overview.

Operation	Work center	Description
0010	T-A##	Assembly
0020	T-T##	Testing
0030	T-T##	Posting goods receipt

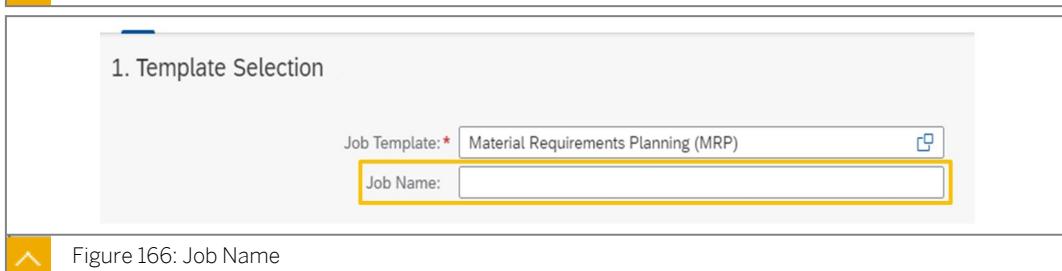
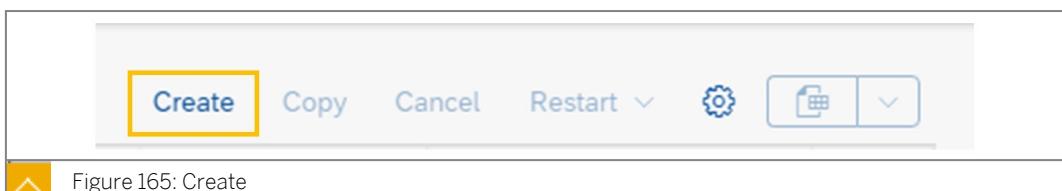
- f) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

3. Log on to the SAP Fiori launchpad home page and open the SAP Fiori app *Schedule MRP Runs*.

In the app, create a new job with description **MRP Live Group ##**.

Plan all materials for plant **1010** and MRP controller **0##**. Do not change the control parameters.

- a) Start the *Schedule MRP Runs* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.
- b) To create a new job, in the app, choose **Create** and change the Job Name (description) to **MRP Live Group ##**.



- c) Choose Step 2.
- d) Choose 2. *Scheduling Options* and select the *Start Immediately* checkbox.

## 2. Scheduling Options

Start Immediately:

Start:



Figure 167: Edit Scheduling Options

- e) Choose Step 3.
- f) Enter **Plant 1010** and **MRP Controller 0##**.

Do not change the control parameters.

## 3. Parameters

### Parameter Section

Planning Scope (Define at least one selection criterion.)

Plant:

Material:

Product group:

MRP Controller:

Material Scope:

Figure 168: Planning Scope

- g) Choose *Schedule* in the bottom part of the screen.

- h) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

4. Choose the app *Monitor Stock/Requirements List* for your Material **T-F1##** and Plant **1010** to analyze your planning result.

- a) Start the *Monitor Stock/Requirements List* app (Group: S4HOO - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.

- b) Enter Material **T-F1##** for Plant **1010** and choose *Enter*.

- c) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

## Unit 4 Exercise 12

### Execute a Discrete Production



Simulation: Execute a Discrete Production

For more information on *Execute a Discrete Production*, please view the simulation in the lesson *Using Plan-to-Produce Processing* in your online course.

Produce a finished product T-F1## in plant 1010 by using production orders.

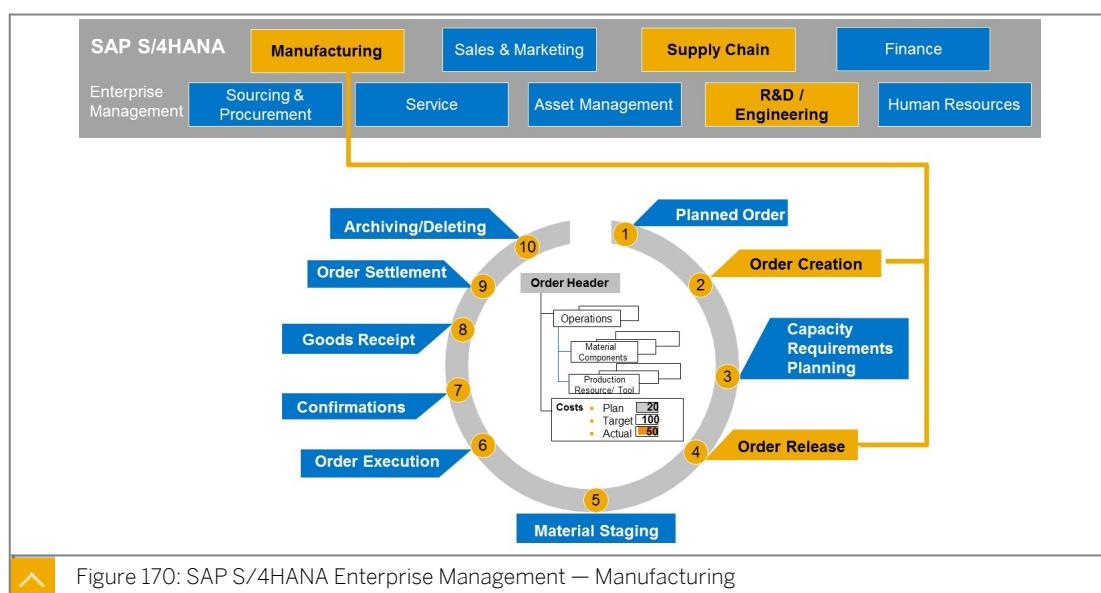


Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Convert a planned order (10 PC) you created in the MRP exercise for Material **T-F1##**, Plant **1010**, into a *Production Order* (10 PC) using the *Monitor Material Coverage Net Segments* app.

Write down the number of your Production Order:

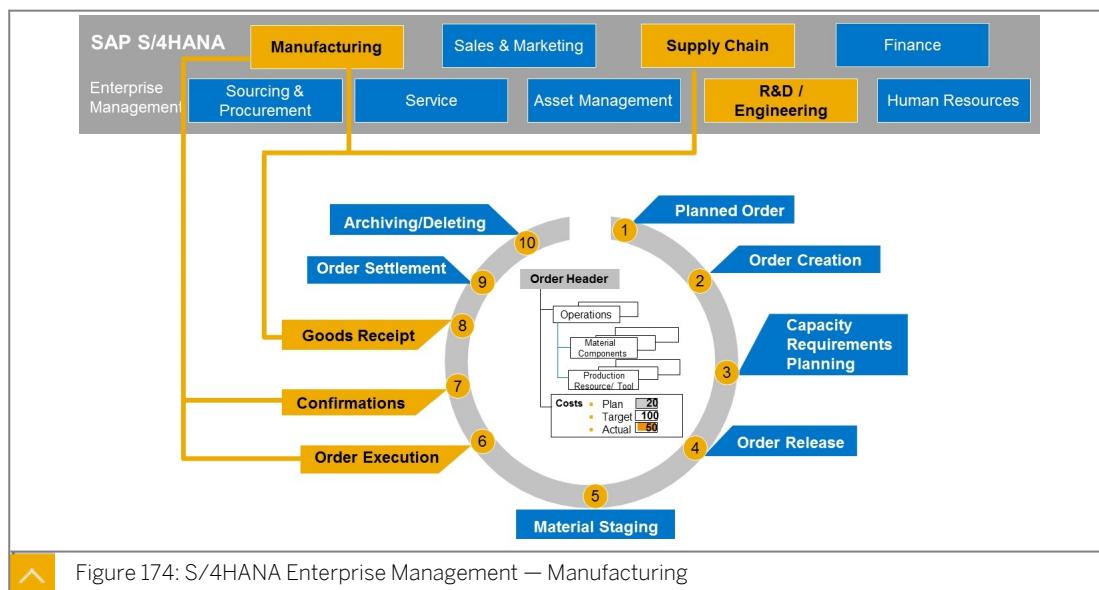


Hint:

If you have no *Area of Responsibility* assigned yet, the system will ask you for your plant number and MRP Controller number.

Select plant 1010 and **MRP Controller 0##**.

2. Release Production Order using the *Change Production Order* app .
  3. Display the status of your production order using the app *Display Production Order*.  
Write down the status of your production order.
- 
4. Use the *Post Goods Movement* app to execute material staging for the production order by posting the goods issues for its components.  
Write down the material document number after posting.



5. Along with the production process, confirm the executed operations of the production order by using the *Confirm Production Order Operation* app.
6. Due to the control key in the last operation of your routing, the goods receipt has been posted automatically for your production order.  
Check if the posting has been executed by using the *Monitor Stock/Requirements List* app.

# Unit 4

## Solution 12

### Execute a Discrete Production



Simulation: Execute a Discrete Production

For more information on *Execute a Discrete Production*, please view the simulation in the lesson *Using Plan-to-Produce Processing* in your online course.

Produce a finished product T-F1## in plant 1010 by using production orders.

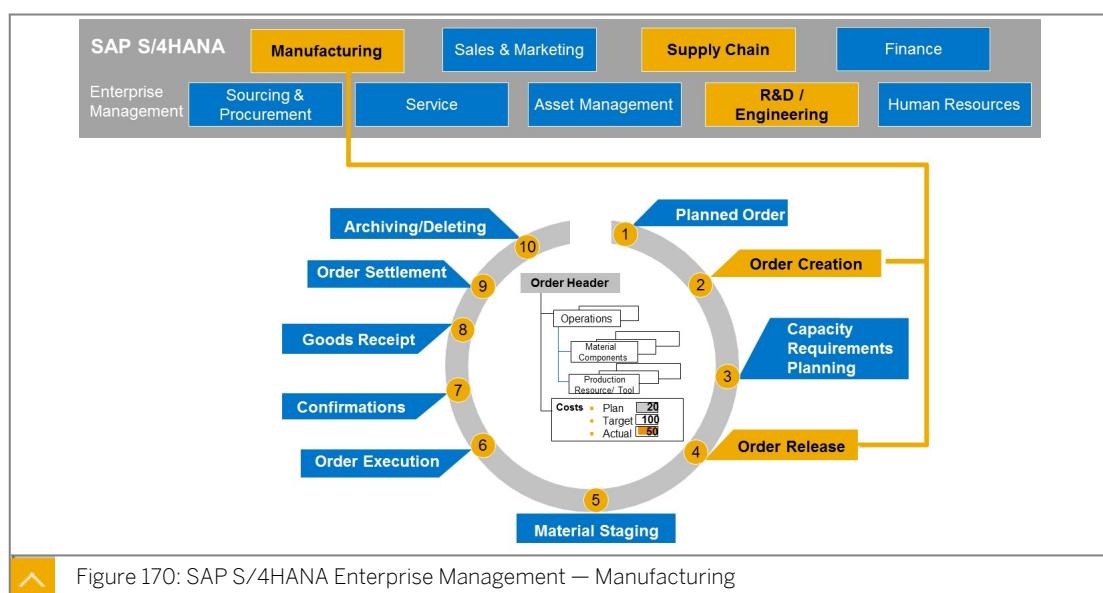


Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Convert a planned order (10 PC) you created in the MRP exercise for Material **T-F1##**, Plant **1010**, into a *Production Order* (10 PC) using the *Monitor Material Coverage Net Segments* app.

Write down the number of your Production Order:



Hint:

If you have no *Area of Responsibility* assigned yet, the system will ask you for your plant number and MRP Controller number.

Select plant 1010 and **MRP Controller 0##**.

- Start the *Monitor Material Coverage Net Segments* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.
- In the *Material List*, select the checkbox for Material **T-F1##**, and choose *Manage Materials*.



Figure 171: Manage Materials

- Choose the first planned order (*PldOrd*).
- Choose Actions **Convert**.

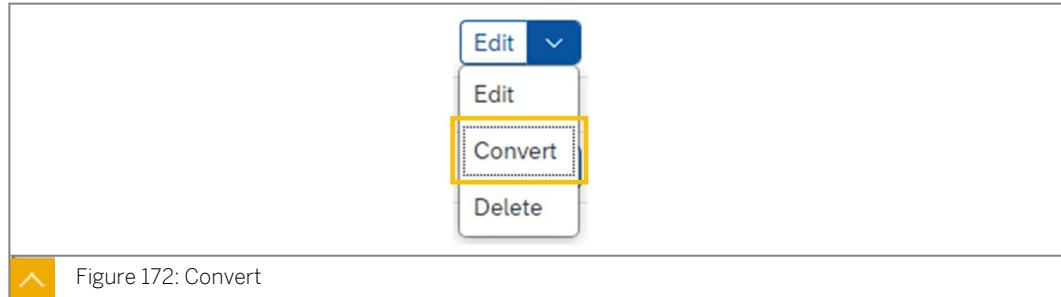


Figure 172: Convert

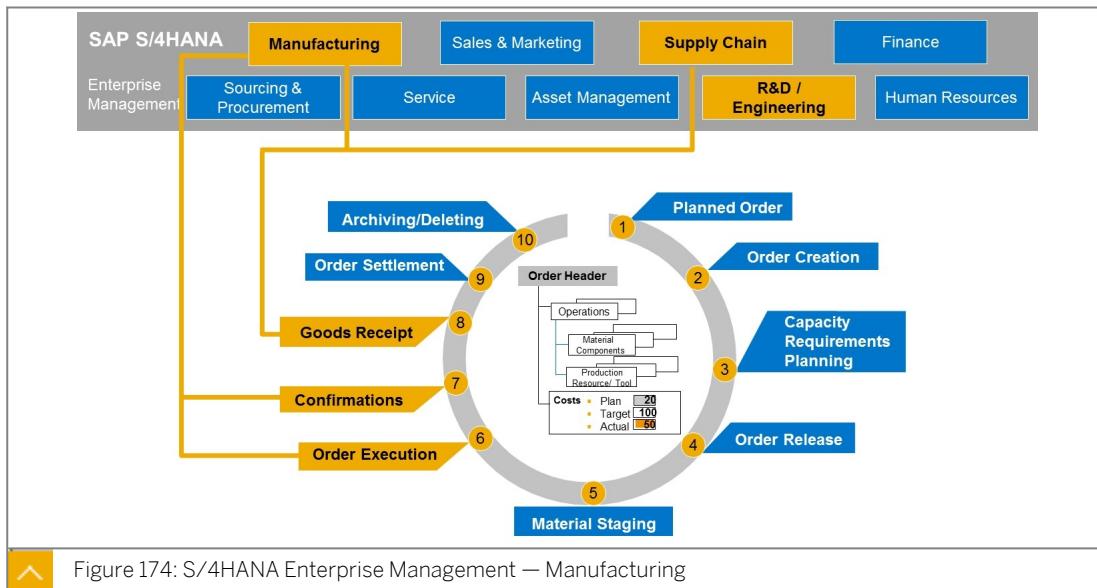
- Choose *Convert to Production Order*, and then choose *OK*.
- Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.
- Start the *Monitor Stock / Requirements List* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.
- Enter Material **T-F1##** for Plant **1010** and choose *Enter*.
- Write down the number of your production order (MRP element *PrdOrd*) in the space provided above.
- Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.

- Release Production Order using the *Change Production Order* app .
  - Start the *Change Production Order* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.
  - Enter the number of your Production Order.
  - Choose *Display overview*.



- d) Choose **Enter**.
  - e) Choose **Release Order** on the top left of the screen.
  - f) Choose **Save** on the bottom right of the screen.
  - g) Confirm any messages with **YES**.
  - h) System message: Order number ..... saved.
  - i) Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.
  - j) Choose **OK**.
3. Display the status of your production order using the app *Display Production Order*. Write down the status of your production order.
- 
- a) Start the *Display Production Order* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.
  - b) Enter the number of your Production Order.
  - c) Choose **Enter**.
  - d) Write down the status of your production order:  
*REL PRT PRC MACM SETC*  
 or  
*REL PRC MACM SETC*
  - e) Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.

4. Use the *Post Goods Movement* app to execute material staging for the production order by posting the goods issues for its components.  
 Write down the material document number after posting.
-



- a) Start the *Post Goods Movement* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.

- b) Make the following entries on the selection screen and choose *Enter*:

Field	Value
Goods Issue, Order	Your production order number

Figure 175: Selection Screen

- c) Choose *Enter*.
- d) Set all the *Item OK* indicators for the three assemblies, and choose *Check* on the bottom right of the screen to confirm that the document is okay.
- e) Choose *Post* on the bottom right of the screen to finally post Goods Issue for the Production Order.
- f) System message: Material document ..... posted.
- g) Write down the material document number reported by the system.

- h) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

5. Along with the production process, confirm the executed operations of the production order by using the *Confirm Production Order Operation* app.

- a) Start the *Confirm Production Order Operation* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.

- b) On the *Enter Time Ticket for Production Order* screen, make the following entries and confirm with *Enter*:

Field	Value
Order	Your production order number
Operation	0010

Figure 176: Enter Time Ticket for Production Order Screen

- c) Make the following entries:

Field	Value
Confirm. type	<b>Automatic final confirmation</b>
Yield	The full order quantity of your order

Figure 177: Final Confirmation

- d) Choose *Enter*.
- e) Choose *Save* on the bottom right of the screen to confirm the operation.
- f) System message: Confirmation of order ..... saved.
- g) On the *Enter Time Ticket for Production Order* screen, make the following entries and confirm with *Enter*:

Field	Value
Order	Your production order number

Field	Value
Operation	0020

Other Confirmation Goods Movements Actual Data More ▾

Confirmation:		Material:	
Order:		Mat.Descr.:	
Operation:		Sequence:	
Suboperation:		Split:	
Capacity Cat.:		Plant:	
Work Center:			

 Figure 178: Enter Time Ticket for Production Order Screen

h) Make the following entries:

Field	Value
Confirm. type	<b>Automatic final confirmation</b>
Yield	The full order quantity of your order

Confirm.type: **Automatic final confirmation**   Clear open reservations

 Quantities \_\_\_\_\_

To Be Confirmed	Unit
Yield:	
Scrap:	
Rework:	
Reason for Var.:	

 Figure 179: Final Confirmation

- i) Choose *Enter*.
- j) Choose *Save* on the bottom right of the screen to confirm the operation.
- k) System message: Confirmation of order ..... saved.
- l) On the *Enter Time Ticket for Production Order* screen, make the following entries and confirm with *Enter*:

Field	Value
Order	Your production order number
Operation	0030

Figure 180: Enter Time Ticket for Production Order Screen

m) Make the following entries:

Field	Value
Confirm. type	<b>Automatic final confirmation</b>
Yield	The full order quantity of your order

Figure 181: Final Confirmation

n) Choose *Enter*.

o) Choose *Save* on the bottom right of the screen to confirm the operation.

p) System message: Confirmation saved (Goods movements: 1, failed: 0).

q) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

6. Due to the control key in the last operation of your routing, the goods receipt has been posted automatically for your production order.

Check if the posting has been executed by using the *Monitor Stock/Requirements List* app.

a) Start the *Monitor Stock/Requirements List* app (Group: S4H00 - Plan-to-Produce Processing) from the SAP Fiori launchpad home page.

b) Make the following entries and choose *Enter*:

Field	Value
Material	<b>T-F1##</b>

Field	Value
Plant	1010

c) Choose *Enter*:

d) Your production order is no longer displayed on the list.

Instead, you see that stock has been built up (MRP Element: Stock / Available Qty: > 0).

e) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.



## LESSON SUMMARY

You should now be able to:

- Use Plan-to-Produce Processing

# Unit 4

## Lesson 3

# Using Order-to-Cash Processing



## LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Use Order-to-Cash Processing

## Order-to-Cash Processing

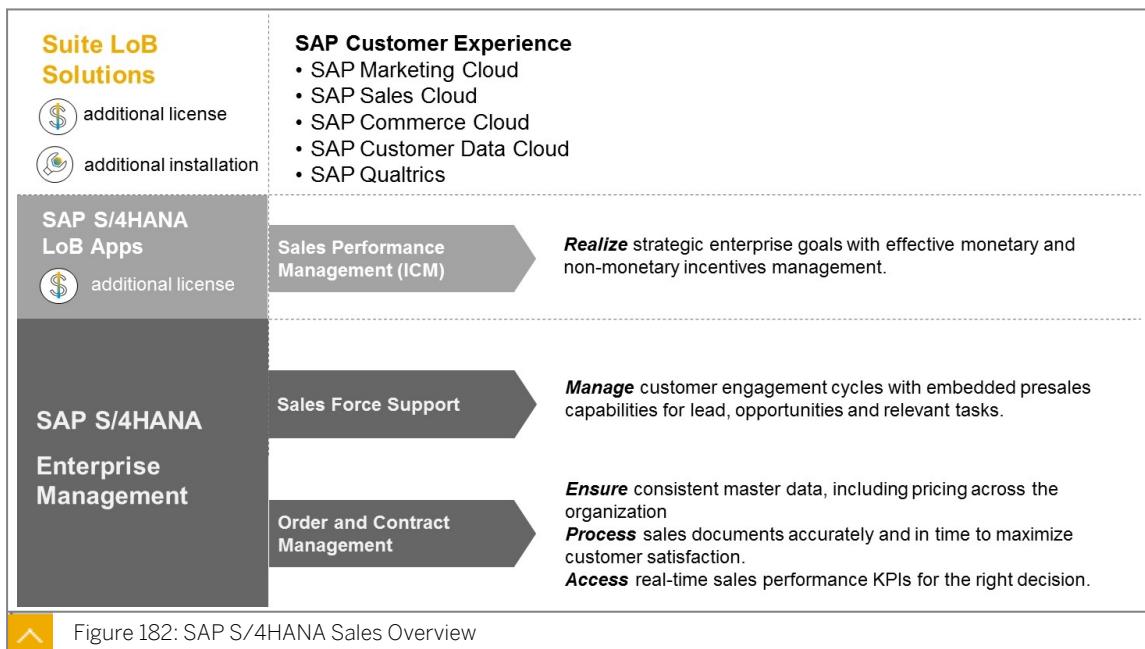


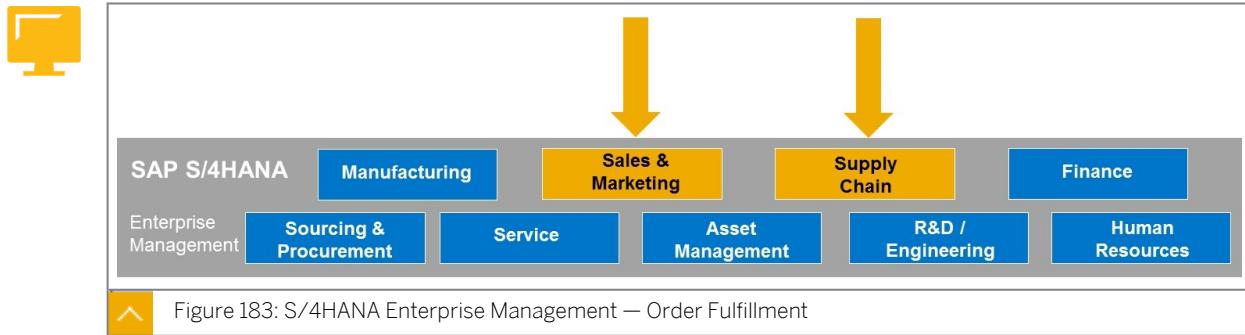
Figure 182: SAP S/4HANA Sales Overview

Sales supports your order and contract management, including sales master data, pricing, sales quotations, sales contracts, sales order management, billing, and sales rebates. You can create incentives for your sales agents. You can handle claims and process returns and refunds for your customers. You can monitor and analyze your sales business processes. Additionally, you can use basic functions, such as the availability check and output management.

You can use sales force support for your pre-sales life cycle, from an appointment, through to the creation of leads and opportunities. Sales force support includes features for activities, opportunities, and sales lead management.

Maximize revenue with order and contract management, drive sales performance, and support your sales force and sales managers.

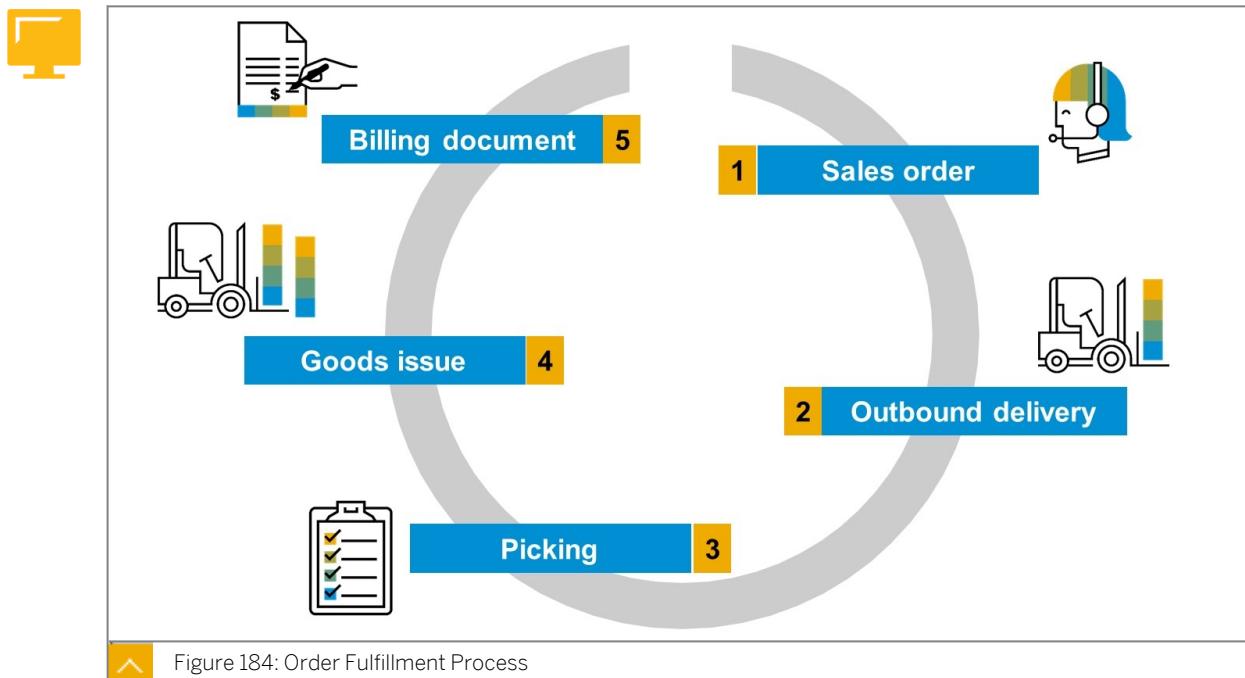
## Order Fulfillment



Your enterprise plans to implement SAP S/4HANA Enterprise Management and wants to know how to execute logistics processes in this environment.

You are especially interested in procurement and inventory management, manufacturing (production), and order fulfillment.

### Order Fulfillment Process



When a customer orders goods or services, a sales order is created to represent this process step.

The sales order contains all the relevant information to process the customer request throughout the whole process cycle.

The system automatically copies data from master records and control tables that have been previously prepared.

Outbound deliveries are normally created with reference to one or more sales orders. In that way, the relevant information (such as, materials and quantities) can be copied from the sales order to the delivery.

Sales order management includes the following processes and basic functions:

1. Sales order: The sales order can adopt information from the pre-sales documents (a quotation or an inquiry). Pre-sales activities can be used as a reference during the creation

of a sales order. Sales scheduling agreements or sales contracts (long-term sales agreements) can also be created with reference to a sales order and are supported by the sales process steps. During the creation of the sales order, the availability of the material is checked to confirm the customer's requested delivery date.

2. Outbound delivery: An outbound delivery is the basis for a process where the goods are physically moved, as well as for the posting of the goods issue. Picking can be fulfilled using the warehouse management system, and transportation is planned and carried out.
3. Picking: Take goods from a storage location and stage the goods in a picking area, where the goods are prepared for shipping.
4. Goods issue: Warehouse stock for the delivery is reduced and the value of the stock is posted to the balance sheet account in inventory accounting.
5. After the distribution process has been completed, you can create the billing documents. This can be done with reference to one or more outbound deliveries when selling physical products or with reference to sales orders when selling services. In both cases, the relevant information is copied from the preceding documents into the billing document.



#### Animation: Order Fulfillment Process

For more information on *Order Fulfillment Process*, please view the animation in the lesson *Using Order-to-Cash Processing* in your online course.

### Delivery Process

Logistics execution is the physical movement of goods, from the procurement of raw material through to the shipment of the sales item. Shipping is an important part of the logistics chain and a subsequent activity of the core sales process.

The outbound delivery document is a central object of the goods issue process and is used to support the delivery process. Processes supported include all shipping activities, such as, picking, packing, transportation, and goods issue. During the outbound delivery process, shipping and planning information is recorded, the status of shipping activities is monitored, and the data accumulated during shipping processing is documented. Shipping activities are initiated when the outbound delivery is created. Data that is generated during shipping processing is included in the delivery.

Outbound deliveries can be created automatically or manually using work-lists. These deliveries can include complete or partial orders or order combinations. Outbound deliveries can be combined to form a single group of deliveries.

Warehouse and sales overview reports allow you to monitor created outbound deliveries and outstanding sales activities.

### Picking the Delivery

The picking process involves taking goods from a storage location and staging the goods in a picking area where the goods will be prepared for shipping. A picking status is recorded in each delivery item for the purpose of scheduling and monitoring. This status indicates where the item is in the picking procedure.

For a goods issue to be posted, the delivery quantity must equal the picking quantity in the outbound delivery. This prerequisite requirement is included in the standard system settings.

## Goods Issue Posting

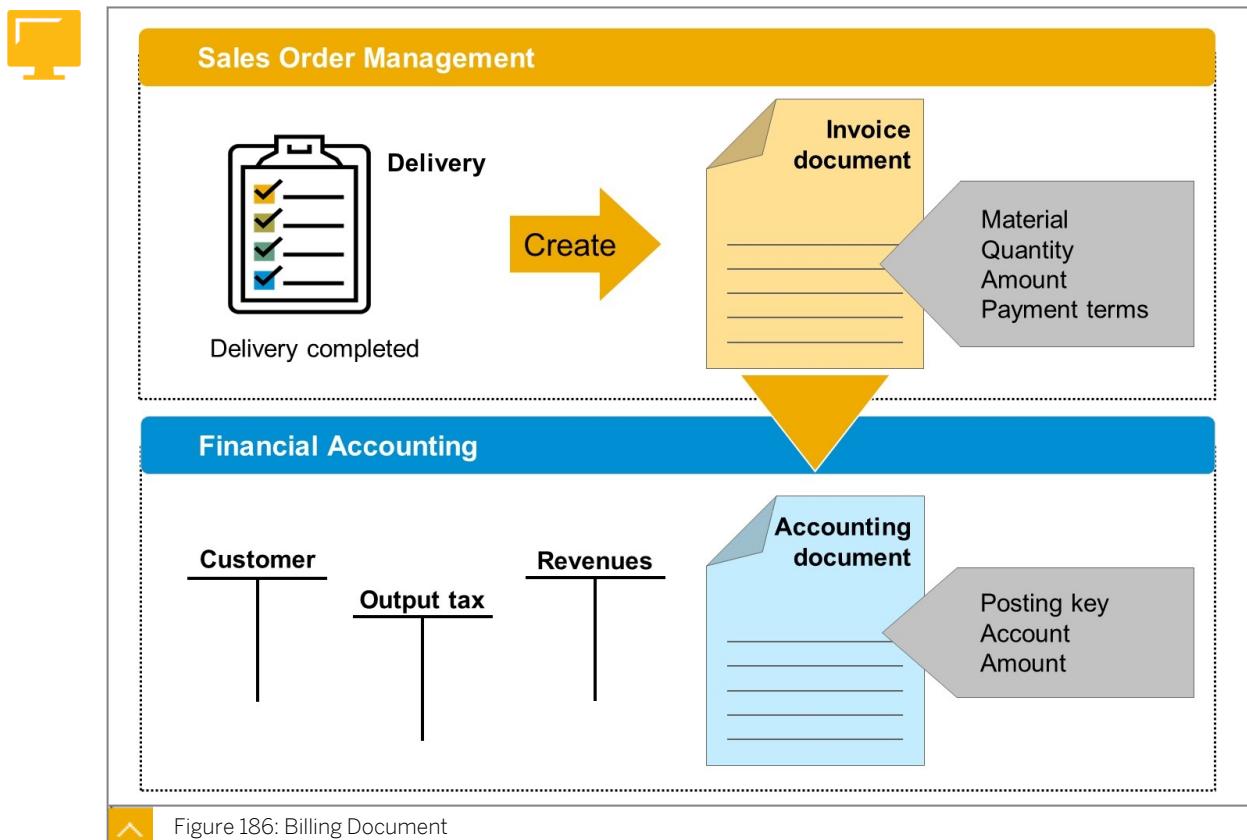
The outbound delivery forms the basis of the goods issue posting. The data required for the goods issue posting is copied from the outbound delivery to the goods issue document. The goods issue document cannot be changed manually. Any changes must be made in the outbound delivery itself. After the goods issue is posted for an outbound delivery, the scope for changing the delivery document is very limited. This prevents any discrepancies between the goods issue document and the outbound delivery. In this way, you can be sure that the goods issue document is an accurate reflection of the outbound delivery.

When you post a goods issue for an outbound delivery, the following functions are carried out:

- Warehouse stock of the material is reduced by the delivery quantity.
- Value changes are posted to the balance sheet account in inventory accounting.
- Requirements are reduced by the delivery quantity.
- The serial number status is updated.
- Goods issue posting is automatically recorded in the document flow.
- Stock determination is executed for the vendor's consignment stock.

## Billing Documents

Billing represents the final processing stage for a business transaction in sales order processing.



Billing is integrated into the organizational structures, just like all parts of sales order processing in SAP S/4HANA. You can assign a specific sales organization, a distribution

channel, and a division to the billing transactions. The organizational structures of the accounting department include the company codes and the sales organizations assigned to the company codes. These are important for the interface between billing and financial accounting.

### Billing and Financial Accounting

The system automatically posts billing amounts to the appropriate accounts by means of account determination. Account determination controls the posting of billing amounts to the appropriate general ledger accounts.

### Document Flow

Sales documents form part of a chain of interrelated documents displayed in a document flow. A document flow records each activity executed during the processing of the sales document, and includes activities resulting from various interactions with customers.

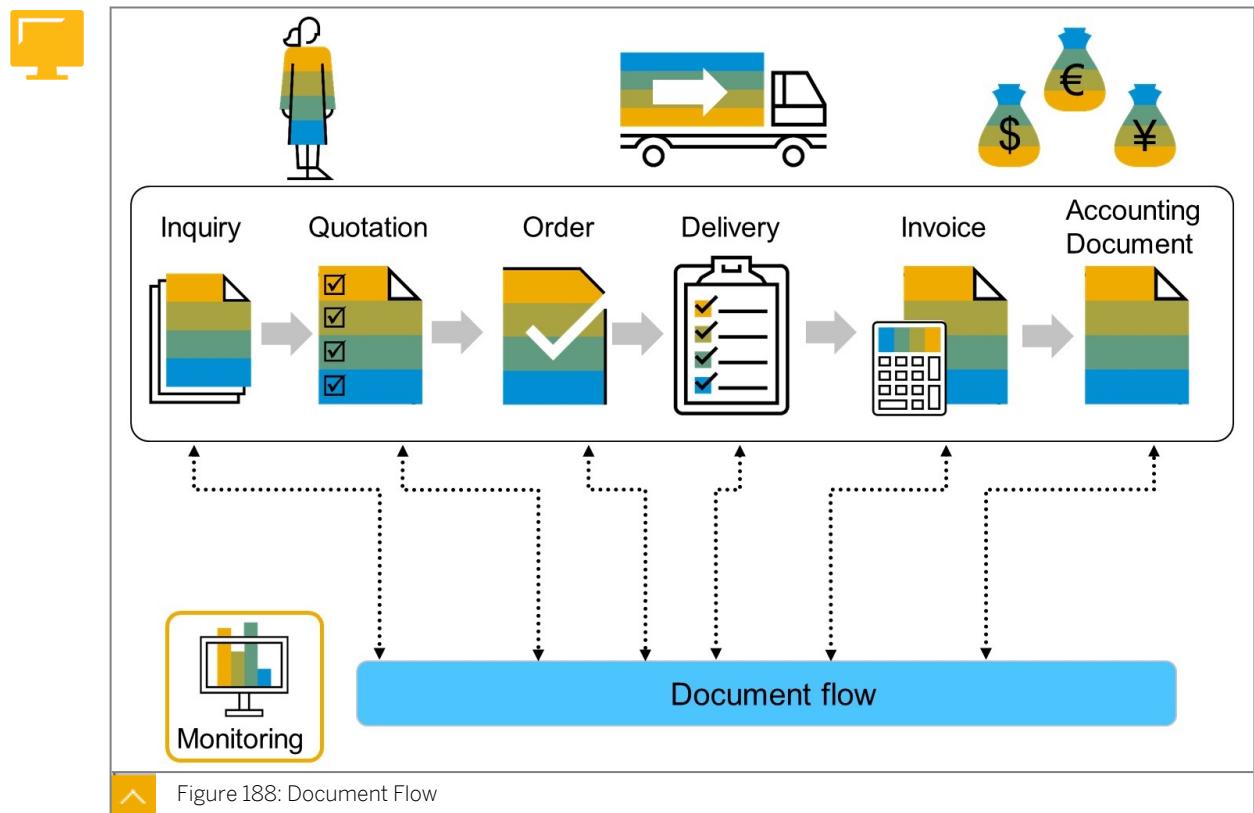
An example of a document flow is as follows:

1. A customer's telephone inquiry is recorded in the system.
2. The customer requests a quotation and a quote is created referencing the inquiry.
3. The customer later places an order based on the quotation, and a sales order is created with reference to the quotation.
4. The goods are shipped.
5. An invoice is issued to the customer.
6. An accounting document is created.



#### Animation: Document Flow

For more information on *Document Flow*, please view the animation in the lesson *Using Order-to-Cash Processing* in your online course.



The flow of data from one document to another reduces manual activity and makes problem resolution easier.



# Unit 4

## Exercise 13

### Create a Sales Order



Simulation: Create a Sales Order

For more information on *Create a Sales Order*, please view the simulation in the lesson *Using Order-to-Cash Processing* in your online course.

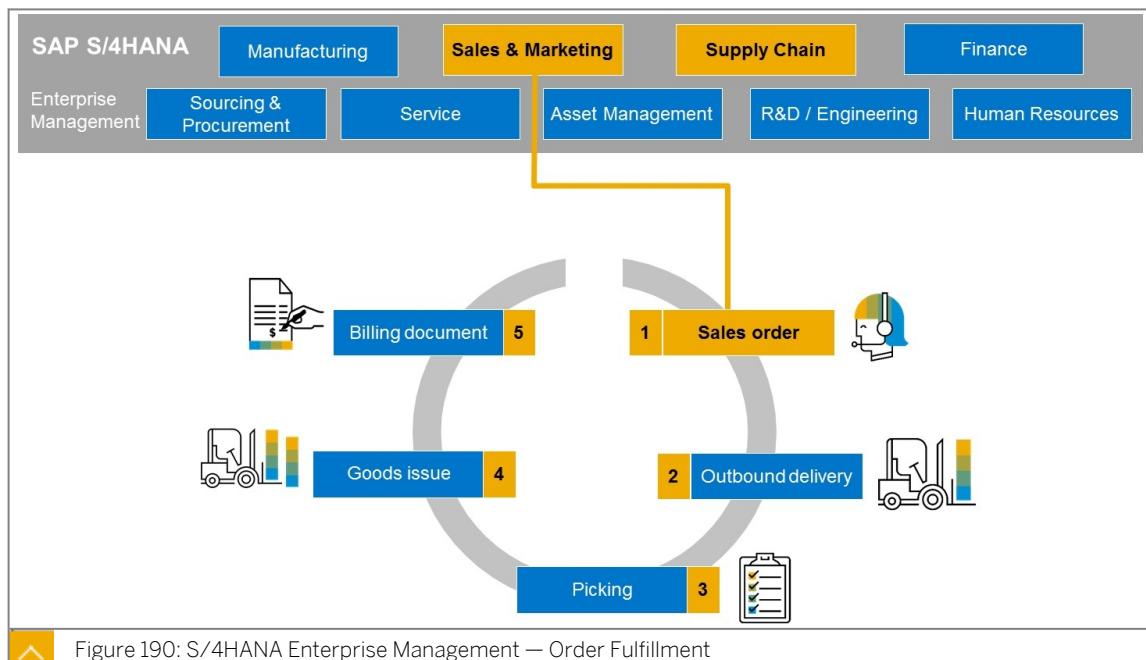


Figure 190: S/4HANA Enterprise Management — Order Fulfillment

The sales organization 1010 receives a purchase order from the customer T-C##.

The customer ordered 4 hours of the service product T-D1## and 2 pieces of the material T-F1##.

The customer reference is S4H00## and the customer reference date is today.

The requested delivery date is today.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Create with the SAP Fiori app *Create Sales Orders* VA01 a sales order as a scheduled order and write down the order number.

Use Sales Organization **1010**, Distribution Channel **10**, and Division **00**.

Use the following information:

Field	Value
Order Type	OR
Sold-To Party	T-C##

Order Items:

Item	Material	Order Quantity
10	T-D1##	4
20	T-F1##	2

Sales order number: \_\_\_\_\_

# Unit 4

## Solution 13

### Create a Sales Order



Simulation: Create a Sales Order

For more information on *Create a Sales Order*, please view the simulation in the lesson *Using Order-to-Cash Processing* in your online course.

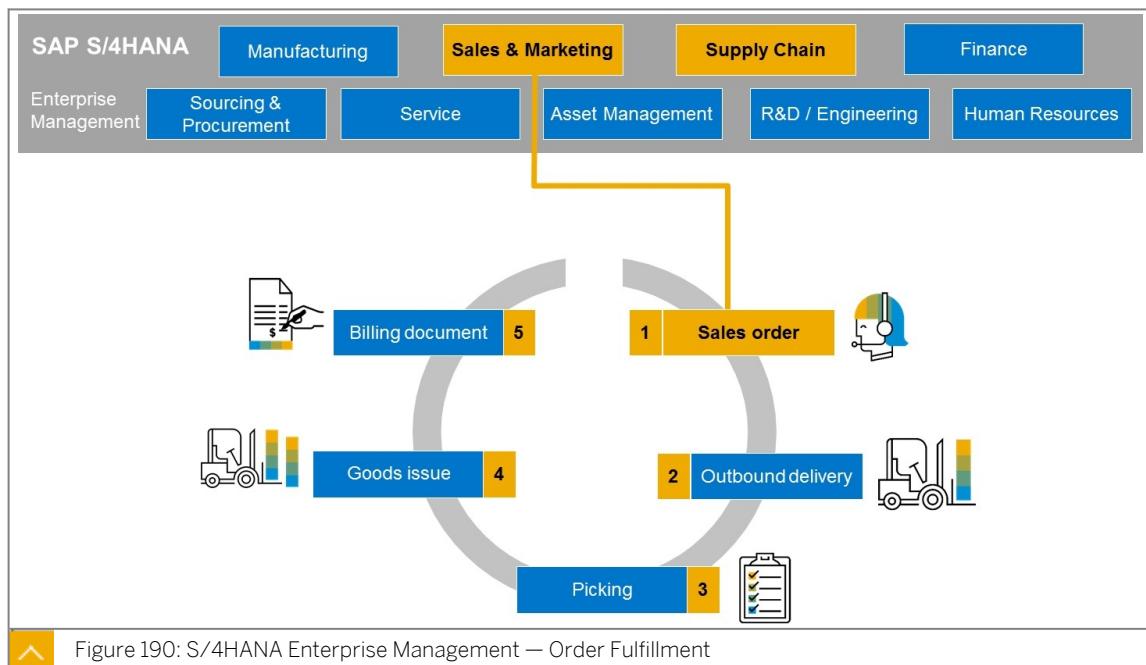


Figure 190: S/4HANA Enterprise Management — Order Fulfillment

The sales organization 1010 receives a purchase order from the customer T-C##.

The customer ordered 4 hours of the service product T-D1## and 2 pieces of the material T-F1##.

The customer reference is S4H00## and the customer reference date is today.

The requested delivery date is today.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Create with the SAP Fiori app *Create Sales Orders* VA01 a sales order as a scheduled order and write down the order number.  
Use Sales Organization **1010**, Distribution Channel **10**, and Division **00**.  
Use the following information:

Field	Value
Order Type	OR
Sold-To Party	T-C##

Order Items:

Item	Material	Order Quantity
10	T-D1##	4
20	T-F1##	2

Sales order number: \_\_\_\_\_

- a) Start the *Create Sales Orders VA01* app (Group: S4H00 - Order-to-Cash Processing) from the SAP Fiori launchpad home page.
- b) Enter the following information:

Field	Value
Order Type	OR
Sales Organization	1010
Distribution Channel	10
Division	00

- c) Choose *Enter*.
- d) Enter the following information:

Field	Value
Sold-To Party	T-C##
Cust. Reference	S4H00##
Cust. Ref. Date.	Today's date

- e) On the Sales tab, enter the following information:

Field	Value
Req. Deliv.Date	Today's date

- f) Choose *Enter*.
- g) Confirm any messages with *Continue* or with (*Continue (Enter)*).

h) In the *All Items* area, enter the following information:

Item	Material	Order Quantity
10	T-D1##	4
20	T-F1##	2

i) To create the sales order, choose *Save* in the bottom right part of the screen.

j) System message: Standard Order .... has been saved.

k) Write down the order number in the space provided above.

l) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

m) Choose *OK*.



## Unit 4 Exercise 14

### Create an Outbound Delivery



#### Simulation: Create an Outbound Delivery

For more information on *Create an Outbound Delivery*, please view the simulation in the lesson *Using Order-to-Cash Processing* in your online course.

You have created a sales order for a customer.

On the customer's requested delivery date, the goods are taken (picked) from the warehouse, and the goods issue is posted.

You need to create an outbound delivery to carry out this process.



#### Note:

In a real-life situation, collective transactions are used to generate and process a large volume of the following documents.

In this exercise, you carry out the steps for individual processing so that you become familiar with the procedure.

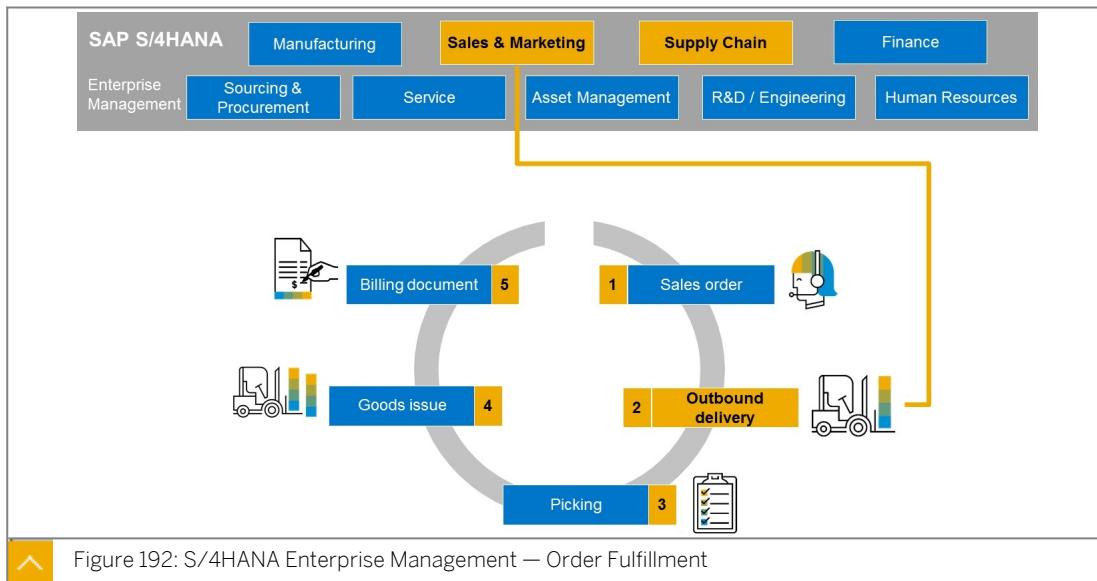


#### Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

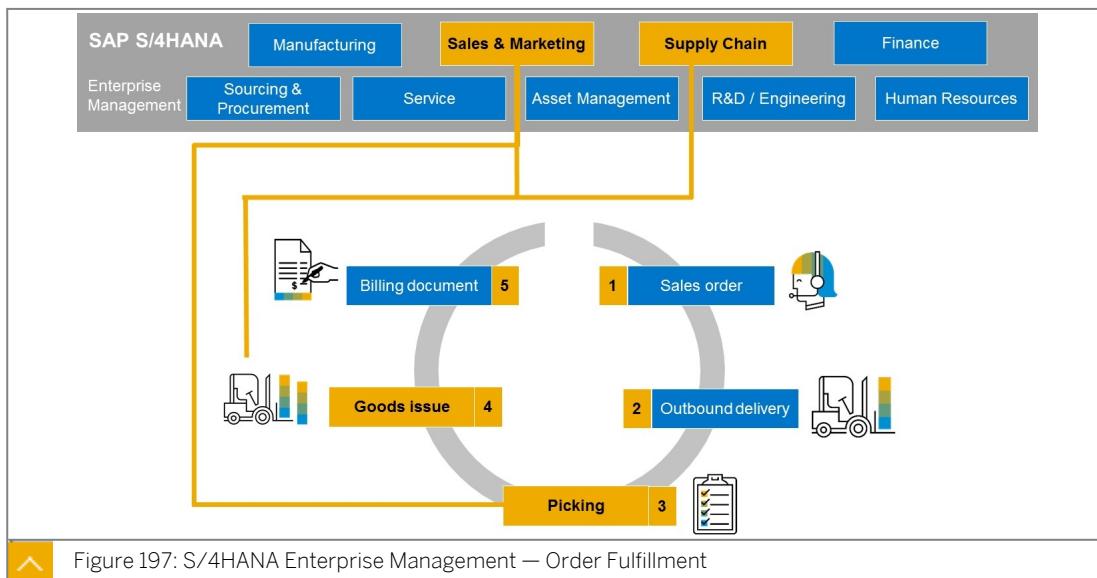
1. Open the SAP Fiori app *Create Outbound Deliveries From Sales Orders* to create the outbound delivery for the sales order that you created in the exercise, Create a Sales Order, using the details in the table, and make a note of the delivery number.

Delivery number: \_\_\_\_\_



Field	Value
Ship-To Party	T-C##
Shipping Point	1010

2. Pick the material for the outbound delivery and post the goods issue using the SAP Fiori app *Pick Outbound Delivery*.



## Unit 4 Solution 14

### Create an Outbound Delivery



#### Simulation: Create an Outbound Delivery

For more information on *Create an Outbound Delivery*, please view the simulation in the lesson *Using Order-to-Cash Processing* in your online course.

You have created a sales order for a customer.

On the customer's requested delivery date, the goods are taken (picked) from the warehouse, and the goods issue is posted.

You need to create an outbound delivery to carry out this process.



#### Note:

In a real-life situation, collective transactions are used to generate and process a large volume of the following documents.

In this exercise, you carry out the steps for individual processing so that you become familiar with the procedure.



#### Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Open the SAP Fiori app *Create Outbound Deliveries From Sales Orders* to create the outbound delivery for the sales order that you created in the exercise, Create a Sales Order, using the details in the table, and make a note of the delivery number.

Delivery number: \_\_\_\_\_

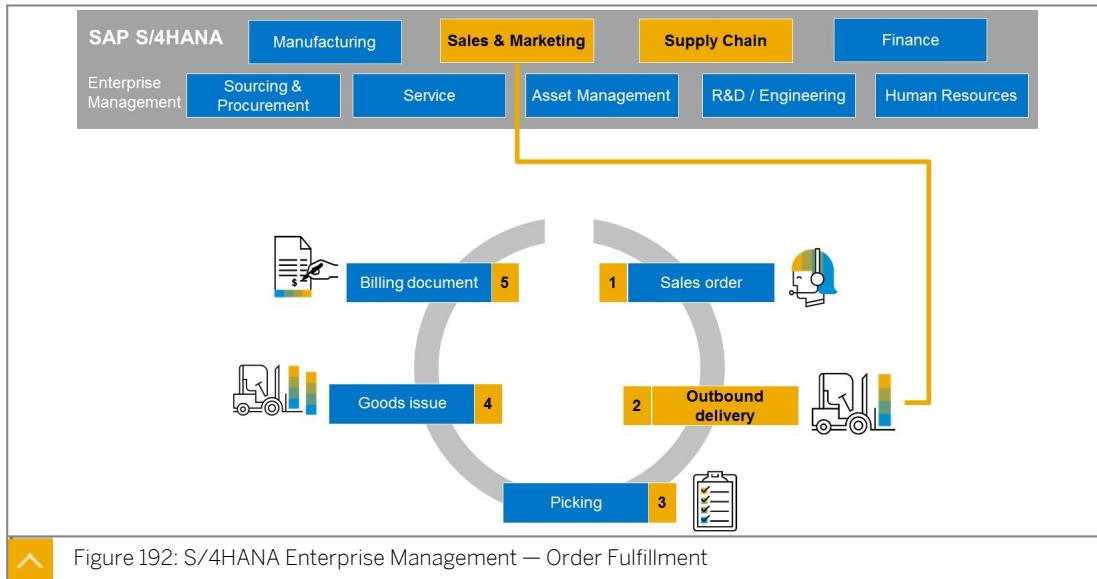


Figure 192: S/4HANA Enterprise Management — Order Fulfillment

Field	Value
Ship-To Party	T-C##
Shipping Point	1010

- a) Start the *Create Outbound Deliveries From Sales Orders* app (Group: S4H00 - Order-to-Cash Processing) from the SAP Fiori launchpad home page.
- b) If necessary, Expand Header:

The screenshot shows a SAP Fiori interface for 'Sales Orders Due for Delivery'. A yellow box highlights the 'Expand Header' button, which is a small square with a downward arrow icon located on the right side of the header area.

Figure 193: Expand Header

- c) Enter the details as provided in the table.

Field	Value
Ship-To Party	T-C##
Shipping Point	1010

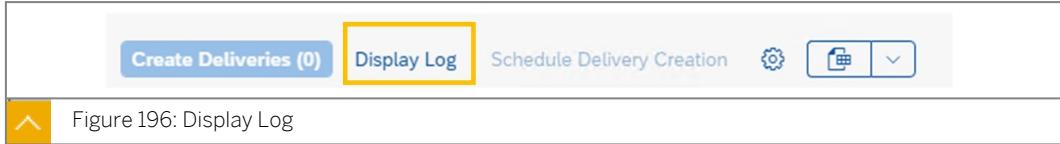
The screenshot shows the SAP Fiori 'Create Outbound Deliveries' application. The search bar at the top has 'Create Outbound Deliveries' typed into it. Below the search bar, there are several input fields: 'Ship-to Party:' and 'Shipping Point:' (both highlighted with a yellow box), 'Planned Creation Date:' (set to 'Today and Tomorrow'), 'Priority:' (dropdown menu), 'Sales Document:' (dropdown menu), 'Relevant for TM:' (checkbox), 'Sales Organization:' (dropdown menu), 'Distribution Channel:' (dropdown menu), and 'Division:' (dropdown menu). At the bottom right of the form is a blue 'Go' button with a yellow box around it, and next to it is a link 'Adapt Filters (5)'.

Figure 194: Create Outbound Deliveries

- d) Choose Go.
- e) Mark the line with your sales document (sales order) and click *Create Deliveries* (1).



f) Choose the *Display Log* to navigate to the log.



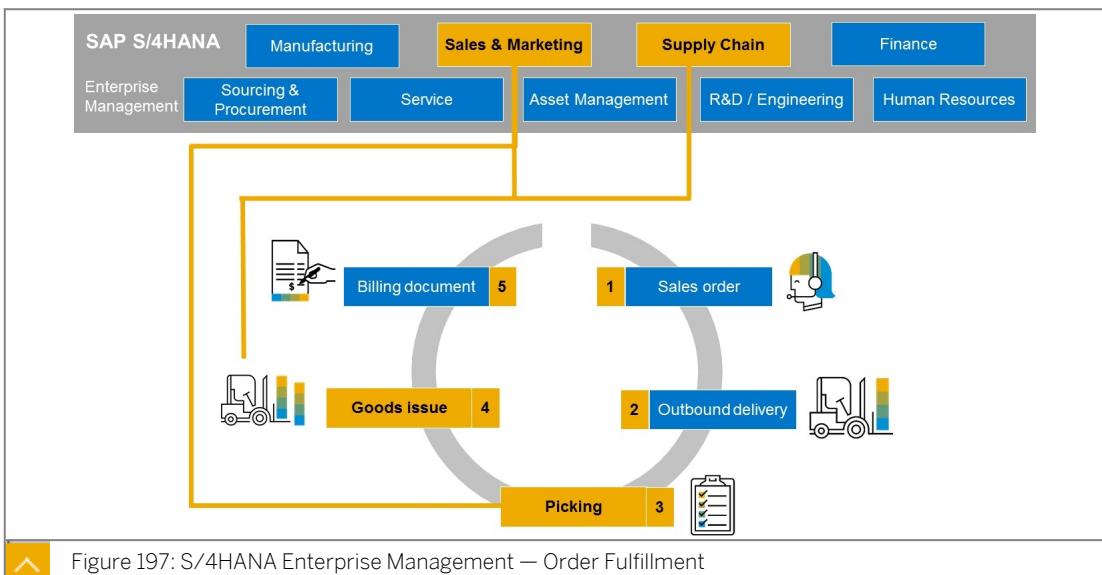
g) Choose the *Deliveries* category.

You'll find the document number of the created outbound delivery in the log.

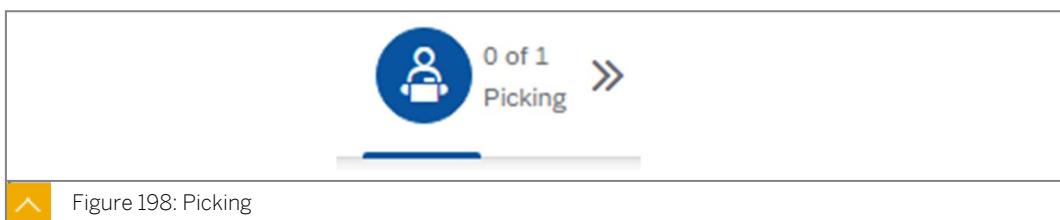
h) Make a note of the delivery number.

i) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

2. Pick the material for the outbound delivery **and** post the goods issue using the SAP Fiori app *Pick Outbound Delivery*.

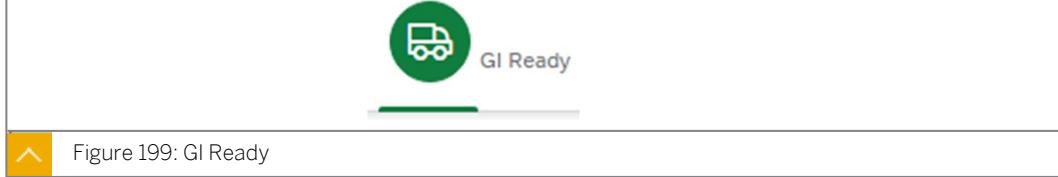


- a) Start the *Pick Outbound Delivery* app (Group: S4H00 - Order-to-Cash Processing) from the SAP Fiori launchpad home page.
- b) Enter the number of your outbound delivery in the corresponding field and choose *Enter*.
- c) On the *Pick Outbound Delivery* screen, ensure that you are in the *Picking* process step.



- d) Enter **2** as the **Picking Quantity**.
- e) Choose **Enter**.
- f) Choose **Save** in the bottom part of the screen.

Within the same app, the view **GI Ready** is displayed.



- g) To complete this step, choose **Post GI** on the bottom part of the screen.

- h) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

## Unit 4 Exercise 15

### Create a Billing Document



#### Simulation: Create a Billing Document

For more information on *Create a Billing Document*, please view the simulation in the lesson *Using Order-to-Cash Processing* in your online course.

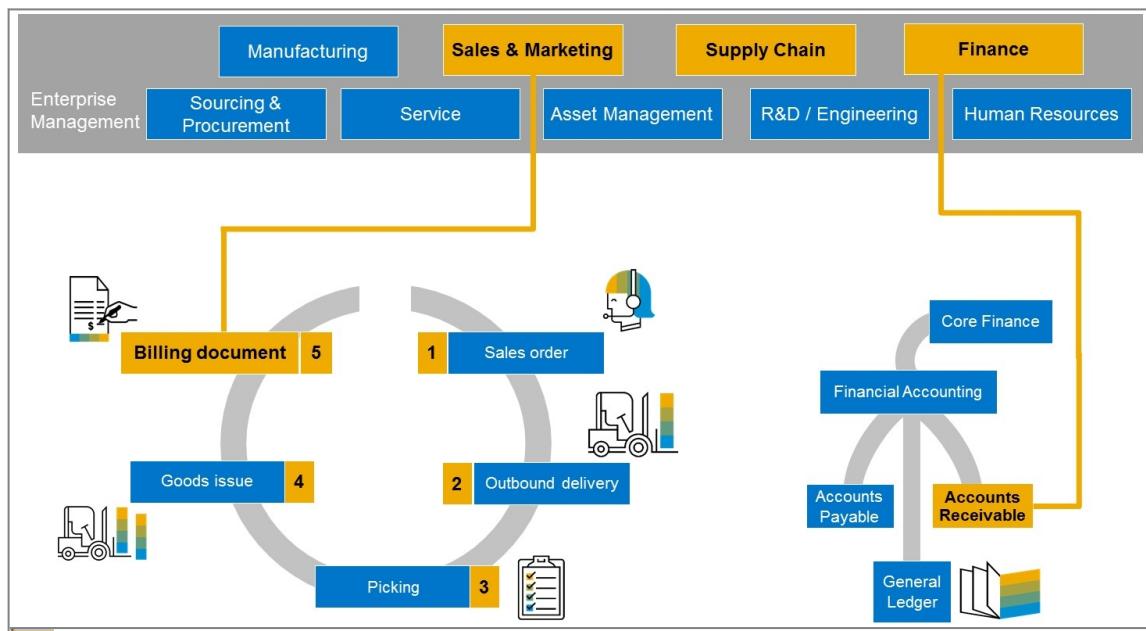


Figure 201: S/4HANA Enterprise Management — Order Fulfillment / Core Finance

After goods have been delivered to a customer to fulfill a sales order, you want to bill the customer for the delivery and sales order. View the documents posted from Sales Order Management.



#### Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Start the app Create Billing Documents **VFO4**, and create the **collective billing document/Online** with reference to the sales order **and** to the outbound delivery.  
Use your sold-to party **T-C##** as selection criteria.  
Documents to be selected:
  - Order-Related
  - Delivery-Related

Use *Billing Type F1*.

Write down the number of the billing document.

Billing document number: \_\_\_\_\_

2. Display the document created by Sales Order Management for **item 20 (Material: T-F1##)** and view the accompanying accounting document.

Choose the SAP Fiori app *Manage Sales Orders* as the entry point.

What information does the accounting transaction contain?

---

---

# Unit 4

## Solution 15

### Create a Billing Document



#### Simulation: Create a Billing Document

For more information on *Create a Billing Document*, please view the simulation in the lesson *Using Order-to-Cash Processing* in your online course.

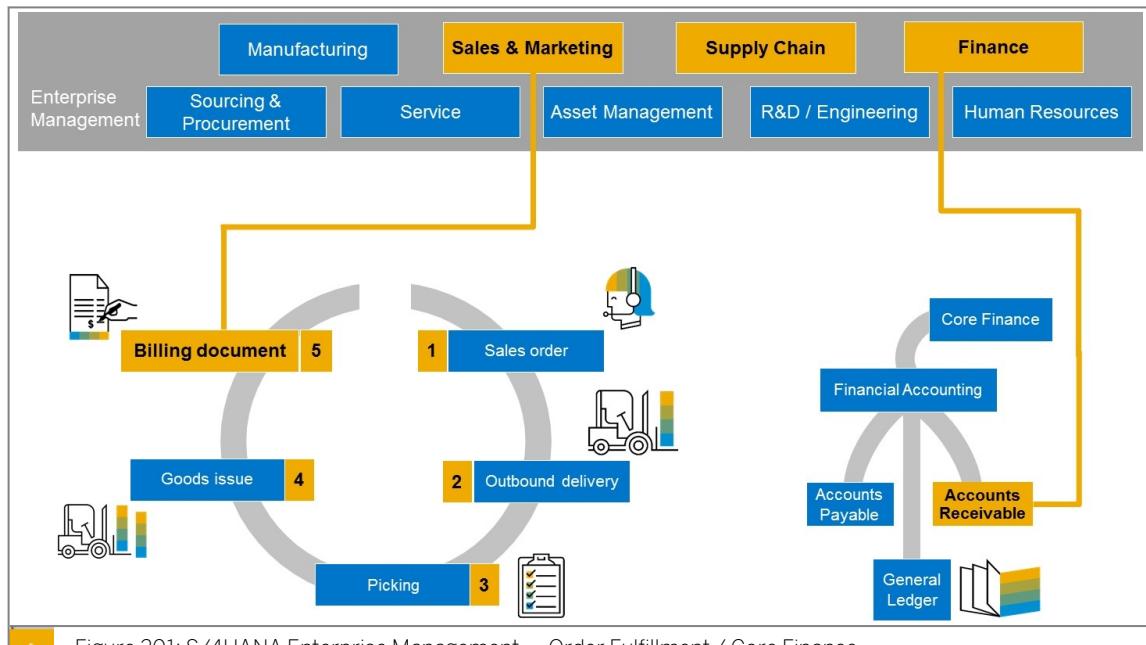


Figure 201: S/4HANA Enterprise Management — Order Fulfillment / Core Finance

After goods have been delivered to a customer to fulfill a sales order, you want to bill the customer for the delivery and sales order. View the documents posted from Sales Order Management.



#### Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Start the app Create Billing Documents **VFO4**, and create the **collective billing document/Online** with reference to the sales order **and** to the outbound delivery.  
Use your sold-to party **T-C##** as selection criteria.  
Documents to be selected:
  - Order-Related
  - Delivery-Related

Use *Billing Type F1*.

Write down the number of the billing document.

Billing document number: \_\_\_\_\_

a) Start the *Create Billing Documents VF04* app (Group: S4H00 - Order-to-Cash Processing) from the SAP Fiori launchpad home page.

b) Enter your sold-to party **T-c##** in the respective field.

c) Documents to be selected:

- **Order-Related**

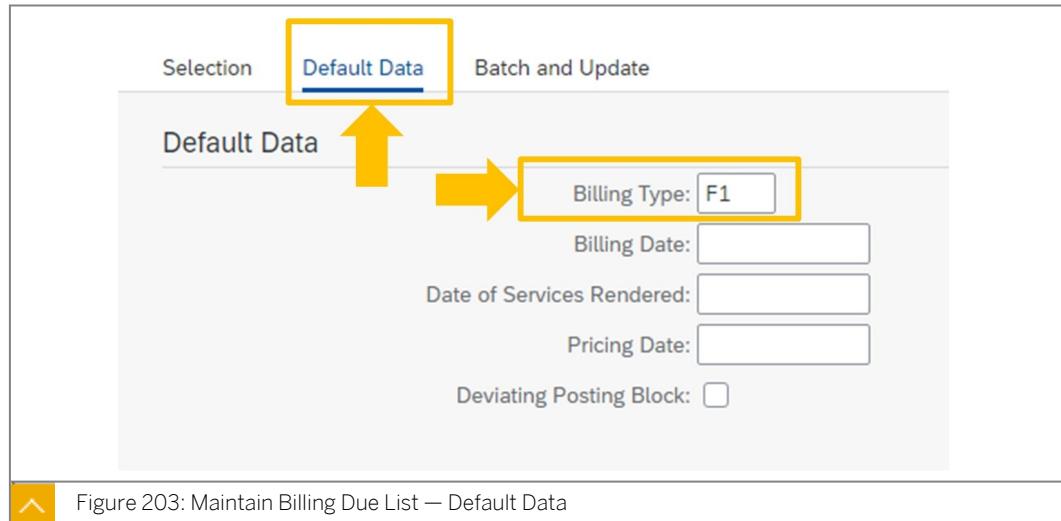
- **Delivery-Related**

The screenshot shows the SAP Fiori interface for creating billing documents. The top navigation bar has tabs for 'Selection', 'Default Data', and 'Batch and Update'. The 'Selection' tab is active. Below it, there are two main sections: 'Organizational Data' and 'Customer Data'. In the 'Customer Data' section, the 'Sold-To Party' field is highlighted with a yellow box. In the 'Documents to Be Selected' section, which is also highlighted with a yellow box, there are several checkboxes. Two checkboxes are checked: 'Order-Related' and 'Delivery-Related'. A yellow arrow points to the 'Order-Related' checkbox. Other checkboxes in this section include 'Rebate-Related', 'Intercompany Billing', 'No Docs with Billing Block', 'Documents with POD Status', and 'Billing Document Requests'. At the bottom left of the screen, there is a yellow navigation icon with an upward arrow.

Figure 202: Maintain Billing Due List — Selection

d) Switch to Default Data.

e) Billing Type: **F1**.



- f) Choose *Display Billing List* at the bottom of the screen.
- g) Select the row with your sales order **and** with your outbound delivery and choose **Collective Billing Doc./Online** at the bottom of the screen.



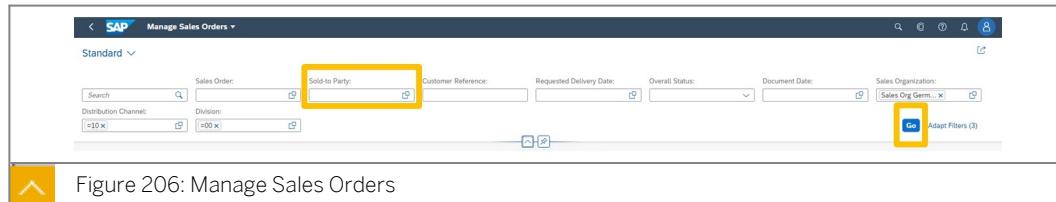
- h) On the *Invoice (F1) (F1) Create: Overview of Billing Items* screen, choose Save at the bottom of the screen to create the billing document.  
System message: Document ..... has been saved.  
The number of the created document is displayed at the bottom of the screen.
- i) Write down the billing document number in the space provided above.
- j) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

2. Display the document created by Sales Order Management for item 20 (Material: T-F1##) and view the accompanying accounting document.  
Choose the SAP Fiori app *Manage Sales Orders* as the entry point.  
What information does the accounting transaction contain?
- 

- a) Start the *Manage Sales Orders* app (Group: S4H00 - Order-to-Cash Processing) from the SAP Fiori launchpad home page.  
If necessary, Expand Header:



- b) In the Sold-To Party field, enter **T-C##** and choose Go.



- c) Select your sales order and click the icon on the right side of the item line in the list.

Your sales order is displayed.

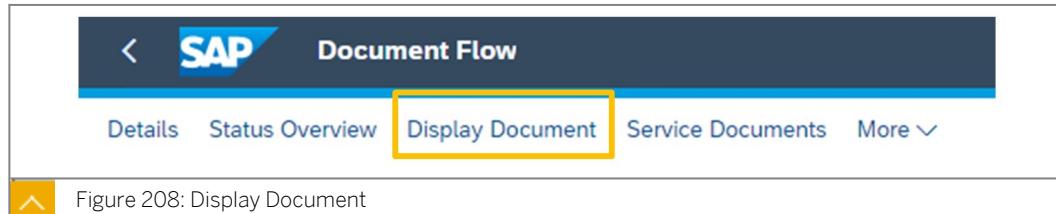
- d) Select **Item 20** (Material: *T-F1##*).

- e) To display the documents created by Sales Order Management, choose *Display Document Flow* (the second button on the upper left part of the screen).

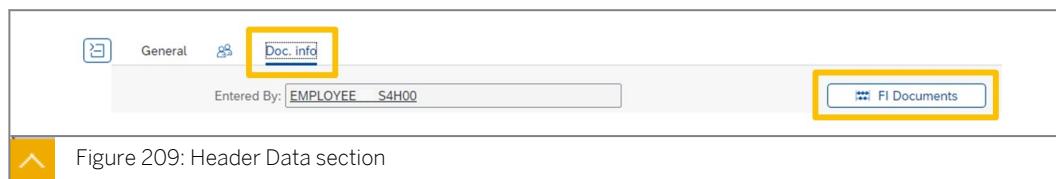


- f) Choose *GD goods issue: delvy <document number>*.

- g) To display the material document, choose *Display document*.



- h) To display the accounting document, choose *Doc. info* tab and select *FI Documents* in the Header Data section of the material document.



- i) Double-click an *Accounting Document* number.

- j) Choose *Exit* in the top right side of the screen.

- k) Close the *List of Documents in Accounting* window.

- l) Choose *Exit* in the top right side of the screen.
- m) On the *Document Flow* screen, select the *Accounting* document (*Journal Entry <document number>*).
- n) Choose *Display document*.
- o) Choose *Exit* in the top right side of the screen.
- p) Choose *Exit* in the top right side of the screen.
- q) Choose *Exit* in the top right side of the screen.
- r) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.



## LESSON SUMMARY

You should now be able to:

- Use Order-to-Cash Processing

## Learning Assessment

1. What is the basic procurement process in an SAP system?

*Choose the correct answer.*

- A Inquiry, sales order, purchase order, and delivery
- B Purchase requisition, purchase order, goods receipt, and invoice receipt
- C Sales order, production order, and purchase order
- D Goods receipt, purchase order, invoice receipt, and vendor master

2. What happens when you enter an invoice with reference to a purchase order?

*Choose the correct answer.*

- A The system suggests data only from the purchase order.
- B The system suggests data from the purchase order and the goods receipt.
- C The system suggests data only from the goods receipt.

3. Which of the following processes (applications) are part of the production processes?

*Choose the correct answers.*

- A Sales and Operations Planning
- B Delivery Processing
- C Material Requirements Planning
- D Manufacturing Execution
- E Master Production Scheduling

4. What types of information are available in the production order?

*Choose the correct answers.*

- A Order components
- B Production dates
- C Production instructions
- D Order costs
- E All of the above
- F None of the above

5. Name the manufacturing execution process step that allows someone to enter the actual time and activities of the various operations during the production process.

*Choose the correct answer.*

- A Disaggregation
- B Confirmation
- C Material requirements planning
- D Costing

6. Which of the following is the correct sales order management process?

*Choose the correct answer.*

- A Picking, sales order, goods issue, billing, and delivery
- B Sales order, picking, goods issue, billing, and delivery
- C Sales order, delivery, picking, goods issue, and billing
- D Goods issue, picking, sales order, delivery, and billing

7. What activities can be performed with a delivery document?

*Choose the correct answers.*

- A Picking
- B Debit memo
- C Credit memo
- D Goods issue

8. A billing document can be created from what two types of documents?

*Choose the correct answers.*

- A** Inquiry
- B** Sales order
- C** Quotation
- D** Rebate list
- E** Delivery



# UNIT 5

# Accounting

## Lesson 1

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Using Management Accounting (CO)	252
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## UNIT OBJECTIVES

- Describe the business process in Financial Accounting
- Understand Accounts Receivable
- Describe General Ledger Accounting
- Understand Accounts Payable
- Describe the business process in Management Accounting

# Unit 5

## Lesson 1

# Using Financial Accounting (FI)

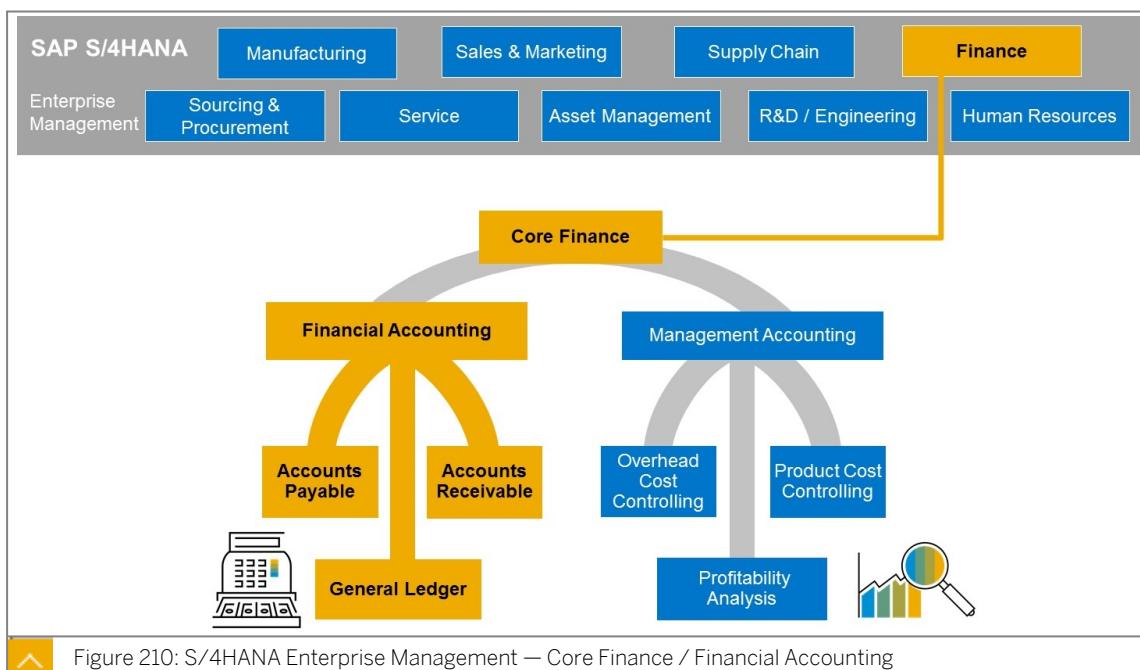


## LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe the business process in Financial Accounting
- Understand Accounts Receivable
- Describe General Ledger Accounting
- Understand Accounts Payable

## Overview of Financial Accounting (FI)



The General Ledger (G/L) is the core of Financial Accounting (FI). The FI application component fulfills all the international requirements that must be met by the FI department of an organization.

General Ledger Accounting (G/L Accounting) provides the following features:

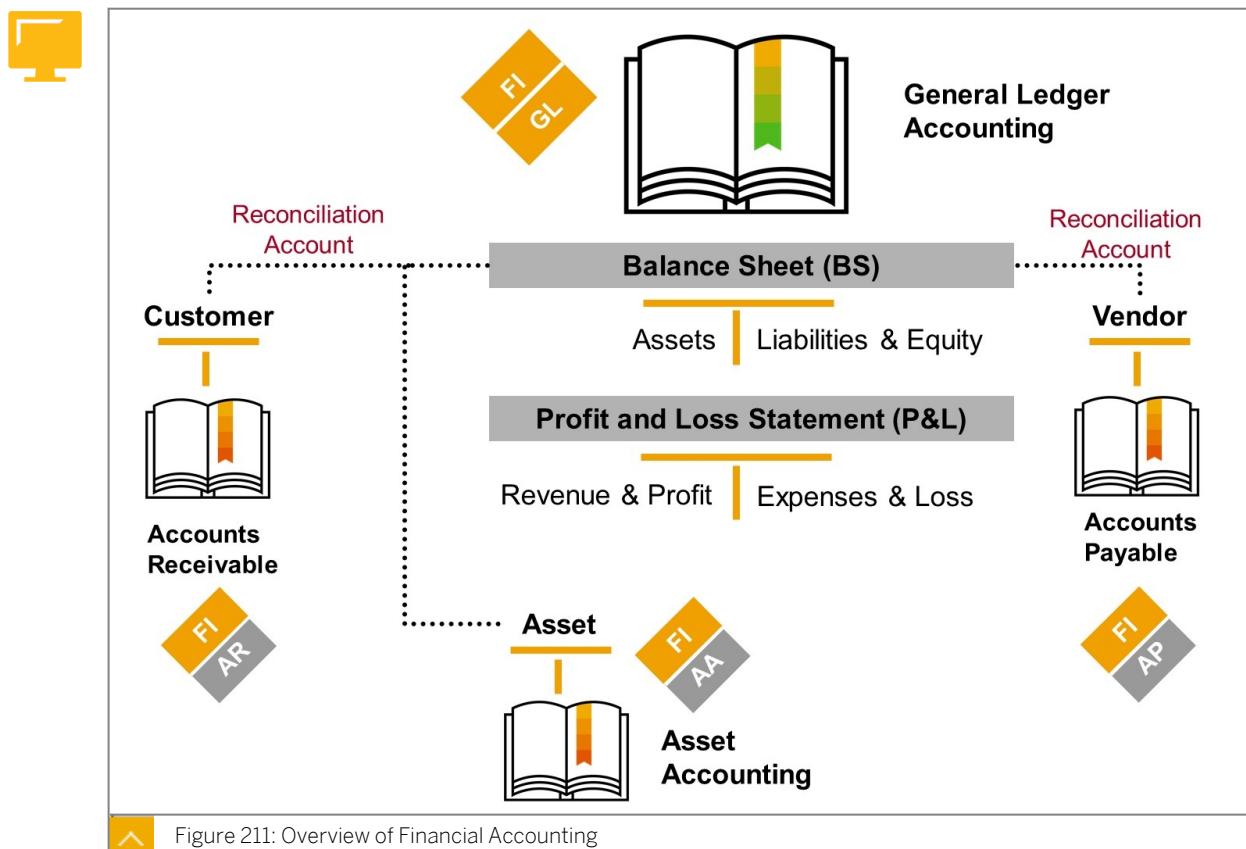
- Management and representation of all accounting data: The system records all business transactions according to the document principle, which provides an unbroken audit trail from the financial statements to the individual documents.
- Open and integrated data flow:

Automatic updates ensure data flow between FI and the other components of the SAP system. Data is available in real time within FI. Postings made in the subledgers always generate a corresponding posting in General Ledger Accounting.

- Decision making:

Preparation of operational information to assist strategic decision-making within the organization.

FI focuses on General Ledger Accounting and the processing of receivables (FI-AR), payables (FI-AP), and Asset Accounting (FI-AA). Important tasks of FI include the recording of monetary and value flows as well as the evaluation of the inventories.



#### Animation: Overview of Financial Accounting

For more information on *Overview of Financial Accounting*, please view the animation in the lesson *Using Financial Accounting (FI)* in your online course.

#### Main Tasks of General Ledger Accounting



- Map all posting-relevant business transactions.
- Display account line items and balances.
- Create and display financial statement for a company code.
- Create financial statements on levels beneath the company code, for example, for profit centers, segments, or business areas.

It is possible to create financial statements on levels beneath the company code within General Ledger.



**Hint:**

The General Leger contains the recording of all accounting-relevant business transactions onto General Ledger accounts from a business point of view. The result of the recording is an accounting document.

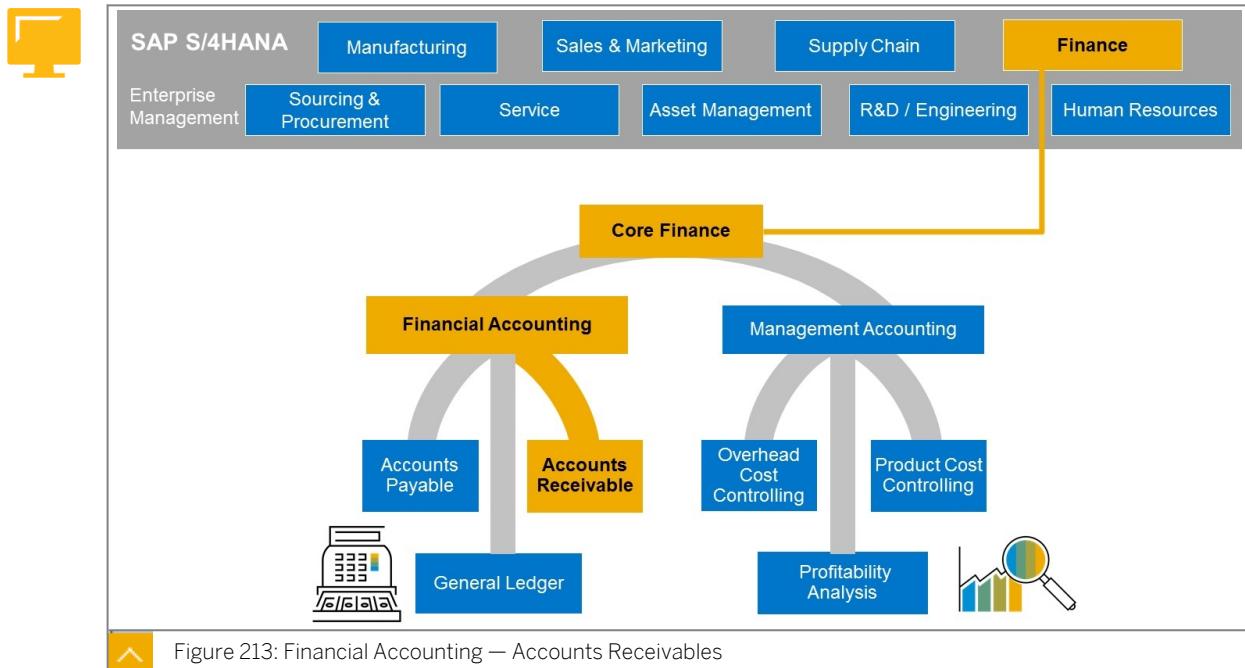
The following are some important terms used in General Ledger Accounting:

Table 1: General Ledger Accounting Terms

Term	Description
General Ledger account	<ul style="list-style-type: none"> <li>It is a structure that records value movements in a company code and represents the General Ledger account items in a chart of accounts.</li> <li>A General Ledger account has transaction figures that record changes to the account during a posting period. These figures are totals that are used for General Ledger reporting.</li> <li>In general, you can distinguish between a General Ledger account as an income statement or balance sheet account.</li> </ul>
Company code	<ul style="list-style-type: none"> <li>It is the smallest organizational unit of FI for which a complete, self-contained set of accounts can be drawn up for purposes of external reporting.</li> <li>This includes recording all relevant transactions and generating all supporting documents required for financial statements.</li> </ul>
Chart of accounts	<ul style="list-style-type: none"> <li>It is a classification scheme consisting of a group of General Ledger accounts.</li> <li>It provides a framework for the recording of values to ensure an orderly rendering of accounting data.</li> <li>The General Ledger accounts are used by one or more company codes.</li> </ul>

Term	Description
Journal Entry	<ul style="list-style-type: none"> <li>It records the changes in values in a company code arising from accounting transactions.</li> <li>A document consists of two or more line items. The document represents at least one individual transaction posted to an account.</li> <li>When posting an accounting document, the SAP system updates the transaction figures in the accounts to which the document is posted.</li> <li>It is a representation within the SAP system of the document (for example, an invoice) that triggered the posting.</li> </ul>

## Accounts Receivables



The Financial Accounting subledger Accounts Receivable records and administers accounting data of all customers. It is also an integral part of sales management. The system records all postings in Accounts Receivable directly in the General Ledger (G/L). The system updates different General Ledger accounts depending on the transaction involved, for example, receivables, down payments, and bills of exchange.

The system contains a wide range of tools that you can use to monitor open items, such as, account analyzes, alarm reports, due date lists, and a flexible dunning program. The correspondence linked to these tools can be individually formulated to suit your requirements.

This is also the case for payment notices, balance confirmations, account statements, and interest calculations. You can assign incoming payments to due receivables using user-

friendly screen functions or by electronic means such as Electronic Data Interchange (EDI) and data telecommunication.

The payment program can automatically carry out direct debiting and down payments. There is a wide range of tools available for documenting the transactions that occur in Accounts Receivable, including balance lists, journals, balance audit trails, and other standard reports.

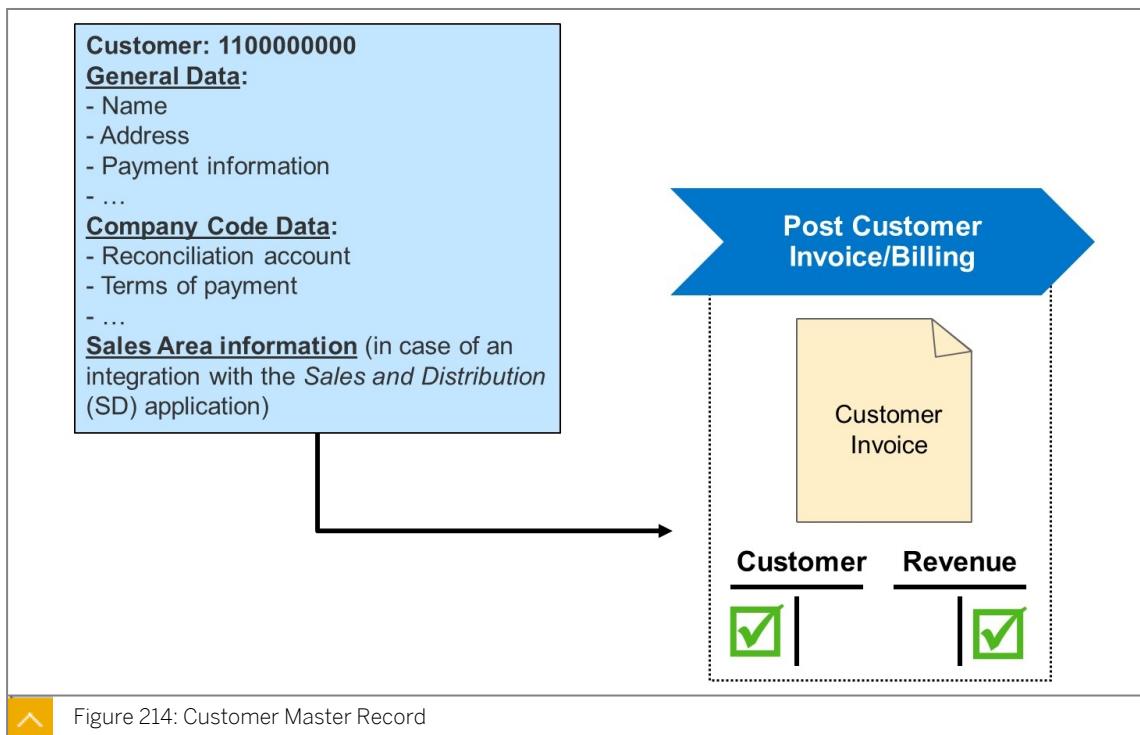
When drawing up financial statements, the items in foreign currency are revalued, customers who are also vendors are listed, and the balances on the accounts are sorted by remaining life.



#### Note:

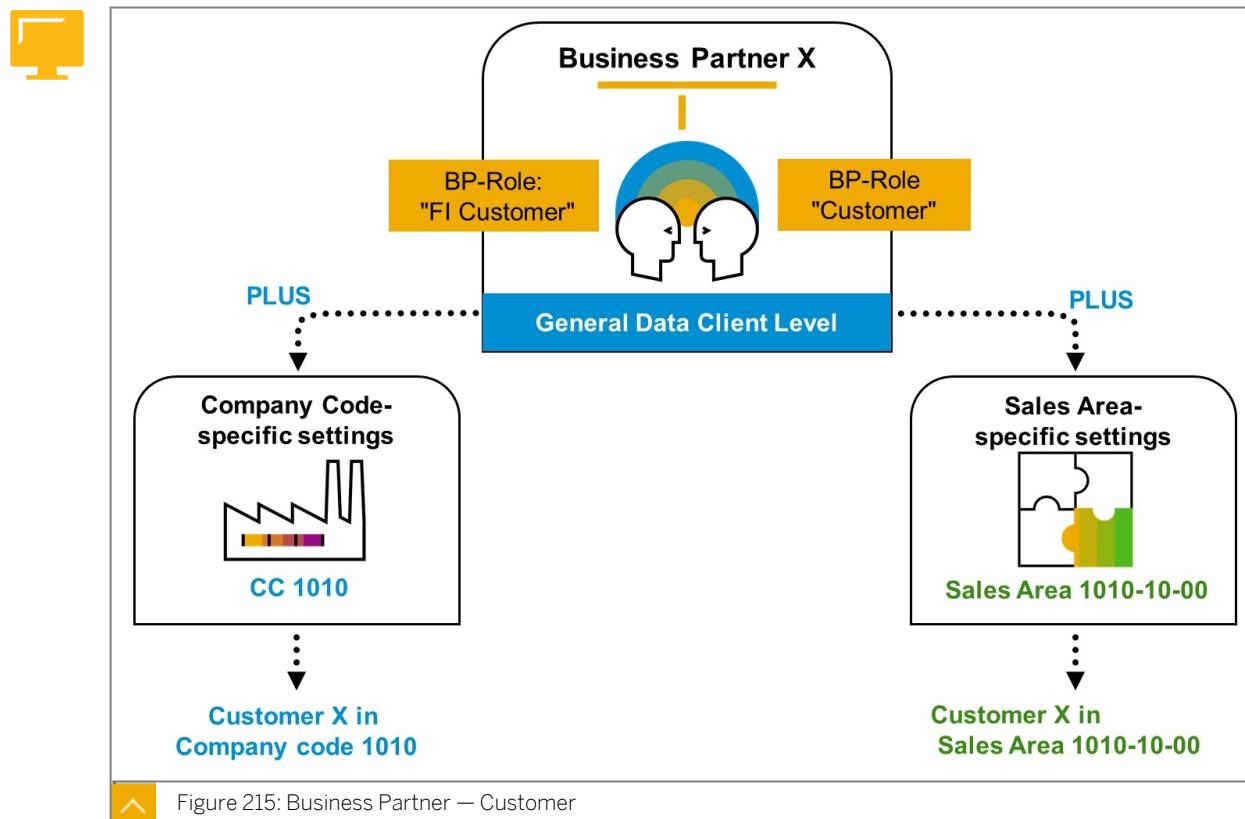
Accounts Receivable is not only one of the branches of accounting that forms the basis of adequate and orderly accounting, it also provides the data required for effective credit management. This is because of its close integration with the Sales and Distribution (SD) component.

Through its link to Cash Management, it is also able to provide important information for the optimization of liquidity planning.



In the SAP system, all business transactions are posted to and managed in accounts. Before posting a customer invoice, you must create a master record for each account that you require. Then, you can post a customer invoice within the Accounts Receivable application. The master record contains the data that controls how business transactions are recorded and processed by the system. It also includes all the information about the customer with whom you need to conduct business.

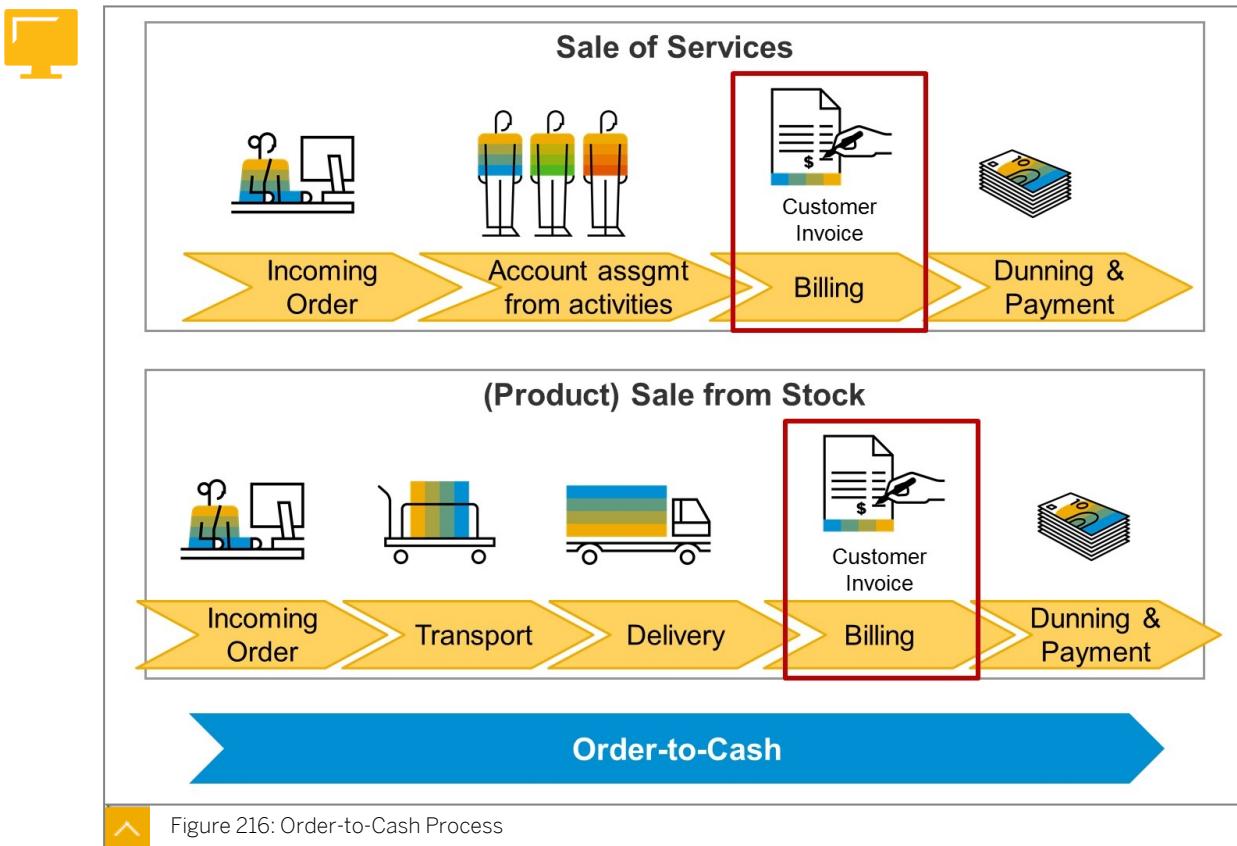
#### Business Partner — Customer



Both the accounting (FI-Accounts Receivable) and the sales departments (SD) of your organization use business partner master records. By storing customer master data centrally, you can access this data throughout your organization, and avoid the need to enter the same information again.

You can also avoid inconsistencies in master data by maintaining it centrally. For example, if the address of one of your customers changes, you only have to enter this change once, and your accounting and sales departments will always have the updated information.

## Order-to-Cash Process



The displayed integrated process is called the order-to-cash process. The sales order (displayed as the Incoming Order process step) is the basis of the sales process. Using a sales order effectively, all services with regard to the customer run off as an integrated process.

The SAP SD component uses interlinked documents to initiate a workflow.

In the SAP system, sales organizations are legally responsible for sales. There can be several sales organizations within one company code. Every sales organization can use different distribution channels to sell goods. The combination of a sales organization and a distribution channel is also called a distribution chain.

The sales order is generated at the level of the distribution chain. The ordered items can apply to different divisions.



Hint:

Many different scenarios can be handled with sales orders in SD.

Two examples of the scenarios, also relevant in accounting are as follows:

- The (anonymous) sale of products from stock.
- The sale of services displayed in the system as make-to-order production.

### Sale of Products from Stock

As this sale does not involve an activity output because the material is already evaluated in stock, it is handled with a sales order item that is not a cost object. This means that the

system derives costs and revenues automatically from the material production costs and from the sales prices respectively. In this case, you do not assign the costs to a sales order item. On the day of shipping, an outbound delivery document is created. The delivery cannot be billed until the goods have been withdrawn from the stock and posted as a goods issue.

You can create a transport order that generates a picking order. The required goods are removed from the stock and prepared for delivery. The goods to be delivered are posted as goods issue. A goods issue document is created in Materials Management. An accounting document is also created in FI to post the goods issue to the correct General Ledger accounts.

The next step in the SD process is billing. A billing document is created in SD and a printed invoice is sent to the customer. From an Accounting perspective, billing is accounted when the revenue occurs.

FI allows you to analyze the open items and dun overdue items automatically. While doing this, a dunning level is defined for which the value is higher if the number of days in arrears is higher. Dunning fees and interest can be calculated on the basis of this dunning level. The dunning text that is selected also depends on the dunning level. All sent dunning notices to the customer are administered in a dunning history.

Automatic dunning can be triggered for only one account that is individual dunning or the dunning program executes automatic dunning for all or a limited number of customers. The customers are selected in the dunning run and checked for overdue items. Finally, a check is made as to whether dunning notices have to be sent and dunning levels are allocated.



## Unit 5 Exercise 16

# Understand a Customer Master Record



### Simulation: Understand a Customer Master Record

For more information on *Understand a Customer Master Record*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

#### Business Example

As a member of the finance department of your company, you are responsible for managing the master data of the customer records that are relevant to accounting.

After creating a customer invoice in the previous unit within the logistics area you now want to understand how a customer master record works and how it is integrated into the general ledger.

Verify system settings that are important to understand the entry and posting of a customer invoice in Accounts Receivable.



#### Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Display the business partner master record of customer T-C## and identify the reconciliation account that is stored in the company code data.

To display the data, use the *Company Code 1010* and the *Maintain Business Partner SAP Fiori app*.

Reconciliation account number: \_\_\_\_\_

# Unit 5

## Solution 16

## Understand a Customer Master Record



Simulation: Understand a Customer Master Record

For more information on *Understand a Customer Master Record*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

### Business Example

As a member of the finance department of your company, you are responsible for managing the master data of the customer records that are relevant to accounting.

After creating a customer invoice in the previous unit within the logistics area you now want to understand how a customer master record works and how it is integrated into the general ledger.

Verify system settings that are important to understand the entry and posting of a customer invoice in Accounts Receivable.



#### Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Display the business partner master record of customer T-C## and identify the reconciliation account that is stored in the company code data.

To display the data, use the *Company Code 1010* and the *Maintain Business Partner SAP Fiori* app .

Reconciliation account number: \_\_\_\_\_

- a) In the SAP Fiori launchpad home page, choose the *S4H00 — Master Data* tile group and start the *Maintain Business Partner SAP Fiori* app.

- b) Enter the following data:

Field Name or Data Type	Value
Business Partner	T-c## (### = your group number)

- c) Choose *Enter*.

- d) Choose *FI Customer* from the drop-down list of the *Display in BP role* field.

You see the general information of the customer.

Now change to the company code-specific data.

- e) Choose *Company Code*.

- f) Enter Company Code **1010** and, if the company code is not automatically displayed, choose *Enter*.

The reconciliation account is displayed in the *Customer: Account Management* group. **12100000** is the reconciliation account that you are looking for.

- g) To understand the structure of the finance side of a business partner, switch to the *Customer: Payment Transactions* group to check the default payment terms on the finance side and to the *Customer: Correspondence* group to check the dunning information.

- h) Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.



# Unit 5

## Exercise 17

## Work with Accounts Receivable



Simulation: Work with Accounts Receivable

For more information on *Work with Accounts Receivable*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

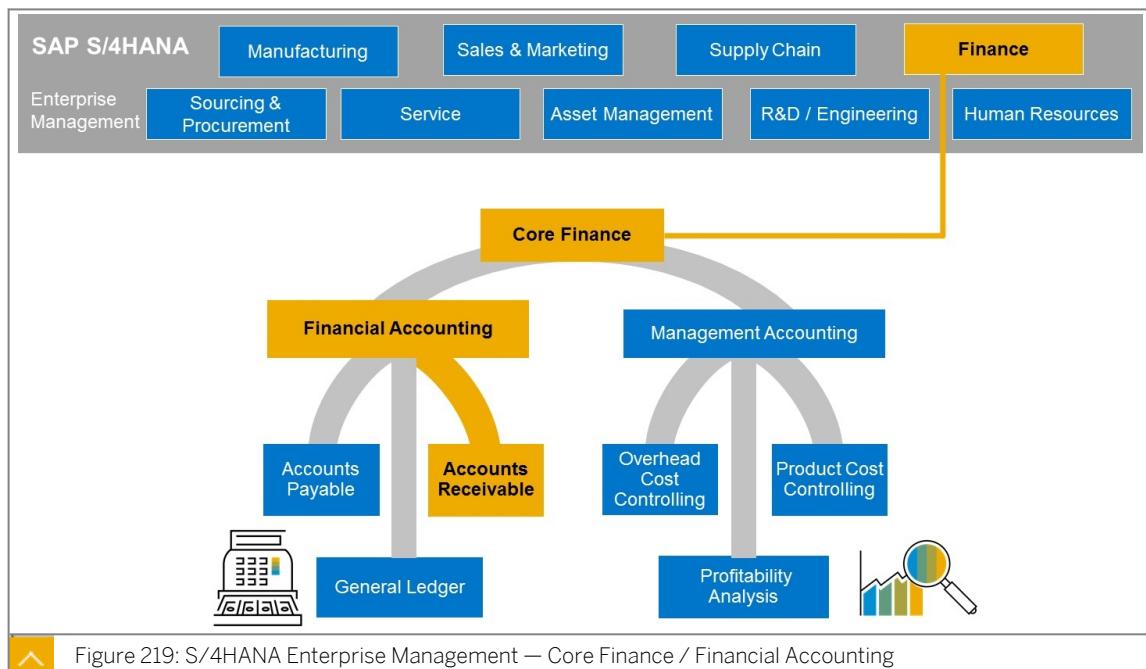


Figure 219: S/4HANA Enterprise Management — Core Finance / Financial Accounting

### Business Example

As a member of the finance department of your company, you are responsible for postings made on accounts receivable accounts.

As your colleague from the logistics department told you that a new invoice was sent to a customer you now want to understand the impact on the finance area after you already checked the master record of the customer.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Display the balance of your customer **T-C##** and check whether you can find any values on it.

To display the data, use the Company Code **1010** and the SAP Fiori app *Display Customer Balances*.

2. Display the line items of your customer **T-C##** directly, using the SAP Fiori app *Manage Customer Line Items*.
3. After posting the invoice you created earlier in the Logistics unit, you post a incoming payment.

Use the SAP Fiori app *Post Incoming Payments* to post the payment for the original invoice posted from within sales order management (S4H00, Unit 4, Lesson 3) for the **T-C##** customer within company code **1010** using the following data.

Field Name or Data Type	Value
Company Code	<b>1010</b>
Posting Date	Today
Journal Entry Date	Today
Value Date	Today
Journal Entry Type	<b>DZ</b> (Customer Payment)
G/L Account	<b>11100000</b>
Amount/Currency	<b>1537,80 EUR</b>
Account Type/Account ID	<b>Customer T-C##</b> (## = your group number)

4. Analyze the impact of the incoming payment on the customer line items.

Use the SAP Fiori app *Manage Customer Line Items* to display **all** items of your Customer **T-C##**.

# Unit 5

## Solution 17

### Work with Accounts Receivable



Simulation: Work with Accounts Receivable

For more information on *Work with Accounts Receivable*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

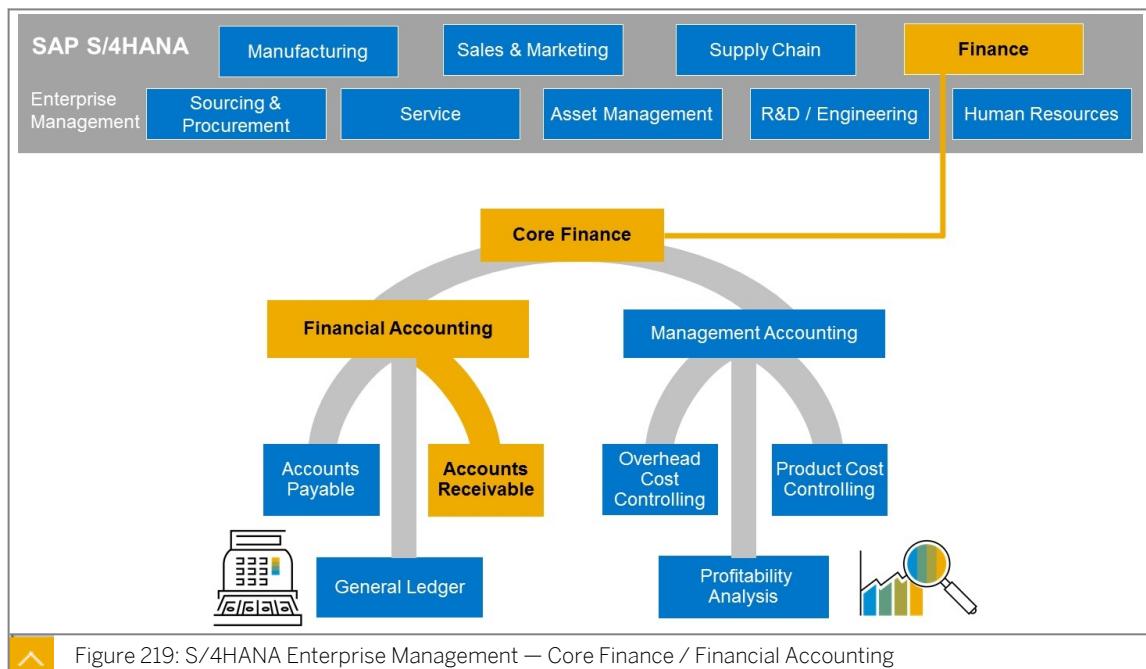


Figure 219: S/4HANA Enterprise Management — Core Finance / Financial Accounting

#### Business Example

As a member of the finance department of your company, you are responsible for postings made on accounts receivable accounts.

As your colleague from the logistics department told you that a new invoice was sent to a customer you now want to understand the impact on the finance area after you already checked the master record of the customer.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Display the balance of your customer **T-C##** and check whether you can find any values on it.

To display the data, use the Company Code **1010** and the SAP Fiori app *Display Customer Balances*.

- a) In the SAP Fiori launchpad home page, choose the *S4H00 – Financial Accounting – Accounts Receivable* tile group and start the SAP Fiori app *Display Customer Balances*.

- b) Enter the following data:

Field Name or Data Type	Value
Customer	<b>T-C##</b> (## = your group number)
Company Code	<b>1010</b>
Fiscal Year	Current year

- c) Choose Go.

You see the balance of the account of your customer.

- d) Choose the amount in the debit column for the current period to see an overview of the customer line items.

You see one open item corresponding to the invoice that you posted earlier in the logistics unit.

- e) Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.

2. Display the line items of your customer **T-C##** directly, using the SAP Fiori app *Manage Customer Line Items*.

- a) In the SAP Fiori launchpad home page, choose the *S4H00 – Financial Accounting – Accounts Receivable* tile group and start the SAP Fiori app *Manage Customer Line Items*.

- b) Enter the following data:

Field Name or Data Type	Value
Customer	<b>T-C##</b> (## = your group number)
Company Code	<b>1010</b>

- c) Choose Go.

You see the line items of your customer. Again, this is the invoice you created earlier in the logistics unit.

- d) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

3. After posting the invoice you created earlier in the Logistics unit, you post a incoming payment.

Use the SAP Fiori app *Post Incoming Payments* to post the payment for the original invoice posted from within sales order management (S4H00, Unit 4, Lesson 3) for the **T-C##** customer within company code **1010** using the following data.

Field Name or Data Type	Value
Company Code	<b>1010</b>
Posting Date	Today
Journal Entry Date	Today
Value Date	Today
Journal Entry Type	<b>DZ</b> (Customer Payment)
G/L Account	<b>11100000</b>
Amount/Currency	<b>1537,80 EUR</b>
Account Type/Account ID	<b>Customer T-C##</b> (## = your group number)

a) In the SAP Fiori launchpad home page, choose the *S4H00 — Financial Accounting — Accounts Receivable* tile group and start the SAP Fiori app *Post Incoming Payments*.

b) Enter the data provided in the table:

Field Name or Data Type	Value
Company Code	<b>1010</b>
Posting Date	Today
Journal Entry Date	Today
Value Date	Today
Journal Entry Type	<b>DZ</b> (Customer Payment)
G/L Account	<b>11100000</b>
Amount/Currency	<b>1537,80 EUR</b>
Account Type/Account ID	<b>Customer T-C##</b> (## = your group number)

c) Choose *Propose Items*.

d) Choose *Clear* next to the open item with the amount of **EUR 1537,80**.

e) Choose *Post* in the bottom part of the screen.

f) System message: Journal entry ..... posted successfully.

g) Choose *Display* in the following dialog box.

h) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

4. Analyze the impact of the incoming payment on the customer line items.

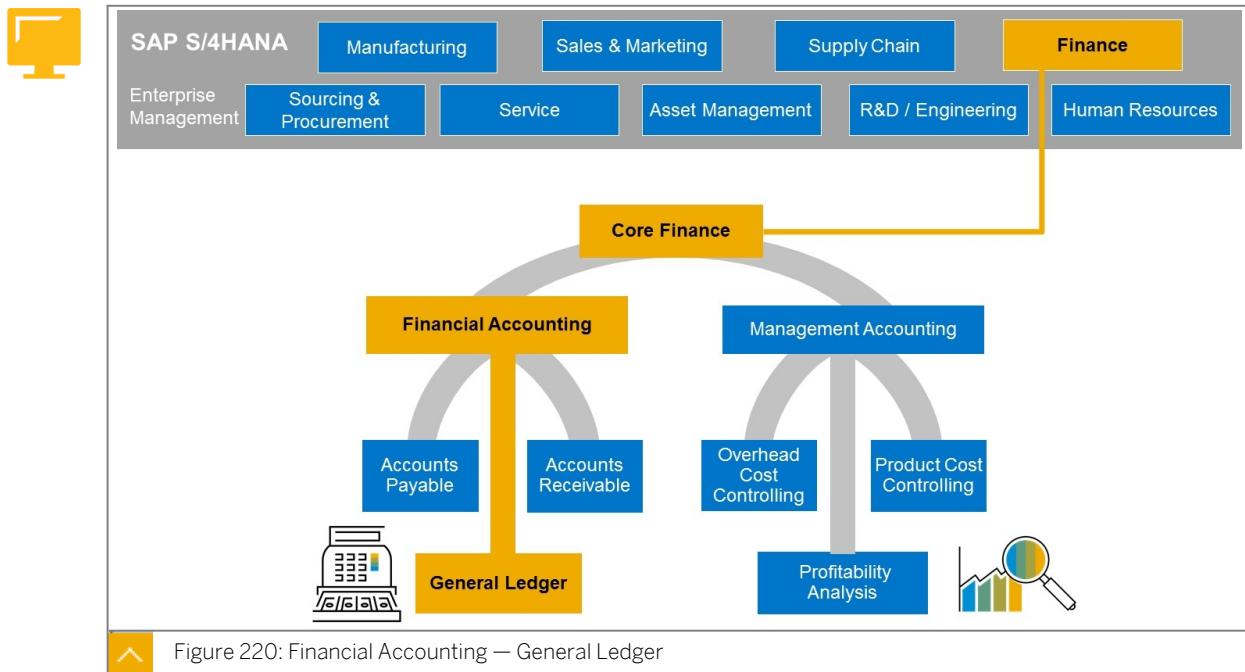
Use the SAP Fiori app *Manage Customer Line Items* to display all items of your Customer **T-C##**.

- a) In the SAP Fiori launchpad home page, choose the *S4H00 – Financial Accounting – Accounts Receivable* tile group and start the SAP Fiori app *Manage Customer Line Items*.
- b) Enter the following data:

Field Name or Data Type	Value
Customer	T-C## (## = your group number)
Company Code	1010
Status	All Items

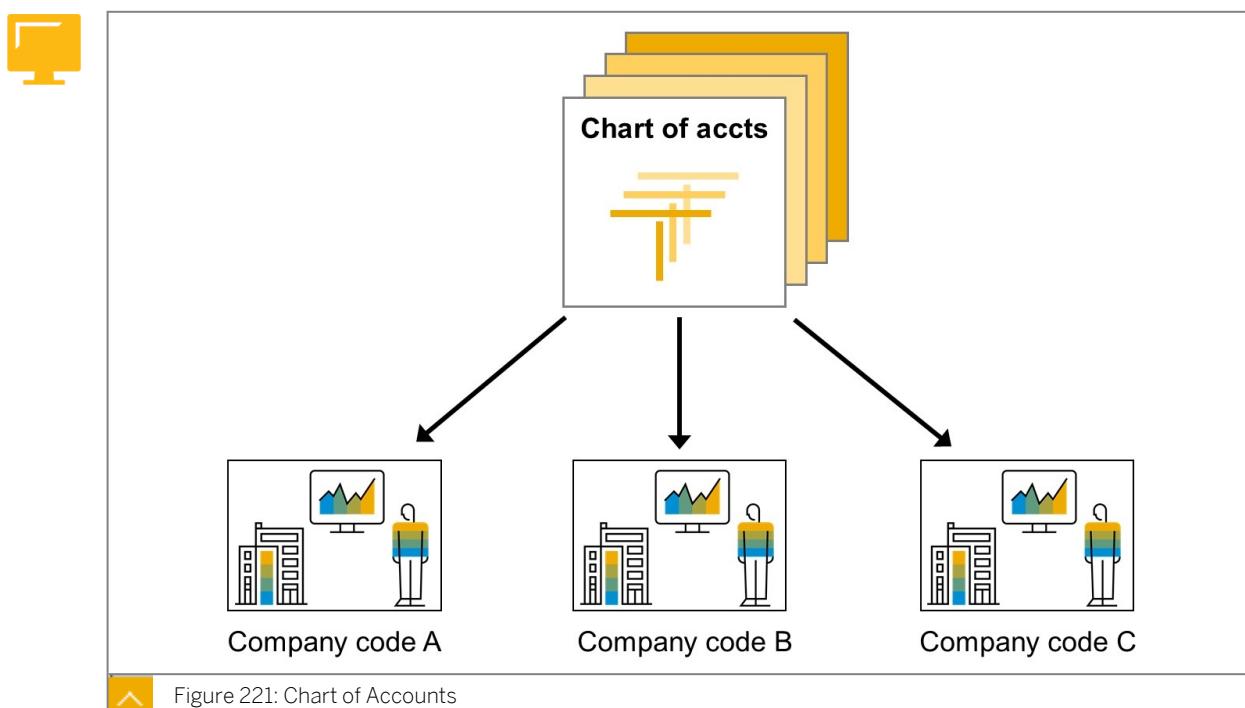
- c) Choose Go.  
You see two cleared items.
- d) Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.

## General Ledger Accounting



Creating a Financial Statement is the core functionality of the General Ledger.

To create a financial statement, you have to know which accounts can be used for a specific company code and how these accounts are structured in the financial statement.



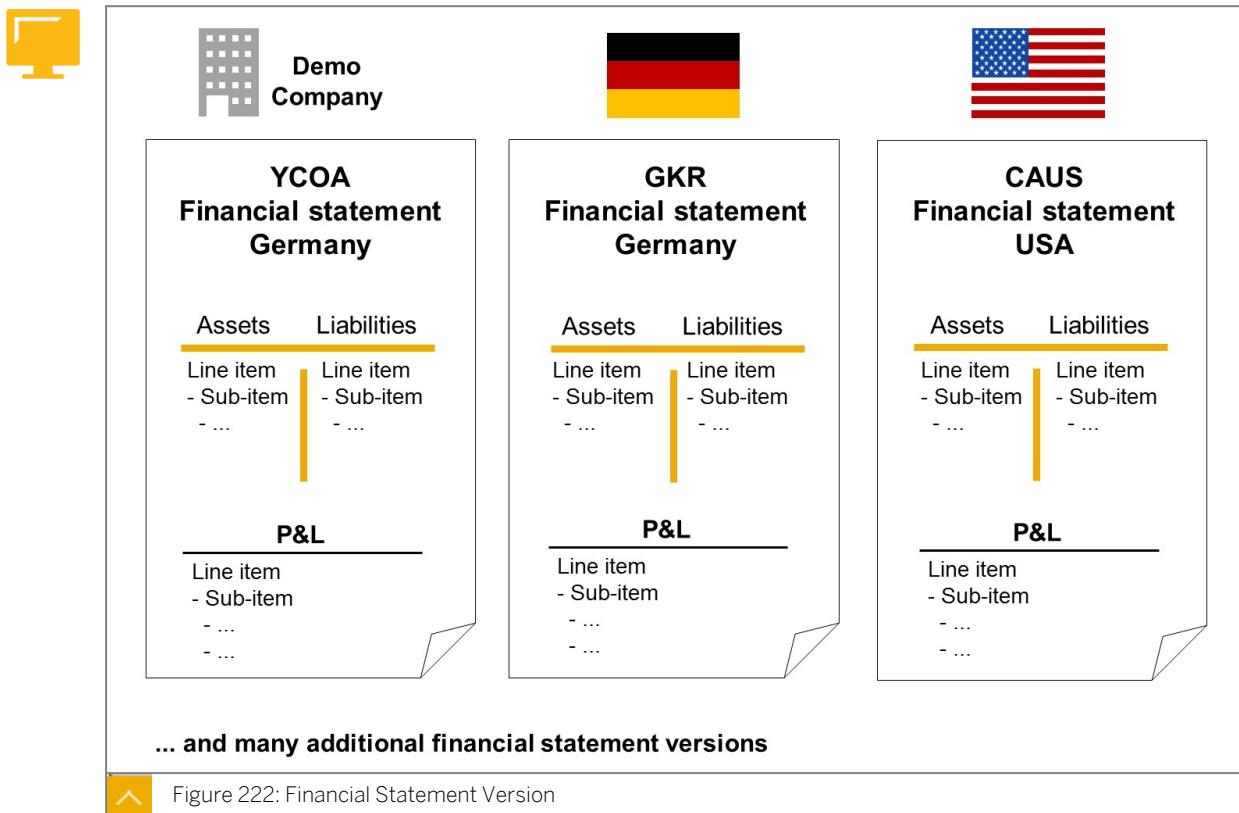
### General Ledger Accounts and the Chart of Accounts

Within General Ledger accounting the General Ledger account is the most important master data. General Ledger accounts are structured in charts of accounts.

The use of an operational Chart of Accounts is mandatory when using SAP Financials.

### Operational Chart of Accounts:

The operational chart of accounts is the Chart of Accounts that is being used on an operational level. The accounts of this chart of accounts are the ones the accountants use when posting documents. It is assigned on company code level. The use of this chart of accounts is mandatory.



### Financial Statement Versions

A General Ledger provides the information needed to create a balance sheet and a profit-and-loss statement. These reports have to meet country-specific requirements. Our demo company needs to create financial statements based on the German Commercial Code (HGB) for company code 1010 (Germany), and based on the U.S. Generally Accepted Accounting Principles (GAAP) for company code 1710 (USA).

To meet the various reporting requirements, various financial statement versions can be created in the SAP system. In these financial statement versions, you define exactly which accounts are to appear in which line items of the financial statement. Many financial statement versions are included in the SAP system.

When running financial statement reports, a financial statement version that contains the details of the report structure needs to be selected.

The subledgers within financial accounting are connected with the General Ledger by the use of reconciliation accounts.

**Reconciliation accounts** connect subsidiary ledgers with the General Ledger in real time. This means that a posting to a subsidiary ledger posts to the corresponding reconciliation account in the General Ledger at the same time.

The subsidiary ledgers, which are connected to the General Ledger via reconciliation accounts, are as follows:

- Accounts payable
- Accounts receivable
- Asset accounting



# Unit 5

## Exercise 18

## Understand Reconciliation Accounts



Simulation: Understand Reconciliation Accounts

For more information on *Understand Reconciliation Accounts*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

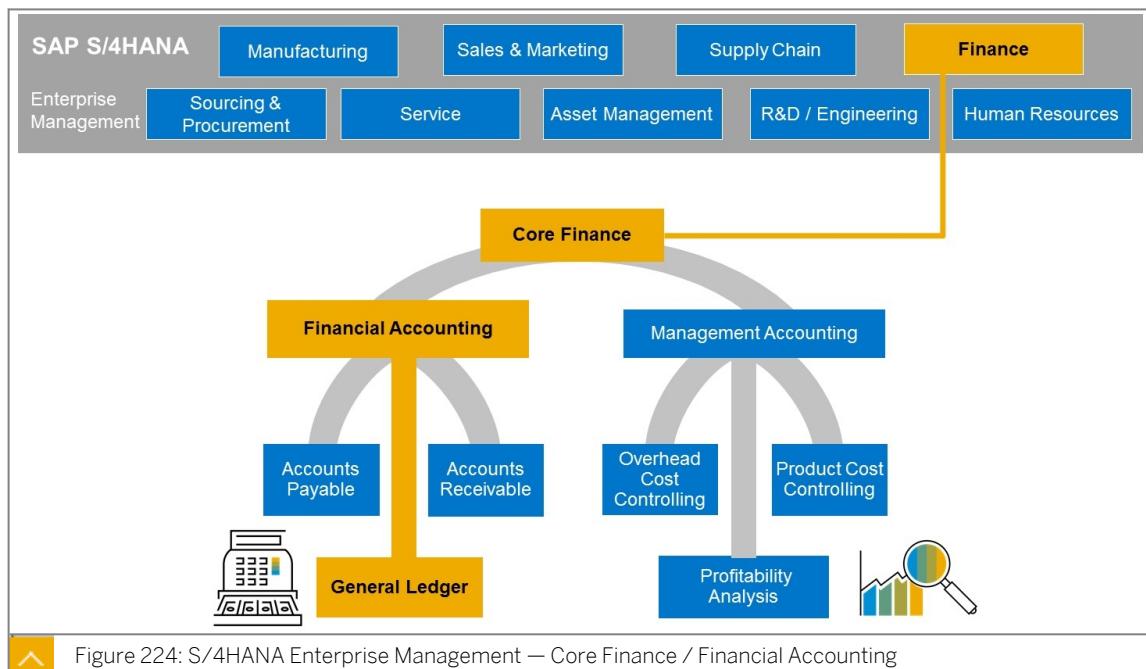


Figure 224: S/4HANA Enterprise Management – Core Finance / Financial Accounting

### Business Example

As a member of the finance department of your company, you already followed the way of the logistic invoice into the accounts receivable area of financial accounting.

Now you need to understand how the values from the accounts receivables subledger are transferred into your financial statement.

1. Display the master record of the G/L account **12100000**, which you identified earlier as reconciliation account for your customer and check whether it is correctly set up as a reconciliation account for customers and in the context of which financial statement version it is used.

To display the data, use the chart of the account **YCOA** and the SAP Fiori app *Manage G/L Account Master Data*.

# Unit 5

## Solution 18

## Understand Reconciliation Accounts



Simulation: Understand Reconciliation Accounts

For more information on *Understand Reconciliation Accounts*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

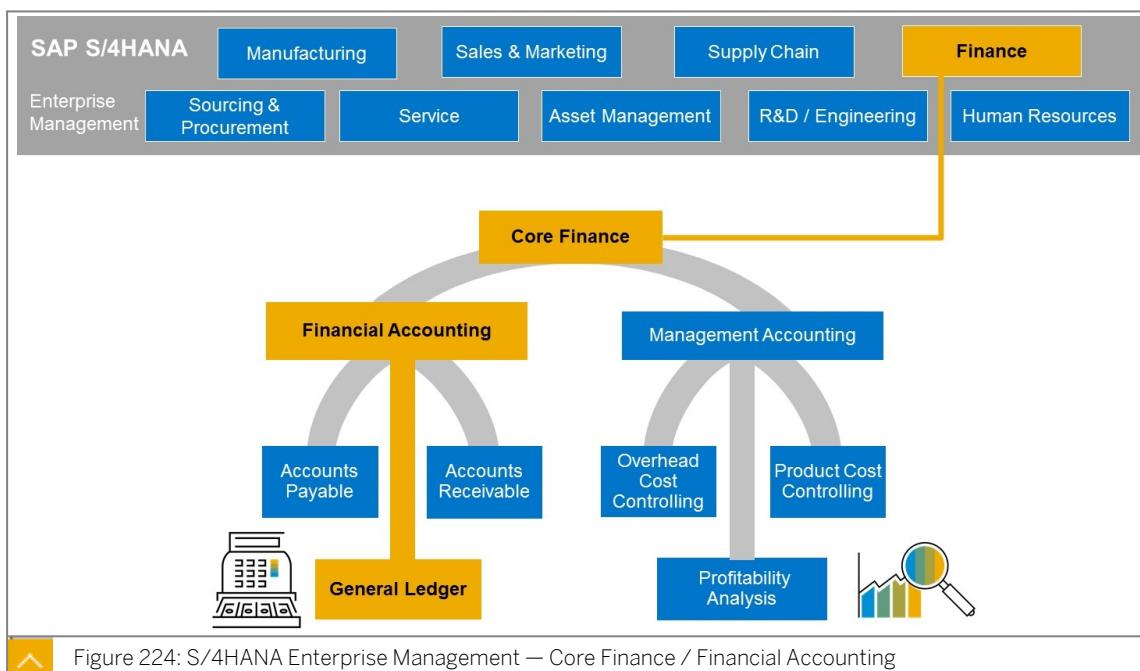


Figure 224: S/4HANA Enterprise Management — Core Finance / Financial Accounting

### Business Example

As a member of the finance department of your company, you already followed the way of the logistic invoice into the accounts receivable area of financial accounting.

Now you need to understand how the values from the accounts receivables subledger are transferred into your financial statement.

1. Display the master record of the G/L account **12100000**, which you identified earlier as reconciliation account for your customer and check whether it is correctly set up as a reconciliation account for customers and in the context of which financial statement version it is used.

To display the data, use the chart of the account **YCOA** and the SAP Fiori app *Manage G/L Account Master Data*.

- a) In the SAP Fiori launchpad home page, choose the *S4H00 — Financial Accounting — General Ledger* tile group and start the SAP Fiori app *Manage G/L Account Master Data*.

- b) Enter the following data:

Field Name or Data Type	Value
Chart of Accounts	<b>YCOA</b>
G/L Account	<b>12100000</b>

- c) Choose Go.

You see the G/L Account **12100000**.

- d) Use the  icon at the right side of the corresponding line with the *G/L Acct*

*External ID* to display the detailed information of the account.

- e) In the *G/L Account Master Data* screen, scroll down to *Company Code Data*.

- f) Use the  icon at the right side of the corresponding line with the *Controlling Area A000* and *Company Code 1010* to view the company code specific segment of this account.

You see that the account is set up as a **Recon. Account for Account Type: D (Customers)**.

- g) Choose  Back to return to the chart of accounts data segment of the account.

- h) Scroll down to *Where Used*.

You see the financial statement versions in which the account is used.

The account is used, for example, in the *Financial Statement Version 1010* and can be found underneath the parent item *Residual maturity less 1 year*.

- i) Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.



# Unit 5

## Exercise 19

## Display a Balance Sheet / Income Statement



Simulation: Display a Balance Sheet / Income Statement

For more information on *Display a Balance Sheet / Income Statement*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

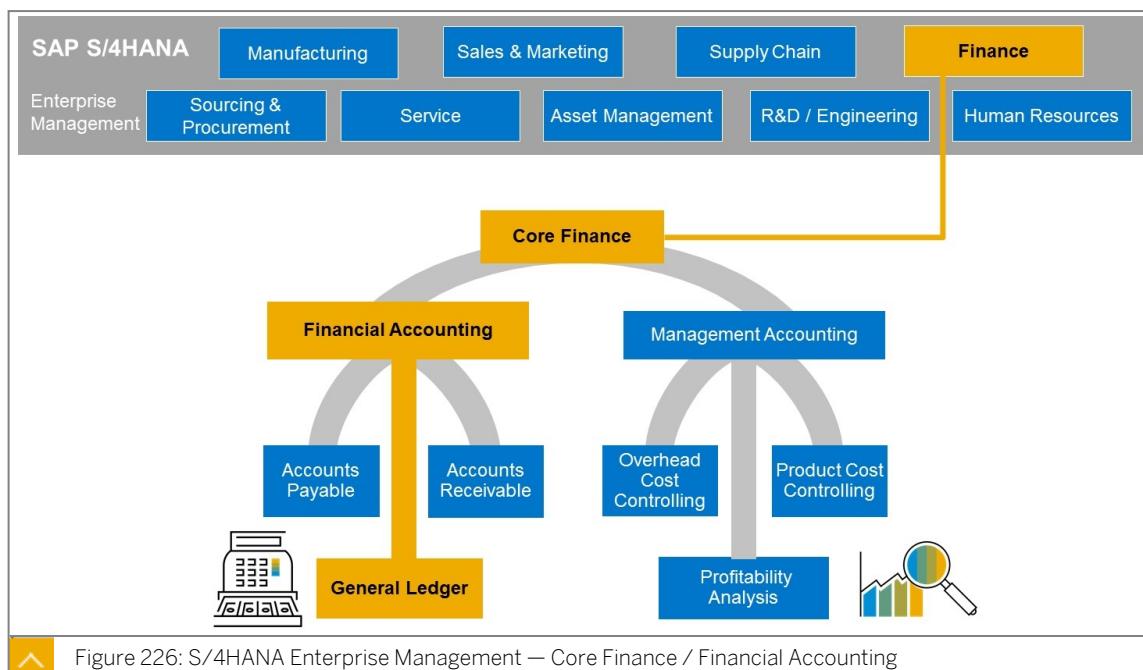


Figure 226: S/4HANA Enterprise Management — Core Finance / Financial Accounting

### Business Example

After understanding the connection between the general ledger and the subledgers you, as a member of the finance department of your company, now want to understand the full impact of integration within SAP S/4HANA.

1. Display the Balance Sheet/Income Statement for company code **1010** and find the reconciliation account **12100000**.

To display the Balance Sheet/Income Statement, use the Ledger **01** and Statement Version **1010** and the SAP Fiori app *Balance Sheet / Income Statement*.

From the display of the Balance Sheet/Income Statement, drill down to the document that was posted in FI and find out which documents originally caused the values in the Balance Sheet/Income Statement.

# Unit 5

## Solution 19

### Display a Balance Sheet / Income Statement



Simulation: Display a Balance Sheet / Income Statement

For more information on *Display a Balance Sheet / Income Statement*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

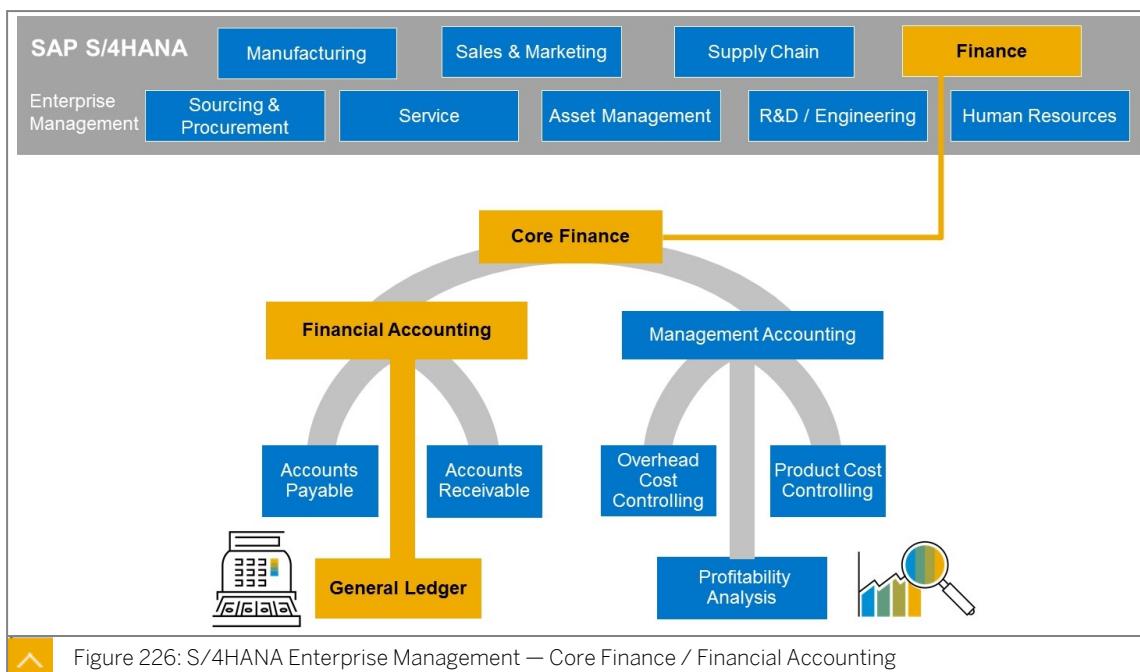


Figure 226: S/4HANA Enterprise Management — Core Finance / Financial Accounting

#### Business Example

After understanding the connection between the general ledger and the subledgers you, as a member of the finance department of your company, now want to understand the full impact of integration within SAP S/4HANA.

1. Display the Balance Sheet/Income Statement for company code **1010** and find the reconciliation account **12100000**.

To display the Balance Sheet/Income Statement, use the Ledger **01** and Statement Version **1010** and the SAP Fiori app *Balance Sheet / Income Statement*.

From the display of the Balance Sheet/Income Statement, drill down to the document that was posted in FI and find out which documents originally caused the values in the Balance Sheet/Income Statement.

- a) In the SAP Fiori launchpad home page, choose the *S4H00 – Financial Accounting – General Ledger* tile group and start the SAP Fiori app *Balance Sheet / Income Statement*.

- b) Enter the following data:

Field Name or Data Type	Value
Company Code	1010
Ledger	OL
Statement Version	1010

- c) Choose Go.



Note:

Check the entry in the *Currency* field.

If there is no entry in the *Currency* field, clear the filter for *Company Code*, choose *Enter*, and then choose the company code **1010** and currency **EUR**.

You see the full Balance Sheet/Income Statement for the 1010 company code.

Switching to *Profit & Loss* would show you only the Profit and Loss accounts within the statement version.

Switching to *Balance Sheet* would show you only the Balance Sheet.

- d) Drill down the Assets side:

*Assets* → *B. Current assets* → *II: Receivables and other assets* → *1. Accounts receivable* → *Residual maturity less 1 year*.

Find the reconciliation account (G/L Account) **12100000**.

- e) Choose the amount displayed in the **Period Balance** column of the reconciliation account (G/L Account) **12100000** and choose **Display G/L Balances** from the available options.

You can see the balance on this account.

- f) Choose the amount shown in the *Debit* column of the current period.

Expand *Company Code: 1010 – Company Code 1010*, then *G/L Account: 12100000 – Trade Receivables Domestic*.

You see the line items that sum up to the balance on this account.

- g) Find the *Journal Entry* that you posted, click the *Journal Entry* number and, after ensuring that it is really your *Journal Entry*, click **Manage Journal Entries**.



Hint:

To make it easier to find your journal entry you could include the user name (**Journal Entry Created By**) of the user who posted the journal entry into the displayed table.

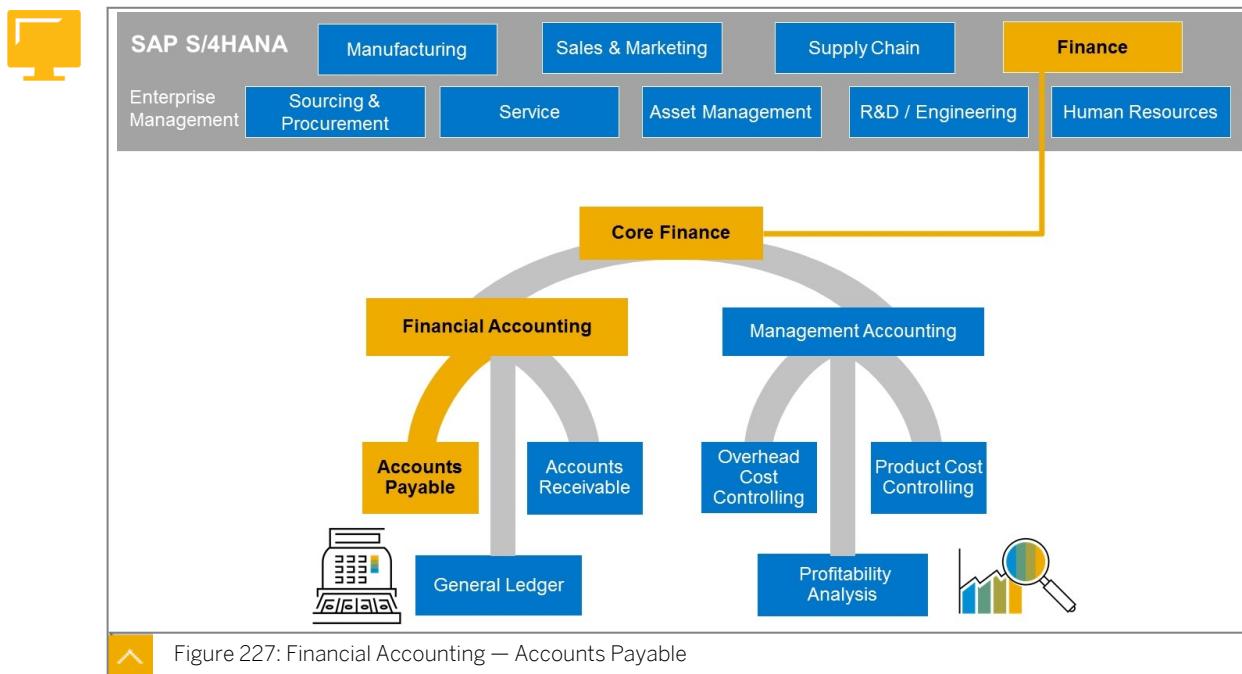
The accounts receivable line item of the journal entry is displayed.

- h) Choose *Back to Journal Entry* at the bottom part of the screen to see the full journal entry.

i) Choose *Related Documents* to get an overview of all the documents that lead to the value we found in the financial statement.

j) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

## Accounts Payable



Accounts Payable Accounting (FI-AP) records all business transactions that have to do with relationships to suppliers.

In practice, FI-AP has close connection with Materials Management (LO-MM). You can record supplier information in FI with the (logistic) transactions purchase order, goods receipt, and invoice receipt.

General Ledger Accounting often contains only collective postings. In such cases, you can post data in different ways in subledgers, which pass on their data, compressed, to General Ledger Accounting.

The screenshot shows the SAP Fiori app 'Enter Vendor Invoice' for Company Code 1010. The main area displays basic data like Vendor (T-AV40), Invoice date (05.01.2022), and Amount (1.210,00 EUR). A detailed table below lists items with G/L acct, Short Text, D/C, Amount in doc.curr., Tax code, Text, Cost center, Order, Profit center, and Accrual Object. The table shows multiple rows for 'Other Maintenance' with various tax codes and cost centers. At the bottom right, there are 'Post' and 'Cancel' buttons.

Figure 228: Create an Accounting Document for a Vendor Invoice

If vendor invoices are not created from within the materials management part of the SAP S/4HANA system they can be created directly in FI.

The figure, *Create an Accounting Document for a Vendor Invoice*, shows the SAP Fiori app *Create Incoming Invoices*, which can be used to enter invoices manually, directly in the Finance application.

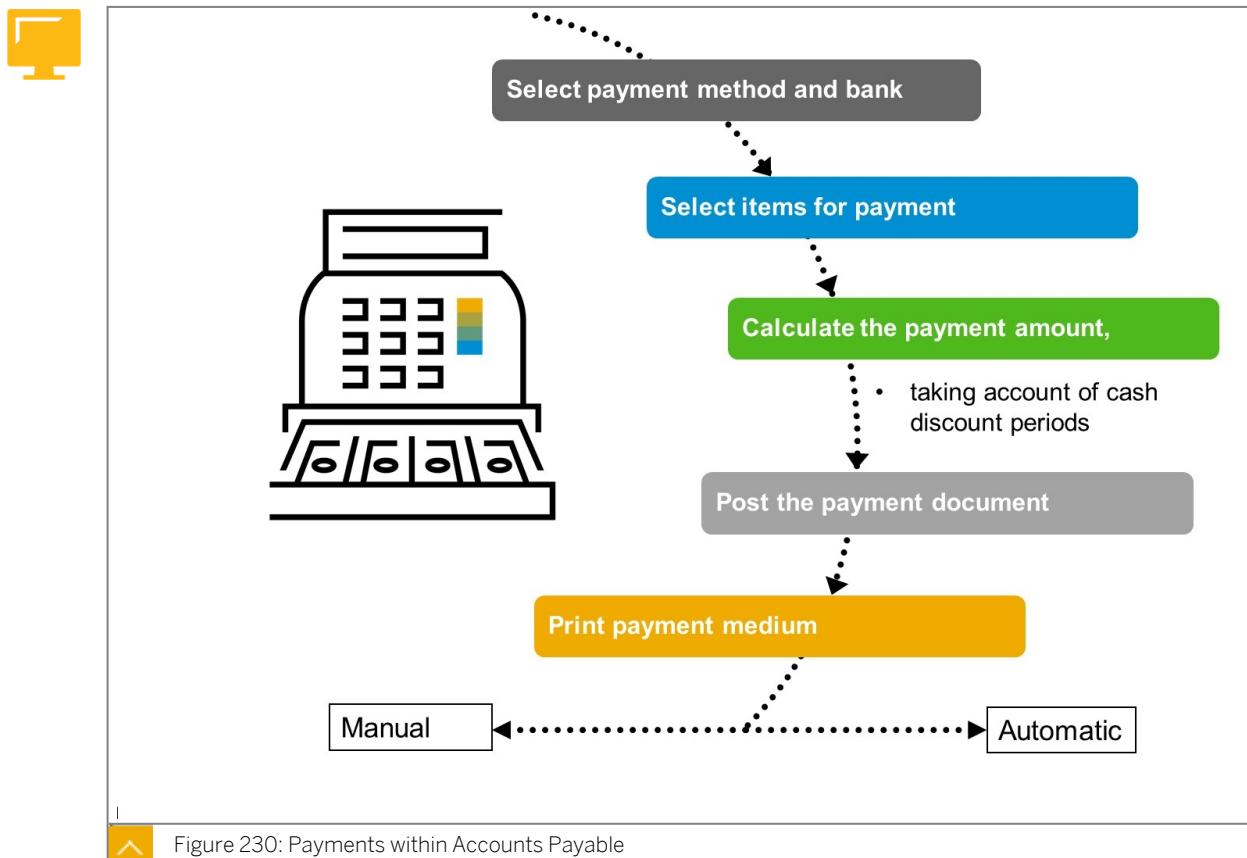
#### Detailed Information on AP Accounts

The screenshot shows the SAP Fiori app 'Detailed Information on AP Accounts'. It includes three main sections: 'Vendor XYZ' (line items for Doc. No 190001, 190005, 190006 with amounts 220.00, 550.00, 330.00 EUR totaling 1,100.00 EUR), 'Vendor ABC' (line items for Doc. No 190002, 190003, 150001 with amounts 660.00, 550.00, 550.00 EUR totaling 660.00 EUR), and 'Vendor ....'. To the right, 'Accumulated Information' displays account numbers (160000), company code (AA00), fiscal year (YYYY), and a balance sheet table for periods 01-04. The balance sheet shows debit and credit amounts and a final balance of 1,760.00 EUR.

Figure 229: Detailed Information on AP Accounts

There are several different possibilities to gain information on an AP account, for example, a line item display and a balance display.

### Payments within Accounts Payable



Payments are usually triggered and posted during the automatic payment run, but it is also possible to post manual payments.

Independent of a manual or automatic posting, the user or the system has to determine how the posting is made (payment method), which bank should be used for the payment, and which amount is to be paid after taking possible cash discounts into account.

After all this has been decided, the payment document is posted and the payment medium is printed.



Animation: Payments within Accounts Payable

For more information on *Payments within Accounts Payable*, please view the animation in the lesson *Using Financial Accounting (FI)* in your online course.



# Unit 5

## Exercise 20

## Work with Accounts Payable



Simulation: Work with Accounts Payable

For more information on *Work with Accounts Payable*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

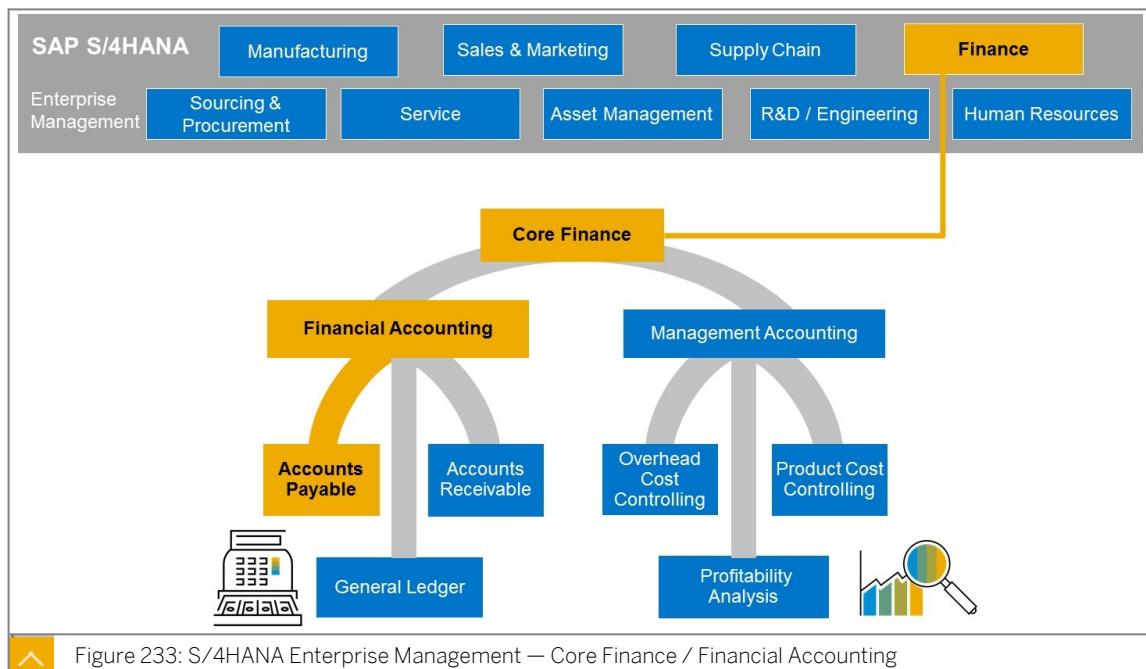


Figure 233: S/4HANA Enterprise Management — Core Finance / Financial Accounting

### Business Example

As a member of the finance department of your company, you also need to understand the integration of accounts payable with general ledger accounting, materials management, and management accounting within SAP S/4HANA.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Display the result of the purchase order you created earlier in this training. The invoice has been forwarded to financial accounting.

Use the SAP Fiori app *Display Supplier Balances* to show the balance of the supplier **T-AV##** and drill down to the original supplier invoice document.

Write down the number of the accounting document associated with the supplier invoice.

Number of the accounting document: \_\_\_\_\_

2. One week ago, you also received an invoice for a delivered service without a purchase order.

Use the SAP Fiori app *Create Incoming Invoice* to enter an invoice in financial accounting directly, using the following data.

Field Name or Data Type	Value
Company Code	1010
Vendor	T-AV## (## = your group number)
Invoice date	Today minus 7 days
Posting Date	Today
Amount	1210
Calculate Tax	Check
Tax code	1I
G/L acct	63003000
Amount in doc. curr.	1210
Cost center	T-CCA## (## = your group number)

If necessary, choose G/L acct **63003000** and *Chart of Accounts YOCA*.

Write down the journal entry number.

Journal entry number: \_\_\_\_\_

After you have posted the document, display the supplier balances again.

3. After posting the invoice, you post a outgoing payment.

Use the SAP Fiori app *Post Outgoing Payments* to post the payment for the original invoice posted from within material management (S4H00, Unit 4, Lesson 1) for the **T-AV##** supplier within company code **1010** using the following data.

Field Name or Data Type	Value
Company Code	1010
Posting Date	Today
Journal Entry Date	Today
Value Date	Today
Journal Entry Type	KZ (Vendor payment)
G/L Account	11100000
Amount/Currency	2320,50 EUR
Account Type/Account ID	Supplier T-AV## (## = your group number)

4. Analyze the impact of your payment on the supplier line items.

Use the SAP Fiori app *Manage Supplier Line Items* to display the open and cleared items of your supplier **T-AV##**.

# Unit 5

## Solution 20

### Work with Accounts Payable



Simulation: Work with Accounts Payable

For more information on *Work with Accounts Payable*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

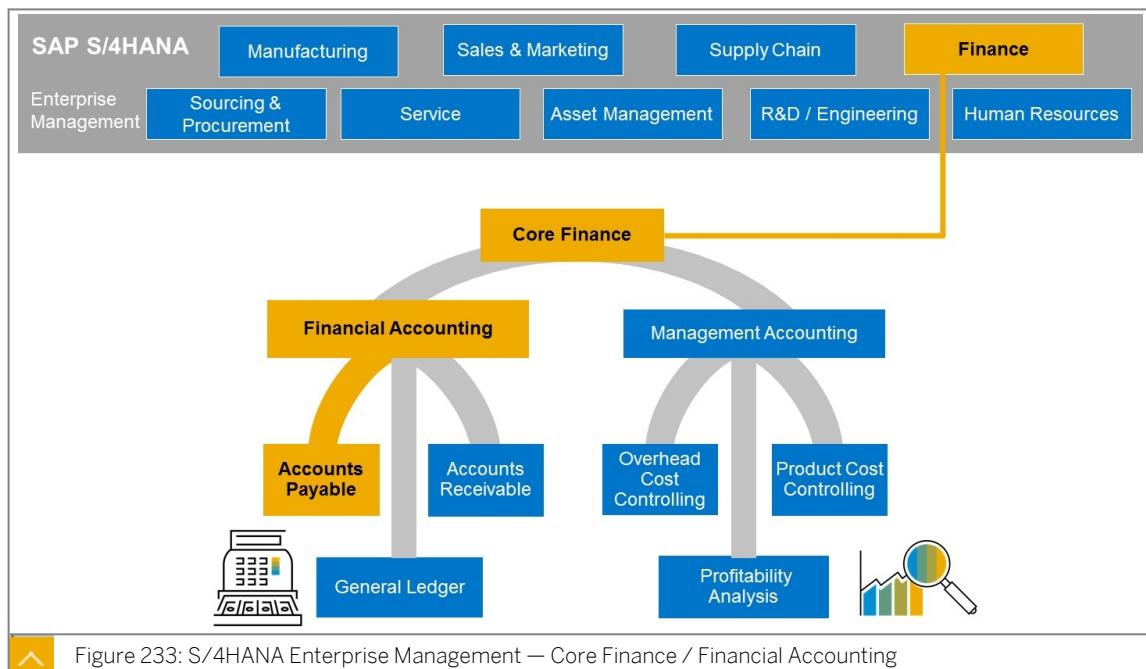


Figure 233: S/4HANA Enterprise Management — Core Finance / Financial Accounting

#### Business Example

As a member of the finance department of your company, you also need to understand the integration of accounts payable with general ledger accounting, materials management, and management accounting within SAP S/4HANA.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Display the result of the purchase order you created earlier in this training. The invoice has been forwarded to financial accounting.  
Use the SAP Fiori app *Display Supplier Balances* to show the balance of the supplier **T-AV##** and drill down to the original supplier invoice document.  
Write down the number of the accounting document associated with the supplier invoice.  
Number of the accounting document: \_\_\_\_\_

- a) In the SAP Fiori launchpad home page, choose the *S4H00 – Financial Accounting – Accounts Payable* tile group and start the SAP Fiori app *Display Supplier Balances*.

- b) Enter the following data:

Field Name or Data Type	Value
Supplier	<b>T-AV##</b> (## = your group number)
Company Code	<b>1010</b>
Fiscal Year	Current year

- c) Choose Go.  
The balance of your supplier is displayed.
- d) Click the amount in the credit column of the current period.  
The line items of your supplier are displayed.
- e) Write down the number of the accounting document (Journal Entry) associated with the supplier invoice in the space provided above.
- f) Choose the document number (Journal Entry) of the accounting document.
- g) Choose the document number.
- h) Choose *Back to Journal Entry* at the bottom part of the screen to see the full journal entry.
- i) Choose *Related Documents*.
- j) Expand the node *Incoming Invoice*.
- k) Choose *Purchase Order* to find the link to the original purchase order and the connected invoice number directly above.

l) Choose



(SAP Logo) to go back to the SAP Fiori launchpad home page.

2. One week ago, you also received an invoice for a delivered service without a purchase order.

Use the SAP Fiori app *Create Incoming Invoice* to enter an invoice in financial accounting directly, using the following data.

Field Name or Data Type	Value
Company Code	<b>1010</b>
Vendor	<b>T-AV##</b> (## = your group number)
Invoice date	Today minus 7 days
Posting Date	Today
Amount	<b>1210</b>
Calculate Tax	Check
Tax code	<b>11</b>

Field Name or Data Type	Value
G/L acct	<b>63003000</b>
Amount in doc. curr.	<b>1210</b>
Cost center	<b>T-CCA##</b> (## = your group number)

If necessary, choose G/L acct **63003000** and Chart of Accounts **YOC**A.

Write down the journal entry number.

Journal entry number: \_\_\_\_\_

After you have posted the document, display the supplier balances again.

- a) In the SAP Fiori launchpad home page, choose the *S4H00 — Financial Accounting — Accounts Payable* tile group and start the SAP Fiori app *Create Incoming Invoice*. If the *Company Code* dialog box appears, enter the company code **1010** and choose *Continue*.

- b) Enter the data provided in the table:

Field Name or Data Type	Value
Vendor	<b>T-AV##</b> (## = your group number)
Invoice date	Today minus 7 days
Posting Date	Today
Amount	<b>1210</b>
Calculate Tax	Check
Tax code	<b>1I</b>
G/L acct	<b>63003000</b>
Amount in doc. curr.	<b>1210</b>
Cost center	<b>T-CCA##</b> (## = your group number)

If necessary, choose G/L acct **63003000** and Chart of Accounts **YOC**A.

Confirm any messages with *Enter*.

- c) Choose *Post* in the bottom part of the screen.

Confirm any messages with *Enter*.

System message: Document ..... was posted in company code 1010.

You have posted an invoice.

- d) Write down the journal entry number of your invoice in the space provided above.

- e) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

- f) In the SAP Fiori launchpad home page, choose the *S4H00 — Financial Accounting — Accounts Payable* tile group and start the SAP Fiori app *Display Supplier Balances*.

g) Enter the following data:

Field Name or Data Type	Value
Supplier	T-AV## (## = your group number)
Company Code	1010
Fiscal Year	Current year

h) Choose Go.

The balance of your supplier is displayed.

- i) Choose the *Amount* in the credit column of the current period.  
Two line items are displayed.

j) Choose



(SAP Logo) to go back to the SAP Fiori launchpad home page.

3. After posting the invoice, you post a outgoing payment.

Use the SAP Fiori app *Post Outgoing Payments* to post the payment for the original invoice posted from within material management (S4H00, Unit 4, Lesson 1) for the **T-AV##** supplier within company code **1010** using the following data.

Field Name or Data Type	Value
Company Code	1010
Posting Date	Today
Journal Entry Date	Today
Value Date	Today
Journal Entry Type	KZ (Vendor payment)
G/L Account	11100000
Amount/Currency	2320,50 EUR
Account Type/Account ID	Supplier T-AV## (## = your group number)

a) In the SAP Fiori launchpad home page, choose the *S4H00 – Financial Accounting – Accounts Payable* tile group and start the SAP Fiori app *Post Outgoing Payments*.

b) Enter the data provided in the table:

Field Name or Data Type	Value
Company Code	1010
Posting Date	Today
Journal Entry Date	Today
Value Date	Today
Journal Entry Type	KZ (Vendor payment)

Field Name or Data Type	Value
G/L Account	11100000
Amount/Currency	2320,50 EUR
Account Type/Account ID	Supplier T-AV## (## = your group number)

- c) Choose *Show Items*.
- d) Choose *Clear* next to the open item with the amount of **EUR 2320,50**.
- e) Choose *Post* in the bottom part of the screen.
- f) System message: Journal entry ..... posted successfully.
- g) Choose *Display* in the following dialog box.
- h) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

**4. Analyze the impact of your payment on the supplier line items.**

Use the SAP Fiori app *Manage Supplier Line Items* to display the open **and** cleared items of your supplier **T-AV##**.

- a) In the SAP Fiori launchpad home page, choose the *S4H00 — Financial Accounting — Accounts Payable* tile group and start the SAP Fiori app *Manage Supplier Line Items*.
- b) Enter the following data:

Field Name or Data Type	Value
Supplier	<b>T-AV##</b> (## = your group number)
Company Code	<b>1010</b>
Status	<b>All Items</b>

- c) Choose *Go*.  
You see one open item and two cleared items.
- d) Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.



## Unit 5 Exercise 21

# Understand the Impact of Accounts Payable on the Balance Sheet / Income Statement



Simulation: Understand the Impact of Accounts Payable on the Balance Sheet / Income Statement

For more information on *Understand the Impact of Accounts Payable on the Balance Sheet / Income Statement*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.

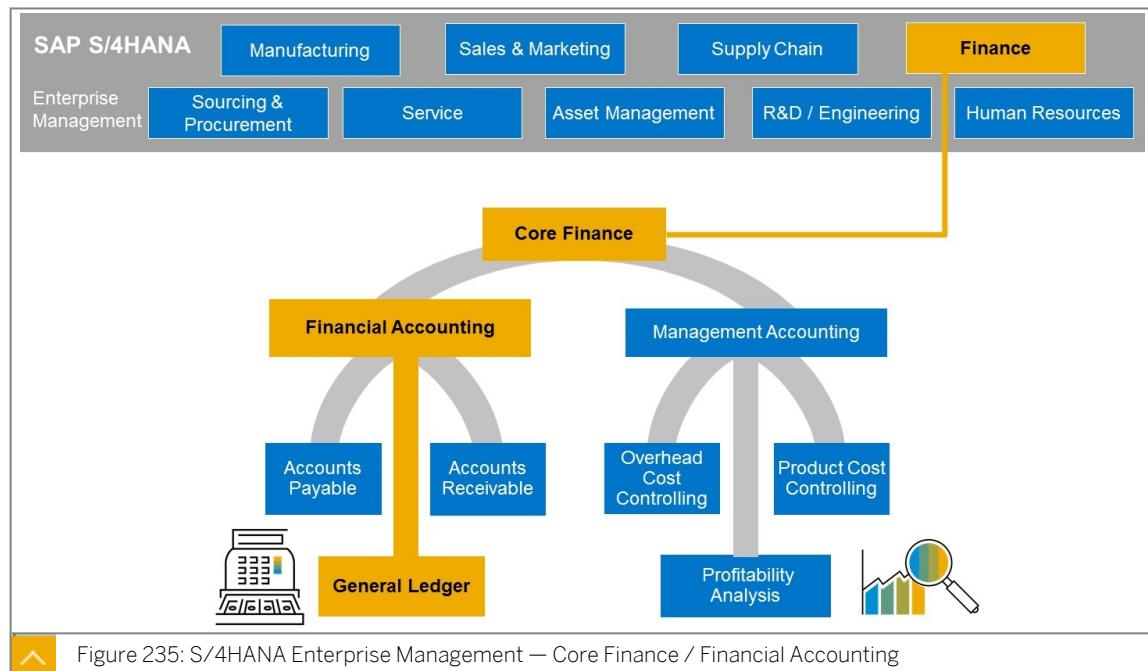


Figure 235: S/4HANA Enterprise Management — Core Finance / Financial Accounting

### Business Example

You want to understand the integration of invoice and purchase order within SAP S/4HANA.

1. Display the Balance Sheet/Income Statement for the company code **1010**, find the reconciliation account **21100000**, and drill down from the Balance Sheet/Income Statement to the FI invoice document.

To display the Balance Sheet/Income Statement, use the ledger **01** and statement version **1010** and the SAP Fiori app *Balance Sheet/Income Statement*.

From the Balance Sheet/Income Statement, drill down to the original purchase order.

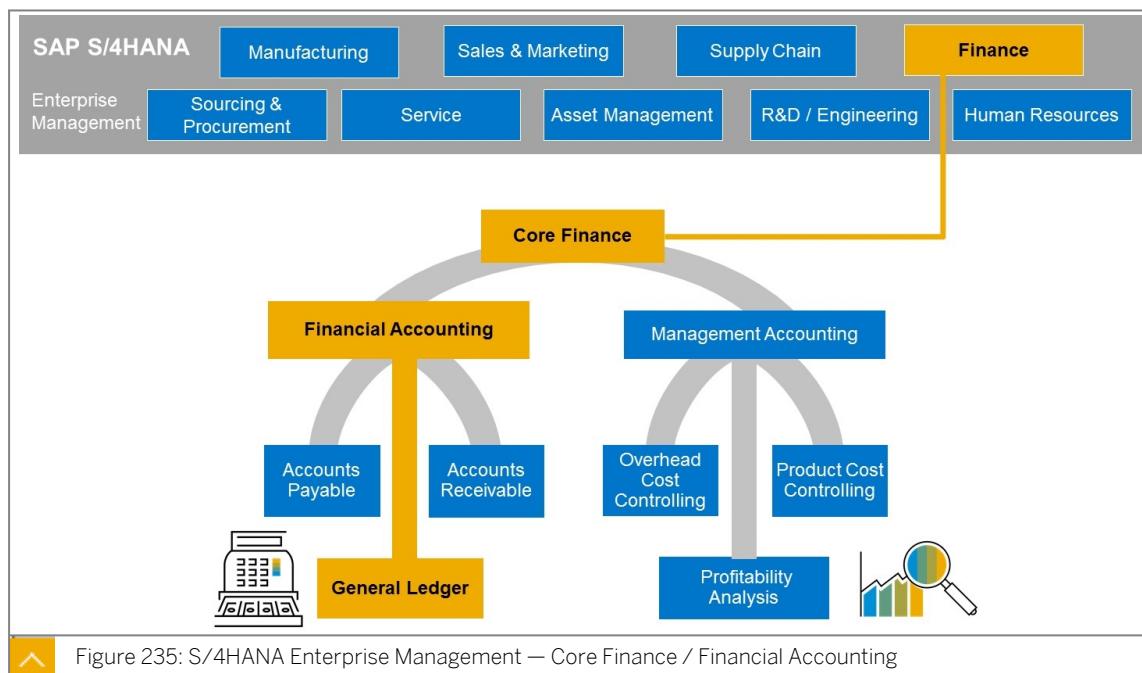
## Unit 5 Solution 21

# Understand the Impact of Accounts Payable on the Balance Sheet / Income Statement



Simulation: Understand the Impact of Accounts Payable on the Balance Sheet / Income Statement

For more information on *Understand the Impact of Accounts Payable on the Balance Sheet / Income Statement*, please view the simulation in the lesson *Using Financial Accounting (FI)* in your online course.



### Business Example

You want to understand the integration of invoice and purchase order within SAP S/4HANA.

1. Display the Balance Sheet/Income Statement for the company code **1010**, find the reconciliation account **21100000**, and drill down from the Balance Sheet/Income Statement to the FI invoice document.

To display the Balance Sheet/Income Statement, use the ledger **01** and statement version **1010** and the SAP Fiori app *Balance Sheet/Income Statement*.

From the Balance Sheet/Income Statement, drill down to the original purchase order.

- a) In the SAP Fiori launchpad home page, choose the *S4H00 – Financial Accounting – General Ledger* tile group and start the SAP Fiori app *Balance Sheet / Income Statement*.

- b) Enter the following data:

Field Name or Data Type	Value
Company Code	1010
Ledger	OL
Statement Version	1010

- c) Choose Go.



Note:

Check the entry in the *Currency* field.

If there is no entry in the *Currency* field, clear the filter for *Company Code*, and choose *Enter*. Then choose the company code **1010** and currency **EUR**.

You see the full Balance Sheet/Income Statement for company code 1010.

Switching to *Profit & Loss* shows you the Profit and Loss accounts within the statement version.

Switching to *All Accounts* shows you both the Balance Sheet and the Profit and Loss Statement.

- d) In the **Balance Sheet**, drill down the **Liabilities** side until you see the G/L Account **21100000**:

*Liabilities* → *C. Payables* → *4. Accounts payable* → *Residual maturity less 1 year*.

- e) Click the amount displayed in the *Period Balance* column of the G/L Account **21100000**, and choose **Display G/L Balances** from the available options.

You see the balances on this account.

- f) Click the amount shown in *Credit* column of the current period.

Expand *Company Code: 1010 — Company Code 1010*, then *G/L Account: 21100000 — Trade Payables Domestic*.

You see the line items that sum up to the balance on this account.

In the *Clearing Journal Entry* column, you can see a link to the payment you just posted next to the original invoice. We do not want to follow up on this; instead we want to find our purchase order.

- g) Find the **Journal Entry** that was posted with your invoice, choose the **Journal Entry** number and, after ensuring that it is really your **Journal Entry**, click **Manage Journal Entries**.



Hint:

To make it easier to find your journal entry, you could include the (**Journal Entry Created By**) user name of the user who posted the journal entry into the displayed table.

You see the payment line item of your posting.

h) Choose *Back to Journal Entry* at the bottom part of the screen to see the complete journal entry.

i) Choose *Related Documents* to find all documents that lead to this invoice.

j) Expand *Incoming Invoice*.

k) Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.



## LESSON SUMMARY

You should now be able to:

- Describe the business process in Financial Accounting
- Understand Accounts Receivable
- Describe General Ledger Accounting
- Understand Accounts Payable

## Using Management Accounting (CO)

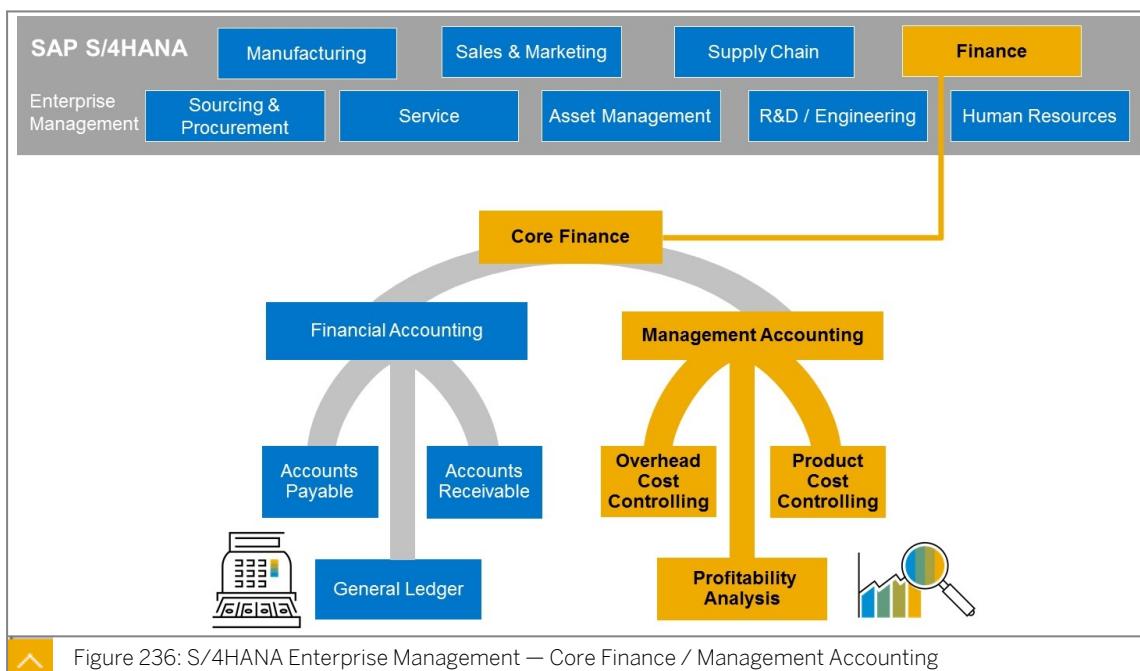


### LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe the business process in Management Accounting

### Overview of Management Accounting



SAP S/4HANA enables the valuation and recording of financial data not only for financial reporting, but also as the basis for all cost-and revenue-related reporting. As a result, analysts and managers can work with the same basic data as the company's financial accountants.

Financial data is tightly integrated with the business processes of the SAP S/4HANA logistics and human resources applications; therefore, users can easily obtain detailed information about cost structures and profit margins. Easy access to this data helps support and enables the management to achieve business goals, such as, increasing revenue, maximizing customer profitability, and reducing operating costs while increasing efficiency, reducing the cost of goods sold, and improving the visibility of inventory.

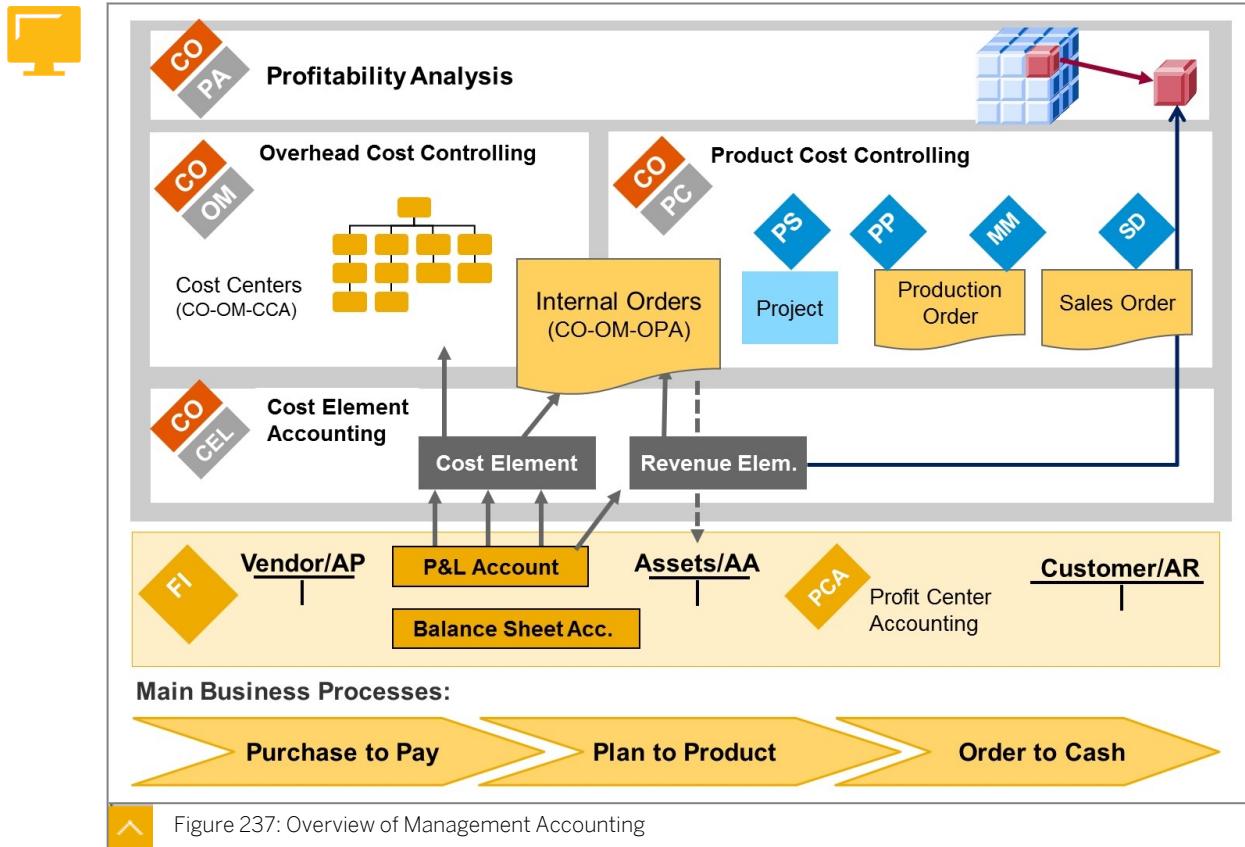


Figure 237: Overview of Management Accounting

The following are the tasks of the displayed controlling objects:

- Cost elements: What kind of costs?
- Cost centers: Where do the costs arise?
- Internal orders, WBS elements, production orders, sales orders: For what do the costs arise?
- Profit centers: In which (balance-sheet-relevant) areas do the costs arise?
- Characteristics of profitability analysis: How profitable is a market segment?



Animation: Overview of Management Accounting

For more information on *Overview of Management Accounting*, please view the animation in the lesson *Using Management Accounting (CO)* in your online course.

### Integration of Legal and Management Reporting

In General Ledger Accounting, you can also perform internal management reporting in parallel with legal reporting. For this purpose, the Profit Center Accounting (PCA) functions are integrated with General Ledger Accounting.

As a result, in General Ledger Accounting, you can generate financial statements for any dimension, just as for the profit center entity.

#### PCA

PCA evaluates the profit or loss of individual and independent areas within an organization. These areas are responsible for their costs and revenues.

### Controlling Applications

CO provides you with information for management decision making. It facilitates coordination, monitoring, and optimization of all processes in an organization. This involves recording both the consumption of production factors and the services provided by an organization.

While controlling documents actual events, the main task of controlling is planning. You can determine variances by comparing actual data with plan data. These variance calculations enable you to control business flows. You can use income statements, such as contribution margin accounting, to control the cost efficiency of individual areas of an organization, as well as the entire organization.

### Controlling Application – Cost (and Revenue) Element Accounting, CO-OM-CCA, and Internal Orders

Cost (and Revenue) Element Accounting provides you with an overview of the costs and revenues that occur in an organization. Most of the values are moved automatically from FI to Controlling. Cost and Revenue Element Accounting only calculates costs that either do not have another expense or have only one expense in FI. Cost and Revenue Element Accounting details the costs and revenues incurred within the organization. Accrual is calculated here for valuation differences and additional costs.

Cost Accounting and FI are also reconciled in Cost Element Accounting. This means that the tasks of Cost and Revenue Element Accounting stretch beyond the bounds of Overhead Cost Controlling.

You use CO-OM-CCA for controlling purposes within your organization. It is useful for a source-related assignment of overhead costs to the location in which they occurred. CO-OM-CCA determines where costs are incurred in the organization. To achieve this aim, costs are assigned to the subareas of the organization where they have the most influence.

By creating and assigning cost elements to cost centers, you not only make cost controlling possible, but also provide data for other application components in Controlling, such as Cost Object Controlling. You can also use a variety of allocation methods for allocating the collected costs of the given cost center(s) to other controlling objects.

To manage overhead costs, you can use internal orders to collect and control costs according to the job that incurred them. You can assign budgets for these jobs, which the system monitors to ensure that the budget is not exceeded.

### Controlling Application – Activity-Based Costing, Product Cost Controlling, and Profitability Analysis

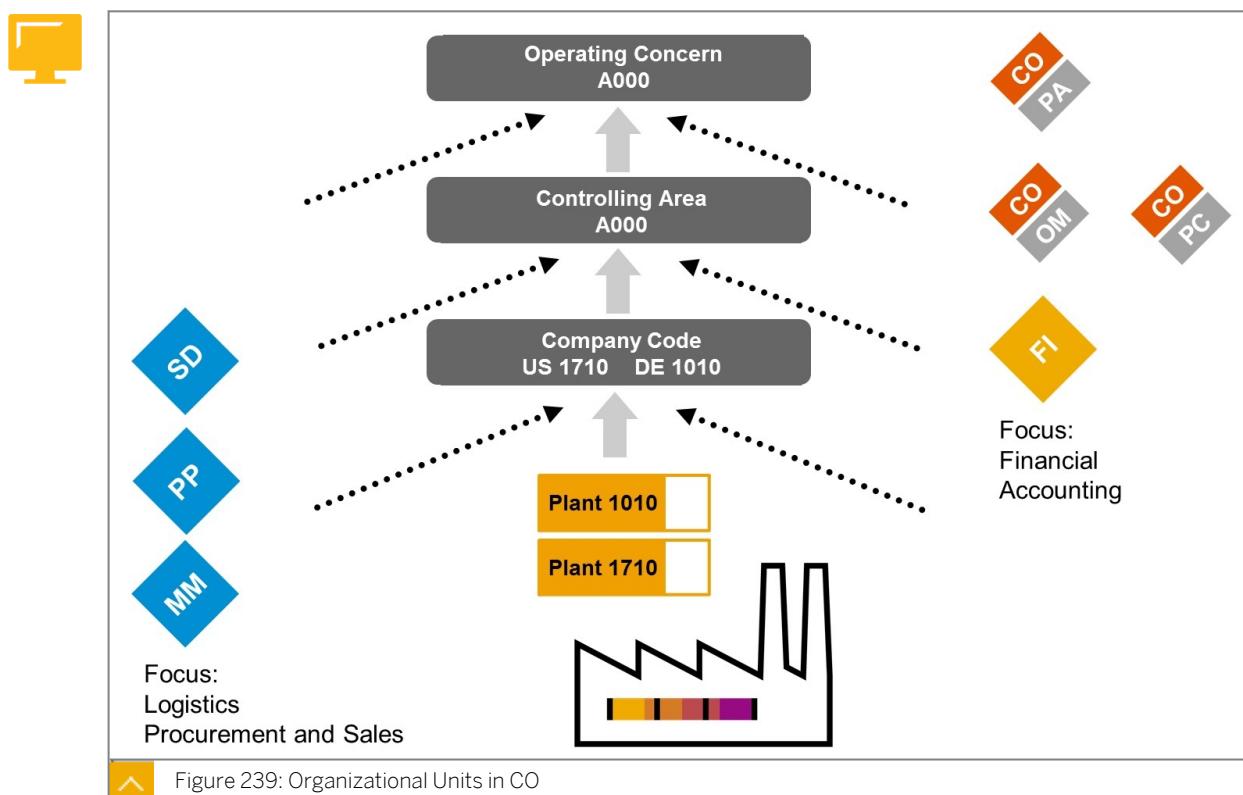
Activity-based costing analyzes cross-departmental business processes. The goals of the whole organization and the optimization of business flows are prioritized. In contrast to the responsibility and function-oriented basis of CO-OM-CCA, activity-based costing provides a transaction-based and cross-functional approach for activity output in which several cost centers are involved. The emphasis is not on cost optimization in individual departments, but the entire organization.

By allocating process quantities based on cost drivers, rather than using overhead calculation, cost allocation along the value chain is more source-based. Activity-based costing enables you to cost products more accurately in the overhead areas.

Product Cost Controlling calculates the costs that occur during the manufacture of a product or provision of a service. It enables you to calculate the minimum price at which a product can be profitably marketed.

Profitability analysis analyzes the profit or loss of an organization by individual market segments. The system allocates the corresponding costs to the revenues for each market segment. Profitability analysis provides a basis for decision making, for example, for price determination, customer selection, conditioning, and for choosing the distribution channel.

### Organizational Units in CO



The operating concern is the highest reporting level for profitability and sales and marketing controlling, and the central organizational unit in Profitability Analysis (CO-PA) used to segment and structure the market.

Controlling areas structure the internal accounting operations of an organization within CO. They represent closed units that are used to calculate costs. All internal allocations relate solely to objects that belong to the same controlling area.

Company codes are independent accounting units within FI. They represent the smallest organizational units for which an account group can be set up for the purposes of external reporting. The process of external reporting involves recording all relevant transactions and generating all supporting documents for financial reports (such as, balance sheets and profit and loss statements).



Animation: Organizational Units in CO

For more information on *Organizational Units in CO*, please view the animation in the lesson *Using Management Accounting (CO)* in your online course.

Profit Centers are organizational units in accounting that reflect a management-oriented structure of the organization for the purpose of internal control. You can analyze operating results for profit centers using either the cost-of-sales or the period accounting approach. By calculating the fixed capital as well, you can use your profit centers as investment centers.

## Master Data in Management Accounting

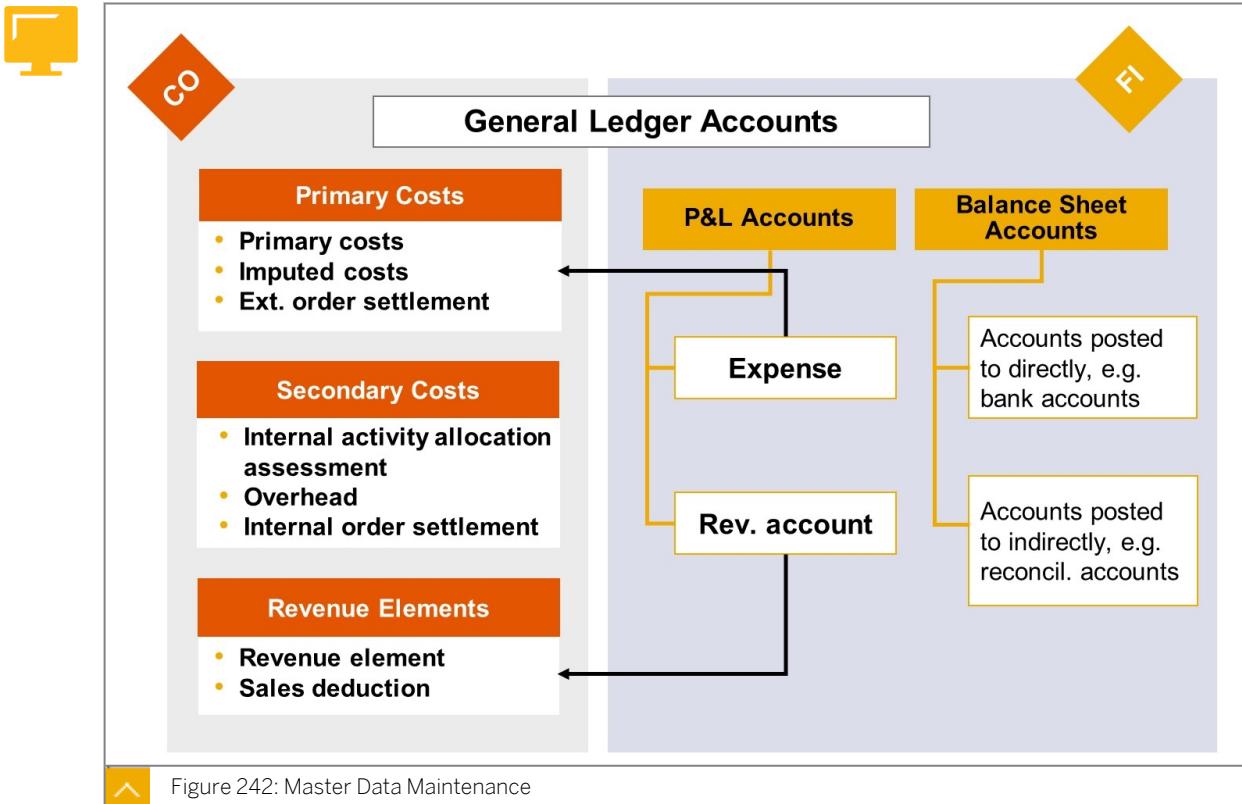
The screenshot shows the SAP G/L Account Centrally interface. On the left, the main window displays account details for G/L Account 65100000 (Office Supplies) under Company Code 1010. A yellow arrow points from the 'G/L Account Type' dropdown (set to 'P Primary Costs or Revenue') to a separate window on the right titled 'Primary Costs or Revenue'. This window lists several account types: C Cash Account, N Nonoperating Expense or Incom, P Primary Costs or Revenue (selected and highlighted in blue), S Secondary Costs, and X Balance Sheet Account. Another yellow arrow points from the 'Primary Costs or Revenue' entry in the list to a detailed view of account settings on the left, specifically the 'Account control in company code' section where 'Alternative Account No.' is set to 680000 (Office supplies). A third yellow arrow points from the 'Primary costs/cost-reducing revenues' entry in the list to the 'Account Settings in Controlling Area A000' section, where it is assigned to the 'CElem category' field. The bottom of the screenshot includes a caption: 'Figure 241: The Cost Element'.

The universal journal contains one field, *Account*, that covers General Ledger accounts and General Ledger accounts of type *Costs*; costs are part of the chart of accounts and maintenance is executed via account master data maintenance.

If you create a General Ledger account that represents costs, you will always have to assign a CO object such as a cost center, a project, an internal order or a CO-PA segment.

Secondary costs are exclusively used in CO to identify internal cost flows such as assessments or settlements.

Reports such as the trial balance will display all posted costs (primary and secondary costs).



With SAP S/4HANA, all business transactions, both external and internal, are recorded on General Ledger accounts.

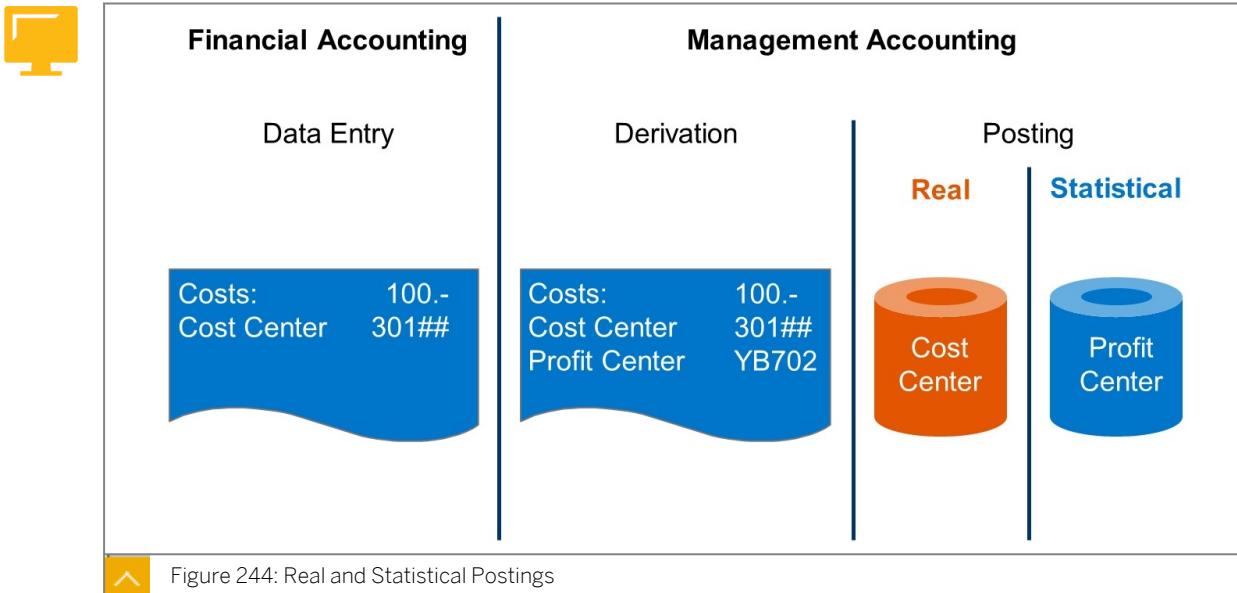
The chart of accounts contains all the General Ledger accounts belonging to FI and CO. General Ledger Accounts which represent CO costs are either set up as General Ledger Account Type Primary Costs or Revenue or as type Secondary Costs. Within these two cost types, the SAP S/4HANA system provides special cost element categories for primary and for secondary costs.



#### Animation: Master Data Maintenance

For more information on *Master Data Maintenance*, please view the animation in the lesson *Using Management Accounting (CO)* in your online course.

### Real and Statistical Postings



#### Animation: Real and Statistical Postings

For more information on *Real and Statistical Postings*, please view the animation in the lesson *Using Management Accounting (CO)* in your online course.

Cost and revenue postings in CO can result in subsequent real and statistical postings as follows:

- Real postings can be processed. They can be allocated or settled with other controlling objects. One (and only one) real posting takes place in CO. The posting contains the information that is transferred to FI for reconciliation.
- Statistical postings are only used for information purposes. You can make as many statistical postings as you wish.

The account assignment object determines whether a posting is real or statistical, in other words, the account assignment is either a real or statistical object. For example, the master data of an overhead cost order is used to determine whether the order is real or statistical. Only real postings are made for a real order, and likewise, only statistical postings are made for a statistical order. The cost center is the exception to this rule. You can make real and statistical postings for a cost center.

If you want to post CO costs, you need to use the source document (for example, from the vendor invoice, or the material withdrawal document) to identify the corresponding real CO account assignment object. You can enter additional statistical objects, or the system can derive them. In this simple example, the cost center is entered in the FI document so that the real CO posting can be made. The system transfers the profit center from the master data for the cost center, for the statistical posting.

You always make statistical postings to the profit center.

# Unit 5

## Exercise 22

## Understand the Integration between FI and CO



Simulation: Understand the Integration between FI and CO

For more information on *Understand the Integration between FI and CO*, please view the simulation in the lesson *Using Management Accounting (CO)* in your online course.

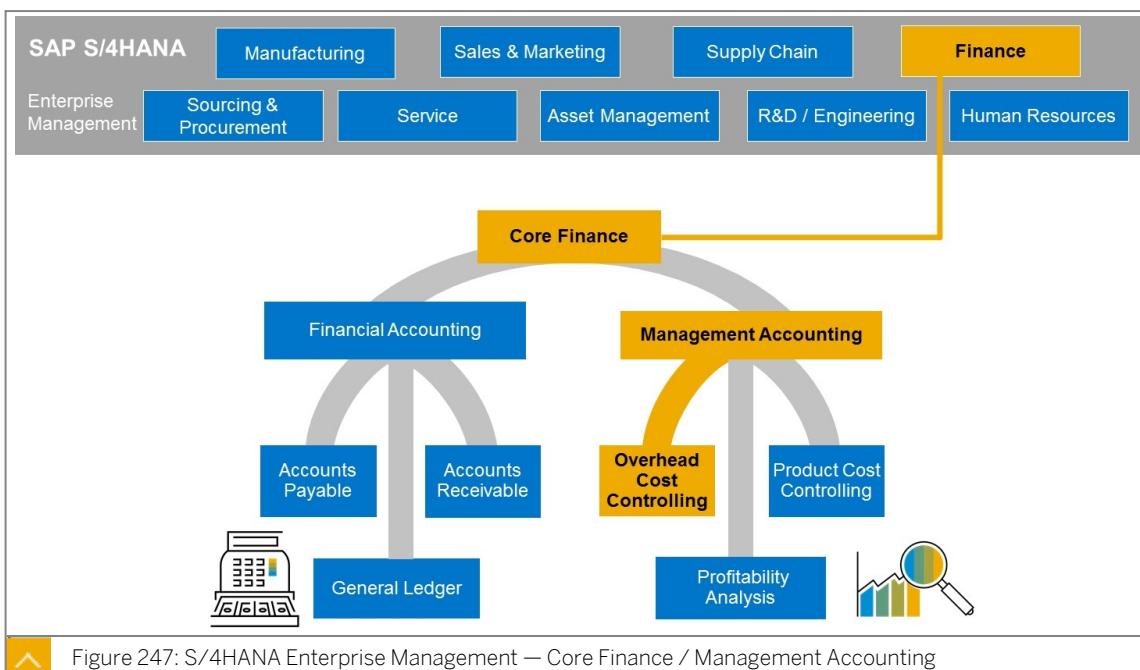


Figure 247: S/4HANA Enterprise Management — Core Finance / Management Accounting

### Business Example

To understand the integration between financial and management accounting you want to see whether values from financial accounting are forwarded to management accounting.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Display the actual values on your cost center **T-CCA##** for the current year to find out whether the costs of your manually posted invoice can be found here.  
Use the *Cost Centers Actuals* SAP Fiori app.

# Unit 5

## Solution 22

## Understand the Integration between FI and CO



Simulation: Understand the Integration between FI and CO

For more information on *Understand the Integration between FI and CO*, please view the simulation in the lesson *Using Management Accounting (CO)* in your online course.

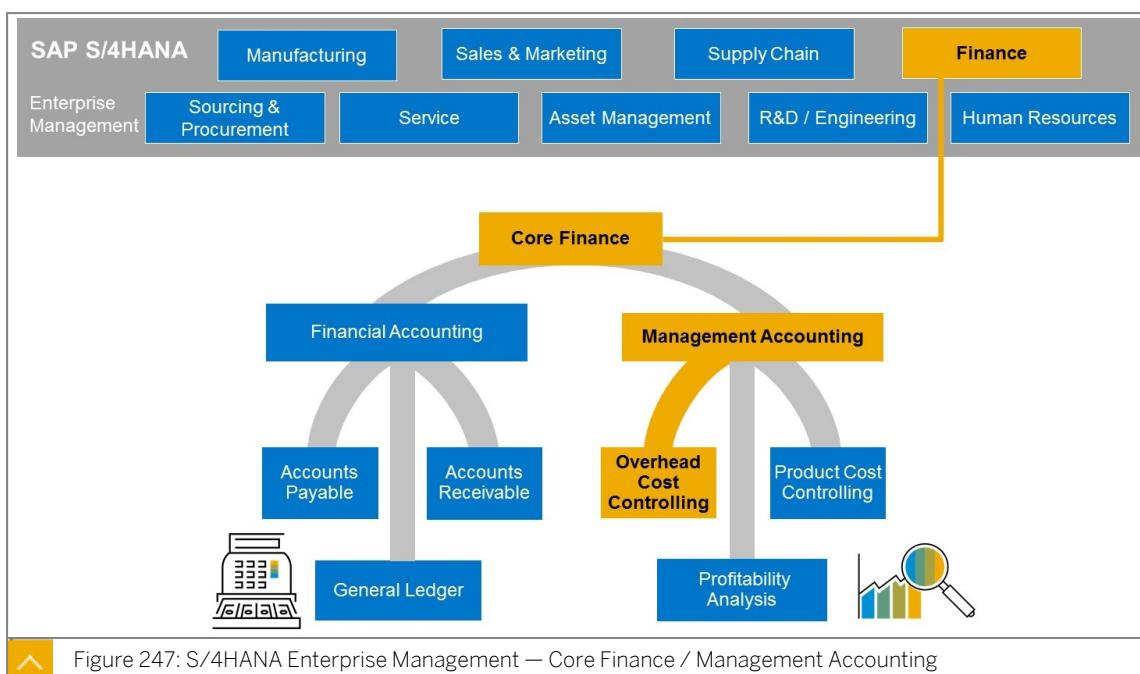


Figure 247: S/4HANA Enterprise Management — Core Finance / Management Accounting

### Business Example

To understand the integration between financial and management accounting you want to see whether values from financial accounting are forwarded to management accounting.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

1. Display the actual values on your cost center **T-CCA##** for the current year to find out whether the costs of your manually posted invoice can be found here.  
Use the *Cost Centers Actuals* SAP Fiori app.
  - a) In the SAP Fiori launchpad home page, choose the *S4H00 – Management Accounting* tile group and start the *Cost Centers Actuals* SAP Fiori app.

- b) Enter the following data:

Field Name or Data Type	Value
Fiscal Year	is Current Year
Cost Center	T-CCA## (### = your group number)

- c) Choose Go.

You see the impact of your invoice on your cost center.

- d) Highlight the value in the *Amt in CO Area Crcy* column and choose *Navigate to* → *Display Line Items in General Ledger*.

- e) Switch the status to *All Items* and choose Go.

- f) Expand *Company Code: 1010 – Company Code 1010*, then Expand *G/L Account: 63003000 – Other Maintenance*.

You see the line item posted by you.

- g) Choose the number of your *Journal Entry* and choose *Manage Journal Entries*.

You see an overview of the whole journal entry.

Choose *Back to Journal Entry* at the bottom part of the screen.

- h) Close the *Manage Journal Entries* browser window.

- i) Choose  (SAP Logo) to navigate back to the SAP Fiori launchpad home page.



## LESSON SUMMARY

You should now be able to:

- Describe the business process in Management Accounting

# Learning Assessment

1. \_\_\_\_\_ is a structure that records value movements in a company code and represents the G/L account items in a chart of accounts.

*Choose the correct answer.*

- A Company code
- B G/L account
- C Journal entry
- D Chart of accounts

2. Which organizational unit in Profitability Analysis (CO-PA) is the highest reporting level for profitability and sales and marketing controlling?

*Choose the correct answer.*

- A Company code
- B Profit center
- C Controlling area
- D Operating concern



## UNIT 6

# Human Capital Management (HCM) and SAP SuccessFactors

### Lesson 1

Using SAP ERP HCM and SAP SuccessFactors

266

Exercise 23: Work with Human Capital Management

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### UNIT OBJECTIVES

- Use SAP ERP HCM and SuccessFactors

# Unit 6

## Lesson 1

# Using SAP ERP HCM and SAP SuccessFactors



## LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Use SAP ERP HCM and SuccessFactors

## Human Capital Management (HCM) and SAP SuccessFactors

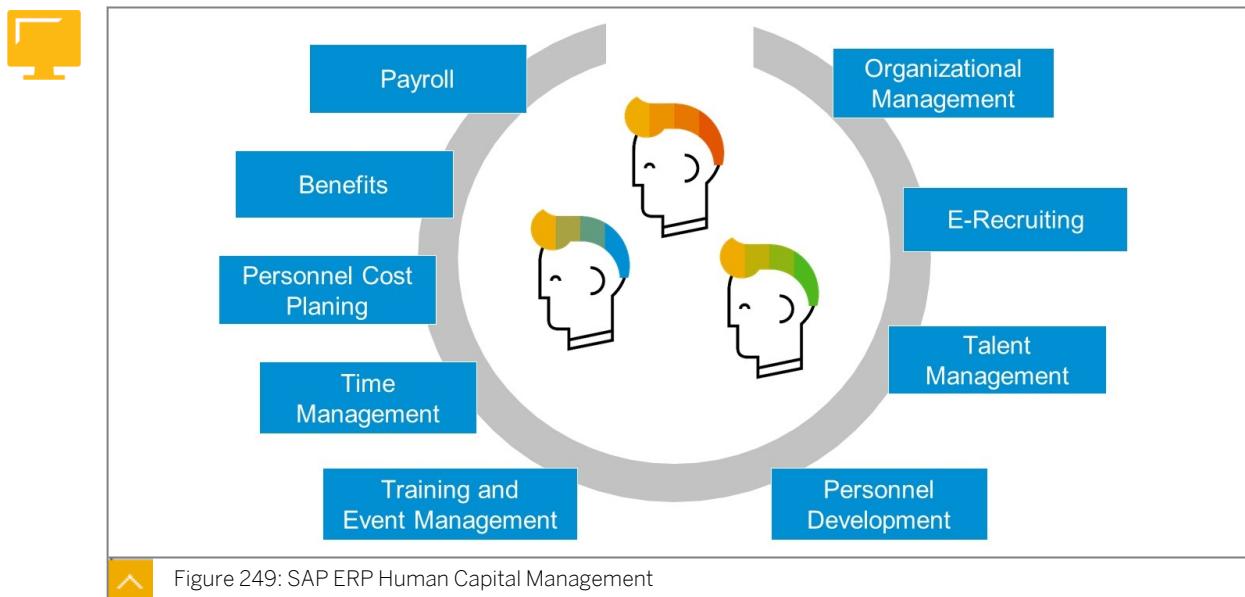


Figure 248: S/4HANA Enterprise Management — Core Human Resources

## Components of SAP ERP Human Capital Management (SAP ERP HCM)

To compete effectively, you need to align all corporate resources, including employees, with business objectives. With SAP ERP Human Capital Management (SAP ERP HCM), you can maximize the value of your employees and align employee skills, activities, and incentives with business objectives and strategies by using tools to manage, measure, and reward individual and team contributions.

In this lesson, you will learn about the basics of SAP ERP Human Capital Management by examining processes in human resources.



#### Animation: SAP ERP Human Capital Management

For more information on *SAP ERP Human Capital Management*, please view the animation in the lesson *Using SAP ERP HCM and SAP SuccessFactors* in your online course.

SAP ERP Human Capital Management includes the following processes and functions:

#### **Organizational Management**

Includes management of the organizational and personnel structures.

#### **E-Recruiting**

Facilitates the management of vacant positions and hiring processes to find the best-qualified people to fill those positions.

#### **Talent Management**

Includes the management of talents and succession management.

#### **Personnel Development**

Includes the development of employee skills.

#### **Training and Event Management**

Offers training courses to enable employees to develop their skills and bridge any gaps between position requirements and their abilities.

#### **Time Management**

Includes the tracking of employee time (attendances and absences).

#### **Personnel Cost Planning**

Facilitates planning activities for budget generation.

#### **Payroll and benefits**

Includes the payment of employees for work done and participation in benefit programs.

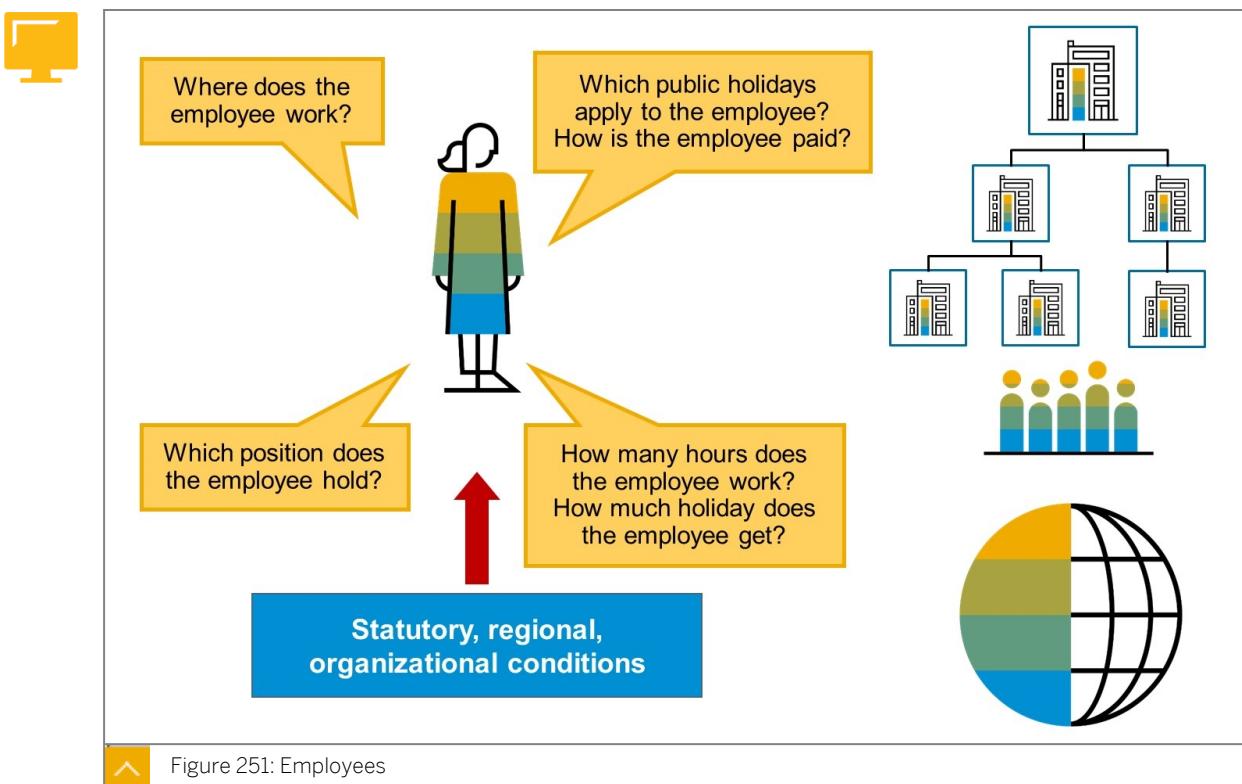
HCM is a company-wide strategy and is not only confined to HCM processes and functions. Your company profits from a large value-added potential and the company's bottom line can be improved.

### Organizational Structure

The structures of an enterprise are subdivided into organizational structures that are based on an organizational plan and administrative structures, which are based on the enterprise and personnel structures.

An organizational plan provides a model of the structural and personnel environment of your enterprise. Hierarchies and reporting structures are clearly laid out. The organizational plan is the foundation of organizational management and uses elements called objects. The most important objects for the organizational plan are organizational units, jobs, and positions.

The enterprise and personnel structures subdivide organizations and employees according to factors relevant to time management and payroll.



SAP ERP Human Capital Management enables you to set up organizational hierarchies and employee relationships, and administer employee data in the system. Employees are linked to the organizational structure by the position they hold and the placement of that position within the structure. Reporting facilitates the evaluation of employee data from all enterprise-specific organizational aspects.

### Organizational Plan

You use organizational management to quickly and effectively map your organizational and reporting structures with the relevant organizational objects. You create an organizational plan, which is a comprehensive and dynamic model of the structural and personnel environment in your enterprise.

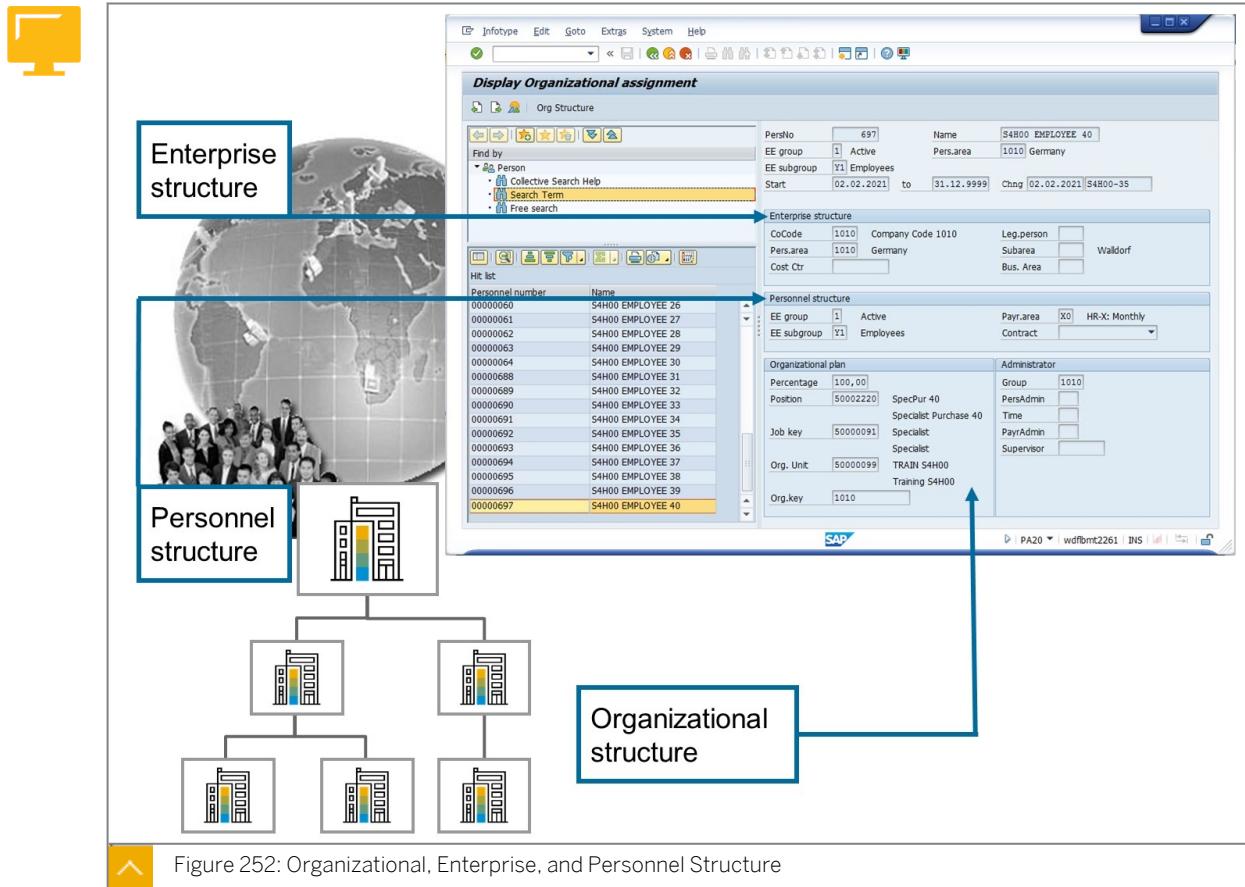


Figure 252: Organizational, Enterprise, and Personnel Structure

Employees are assigned to the organizational, enterprise, and personnel structures on infotype 0001, organizational assignment. When you enter data on this infotype, the employee is assigned to a company code, a personnel area, a position, and a payroll area. This results in the employee's assignment to an organizational unit, a job, and a cost center.

Information on the organizational assignment of employees is very important for authorization checks and for time management and payroll accounting. This assignment is often used to provide administrators access to employee information for the completion of time and payroll activities.

### Key Objects Used in Organizational Management

The following are some of the key objects used in Organizational Management:

#### Organizational units

Organizational units describe the various business units in your organization.

Organizational units could be the departments in your company. Several organizational units, along with their relationships, make up the organizational structure. Organizational units can be divided according to functional or regional criteria, for example.

#### Jobs

Jobs are general descriptions of tasks and requirements. Jobs are used to define positions. An example of a job is "Manager".

#### Positions

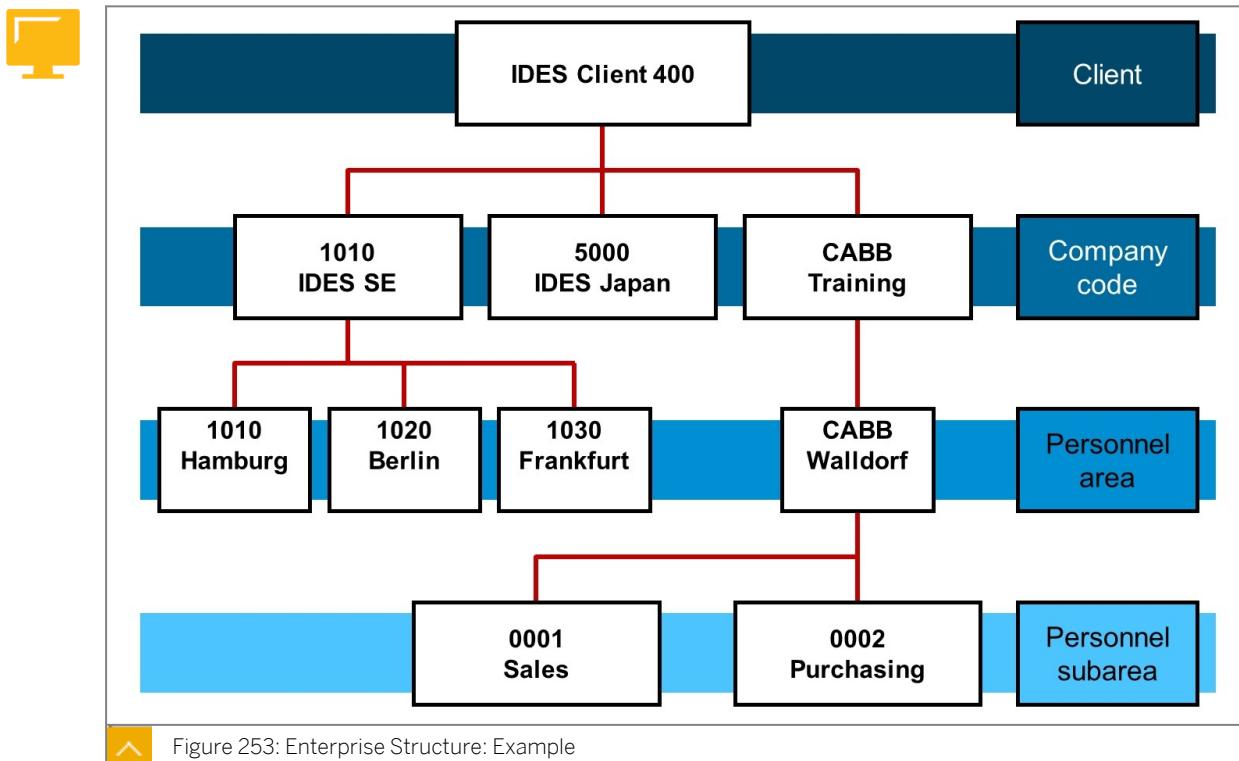
Positions represent the distribution of tasks among individual employees. Positions are occupied by persons. A position inherits the tasks and requirements of the job from which it was defined. A position can also be assigned additional tasks that have to be

carried out only by this one position. An example of a position based on the Manager job is Human Resources Manager.

## Persons

Persons occupy positions within the organizational structure and represent the employees in your organization. Employee data is maintained in Personnel Management. The assignment of employees to positions is usually part of the hiring or transfer process, which is handled in Personnel Administration.

## Enterprise Structure



### Animation: Enterprise Structure: Example

For more information on *Enterprise Structure: Example*, please view the animation in the lesson *Using SAP ERP HCM and SAP SuccessFactors* in your online course.

The enterprise structure for personnel administration is determined by the following elements:

### Client

A client can be valid for a company code at the smallest level, or for the entire corporate group.

### Company code

The company code is defined in accounting. The company code is a legal, independent accounting unit representing the central organizational element of finance. The company code represents the national tax law view of the company, the local currency, and tax reporting requirements.

## Personnel area

The personnel area is used exclusively in personnel administration and is unique within a client. Each personnel area must be assigned to a company code.

## Personnel subarea

Personnel subareas allow for the further grouping of employees. This is typically used in payroll and time management.

## E-Recruiting

E-Recruiting supports the entire recruitment cycle, including advertising, managing, and selecting applicants and applicant correspondence. When an applicant is hired, integration allows applicant data in the recruiting system to be transferred to Personnel Administration as employee data.

E-Recruiting includes the following:

- Requisition management
- Management of job postings
- Entry of applications
- Online services for internal and external candidates
- Talent Relationship Management

E-Recruiting is an all-round recruiting solution. It is fully Internet-enabled.

The following processes are included in E-Recruiting:

### Requisition management

Requisitions are an agreement between managers and recruiters regarding how vacant positions should be handled during the recruitment process. This document specifies how the selection process will be handled.

### Management of job postings

Job postings indicate the qualifications required of candidates. Management of this process includes defining how qualified candidates will be attracted to apply at the company.

### Entry of applications

This process determines how incoming applications will be handled (for example, through channels such as e-mail, intranet, Internet, job fairs, and so on).

### Online services

Candidates have the ability to register and log on using their own personal start pages. Candidates may search for vacancies, complete an online application, and check on the status of their application.

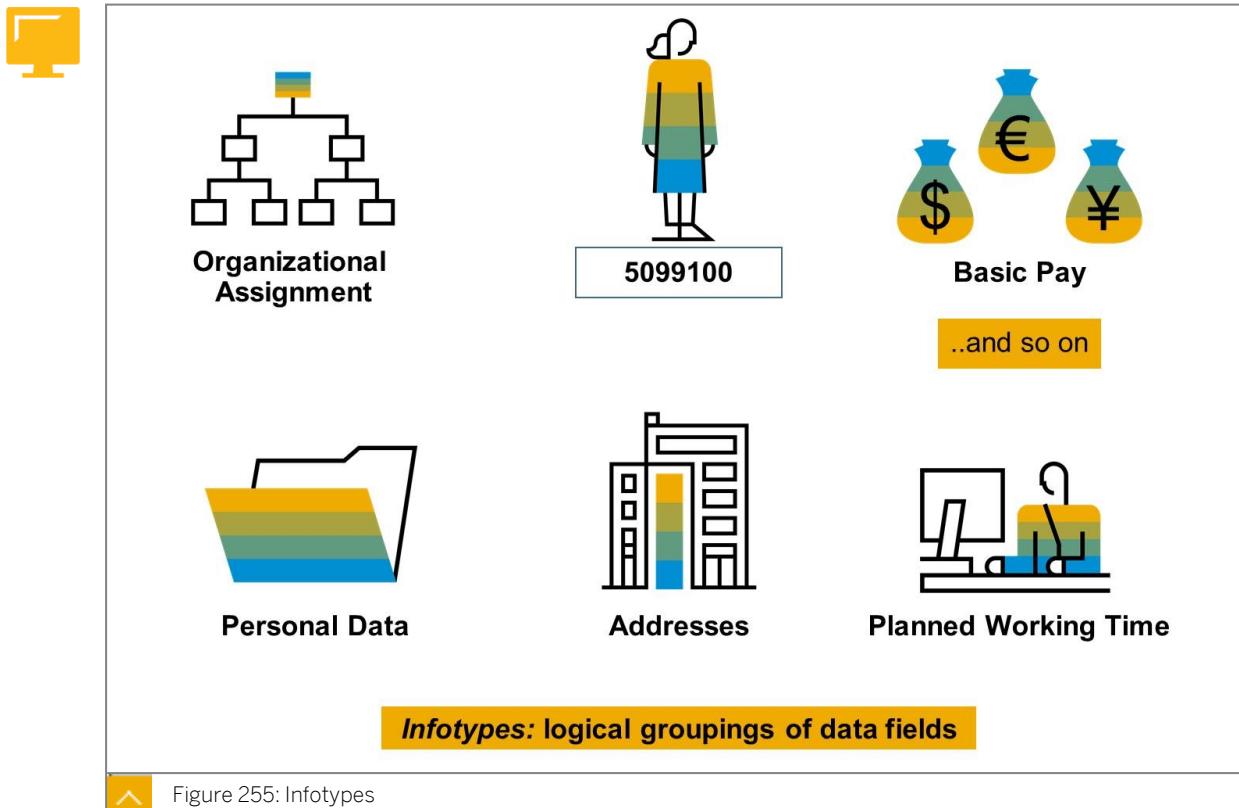
### Talent Relationship Management

This concept facilitates the integration of internal and external candidates in one talent pool. Search and match functionalities, along with classification of candidates, facilitates the search for the ideal candidate.

The hiring action executed for the successful candidate can initiate the transfer of information maintained on E-Recruiting infotypes to personnel administration infotypes.

## Employee Master Data

Employee data is stored in SAP ERP HCM as infotype records. Infotypes have a text description and a four-digit unique identifier (for example, the Organizational Assignment infotype has number 0001). Employee data can be displayed, copied, corrected, and deleted.



You can maintain infotypes in various ways, including:

- Single-screen maintenance (one infotype for one person at a time) (transaction PA30)
- Personnel actions (a sequence of infotypes for one person) (transaction PA40)
- Fast entry (one infotype for multiple persons) (transaction PA70)

### Personnel Actions

Personnel actions facilitate the maintenance of several infotypes for an employee in a specific order. For example, when you hire an employee, you have to enter information such as, master data (name, address, benefits, and so on), data that is relevant for time management (working hours, whether or not the employee must clock in and out, shifts, and so on) and payroll. When a hiring action is executed, the required infotypes are presented to the user one after the other in a specific sequence.

The following is a list of some of the infotypes created when you hire an employee:

- Organizational Assignment Infotype 0001
- Personal Data Infotype 0002
- Address Infotype 0006
- Planned Working Time Infotype 0007

- Basic Pay Infotype 0008
- Bank Details Infotype 0009

In addition to the information contained in these infotypes, country-specific infotypes are also included in a typical hiring action. Examples of these infotypes are taxes and benefits.

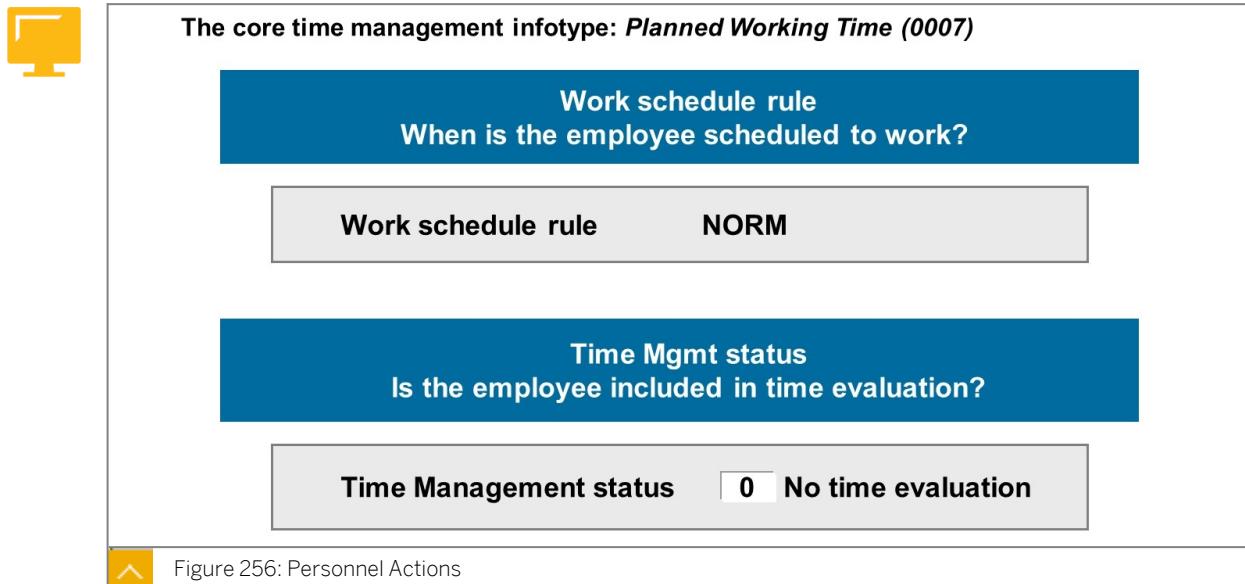
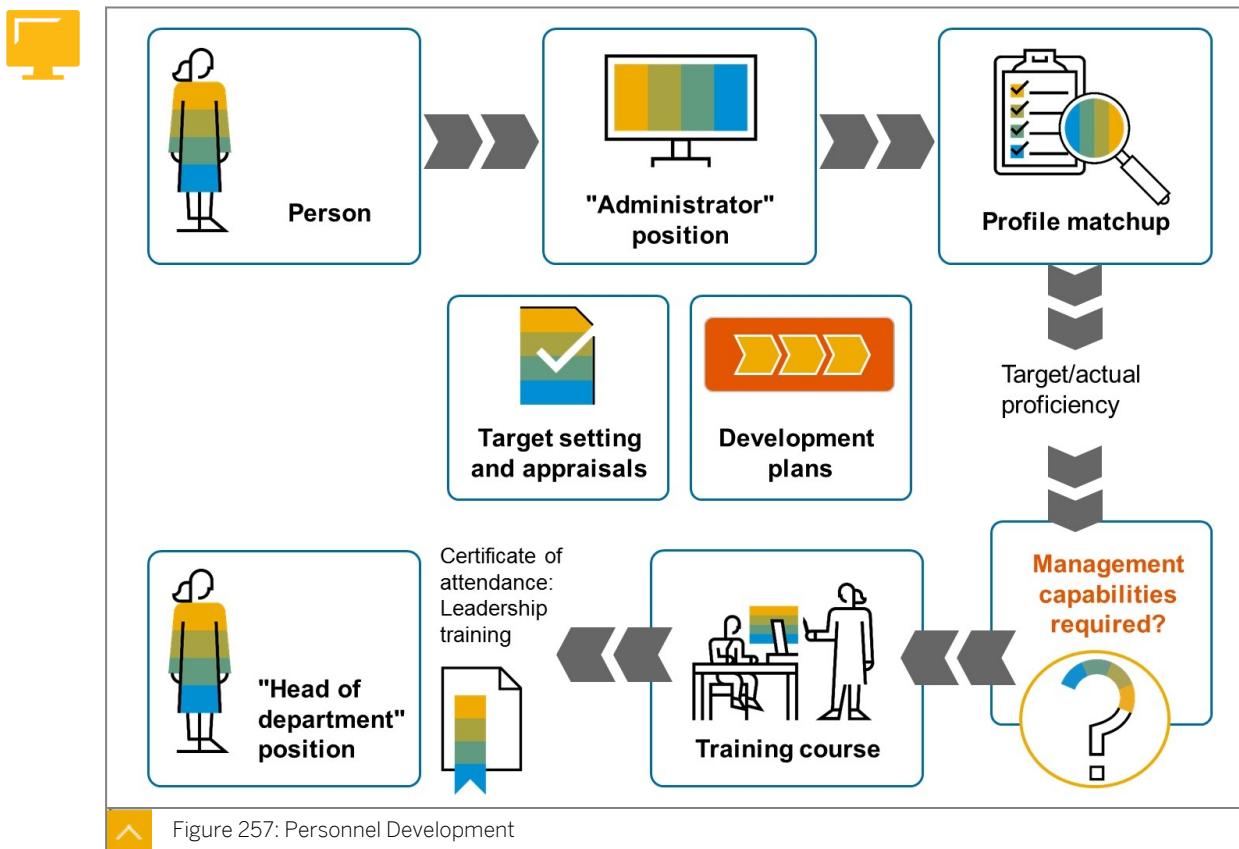


Figure 256: Personnel Actions

The completion of the hiring action results in the creation of a personnel file, which consists of the various infotype records. Actions simplify data entry because you do not have to access each infotype individually. If you do not have all of the employee's required information when carrying out an action, you can skip the infotype and add the missing information later.

### Personnel Development

In the Personnel Development component, you can plan development and further education and training for your employees by integrating with Training and Event Management.



The comparison of the position requirements profile (the skills required to perform the tasks of the position) and an employee qualification profile (the skills the employee holding the position possesses) results in development requirements for that employee. Development plans may be used to assign qualifying actions, such as, participation in a training program, to employees.

### Training and Event Management

Training and Event Management is a highly integrated component that supports you in the planning, execution, and management of training courses.

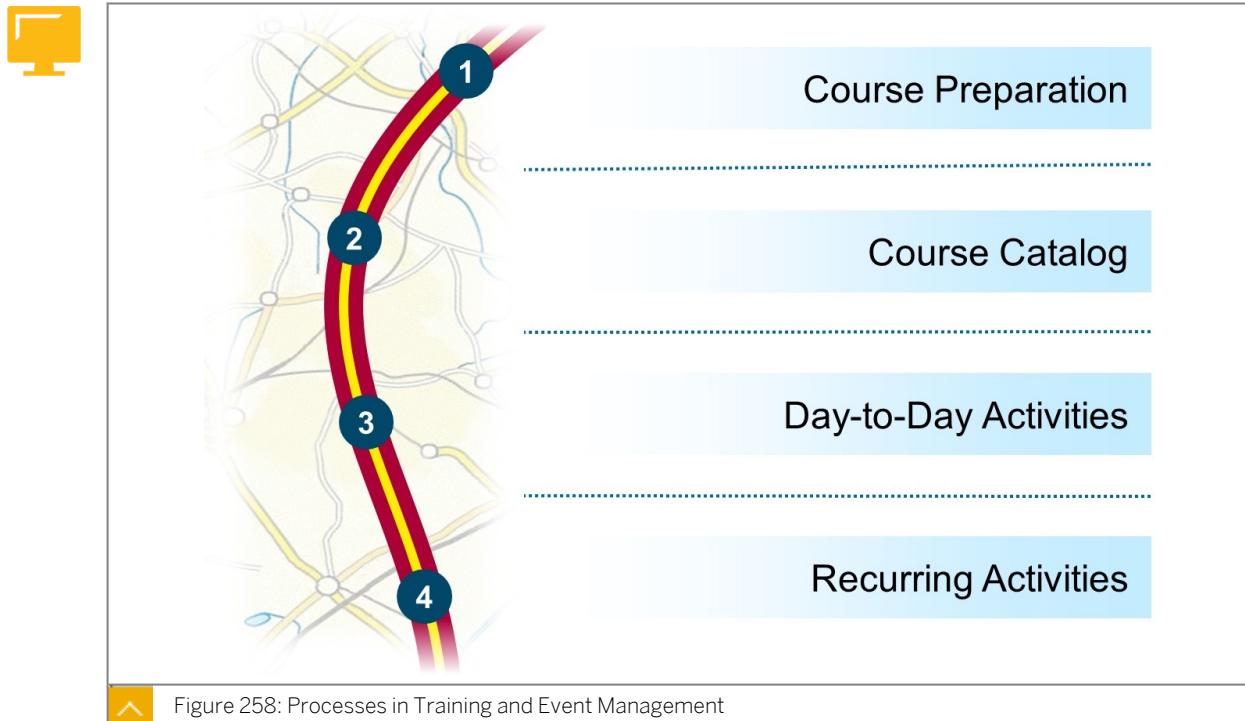


Figure 258: Processes in Training and Event Management

Training and Event Management includes the following main processes, each supplemented by reporting options:

1. Course preparation: Includes the creation and maintenance of the master data used to create the course catalog, including time schedules, event locations, resources, and so on.
2. Course catalog: Includes the creation of courses.
3. Day-to-day activities: Includes booking participants, prebooking attendance, replacing bookings, rebooking, canceling attendance, and preparing correspondence.
4. Recurring activities: Includes activities required periodically, such as firmly booking events (confirming that the event will run), locking and unlocking events (controlling enrollment), canceling, and follow-up activities (reporting, performing cost reallocations for internal attendees).



#### Animation: Processes in Training and Event Management

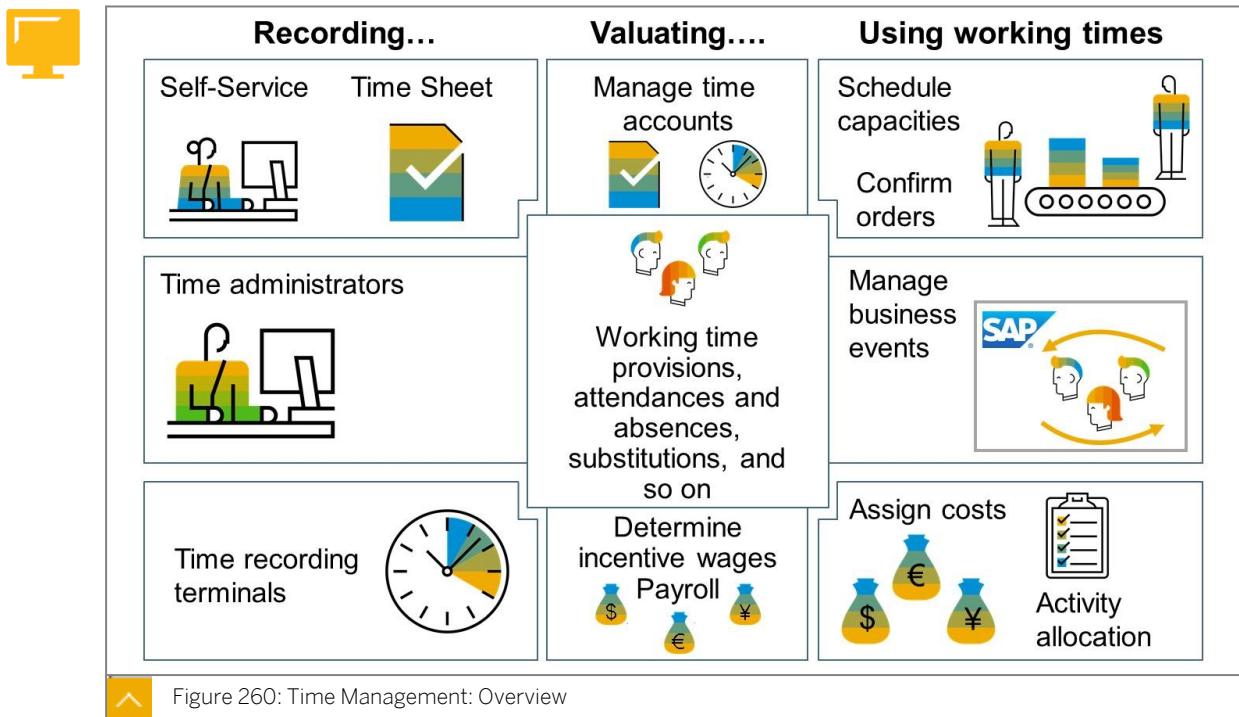
For more information on *Processes in Training and Event Management*, please view the animation in the lesson *Using SAP ERP HCM and SAP SuccessFactors* in your online course.

Due to a high level of integration with other SAP components, Training and Event Management, is an ideal tool for constantly extending and updating employee knowledge. For example, the link with Personnel Development enables you to identify qualification deficits and react with targeted training programs in Training and Event Management. The link to the Learning Solution enables you to combine traditional classroom training in Training and Event Management with Web-based learning methods.

### Time Management

The Time Management application supports you in all processes that concern planning, recording and valuating employee attendance and absence times. For example, if Training

and Event Management is integrated with Time Management, the booking of an employee into a course causes a time data record to be created as an attendance. If an employee who is being booked on a course is absent, due to vacation, for example, the system notifies the person attempting to register the employee that the employee is not available.



Evaluating work performed by employees and determining employee availability are essential elements for a human resources system. This information is also relevant for other areas, such as controlling (how the employee spent their time) and logistics (determines employee availability for planning activities) and is a factor that influences enterprise-wide decisions.

Time management allows you to flexibly display and record working times. Information on working times is used to calculate gross wages in payroll. There are various options available for recording time data, such as, hours worked, vacation, off-site work or substitutions.

Time recording options include the following:

- Online data entry by the time administrator (for example, using the Time Manager's Workplace).
- Using front-end time recording systems.
- Using the Cross-Application Time Sheet (CATS).
- Using Employee Self-Service (ESS) applications.

### Payroll

SAP ERP HCM supports payroll functions and regulatory requirements.

In general terms, payroll is concerned with calculating each employee's remuneration for the work performed. It encompasses a multitude of processes, such as, the creation of payroll results and salary statements, bank transfers, and payment to employees.

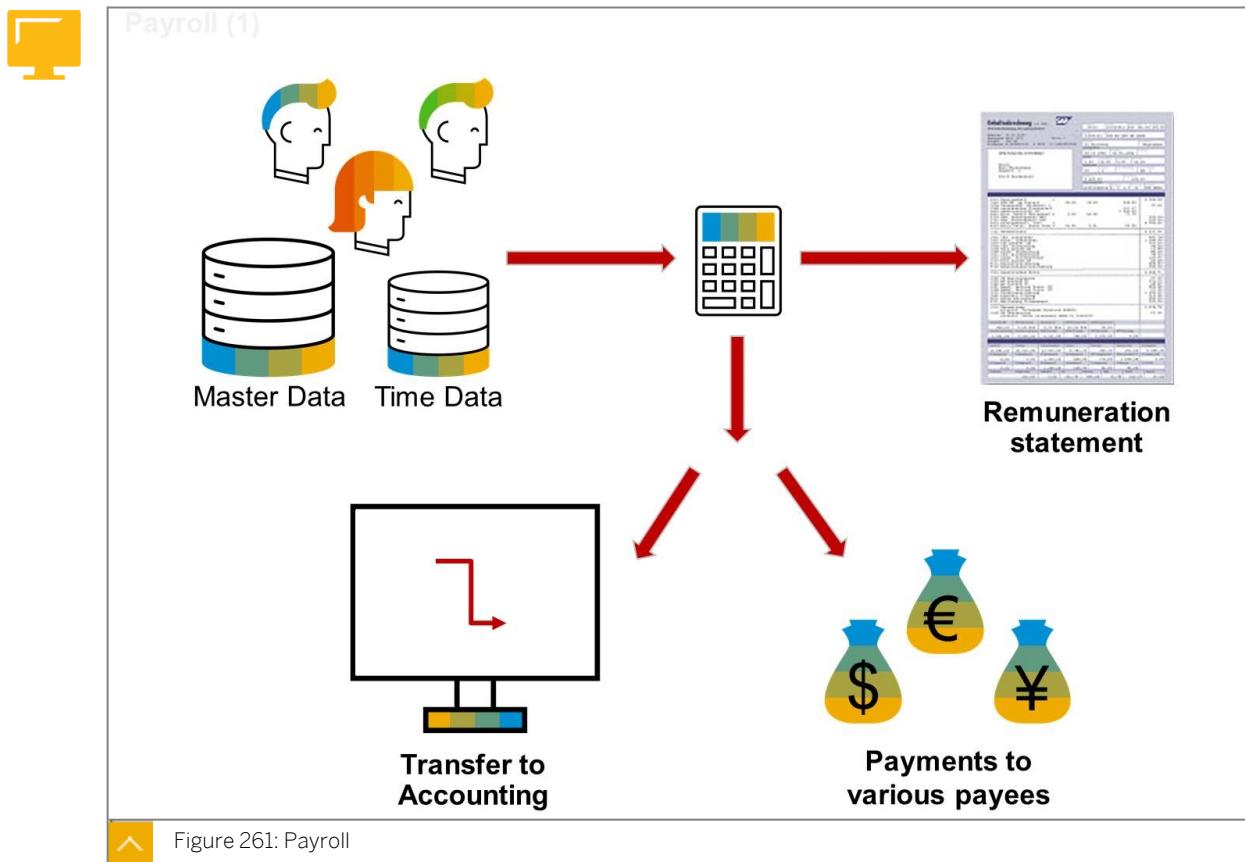


Figure 261: Payroll

Payroll includes a number of additional subsequent activities.

Examples of these activities include the following:

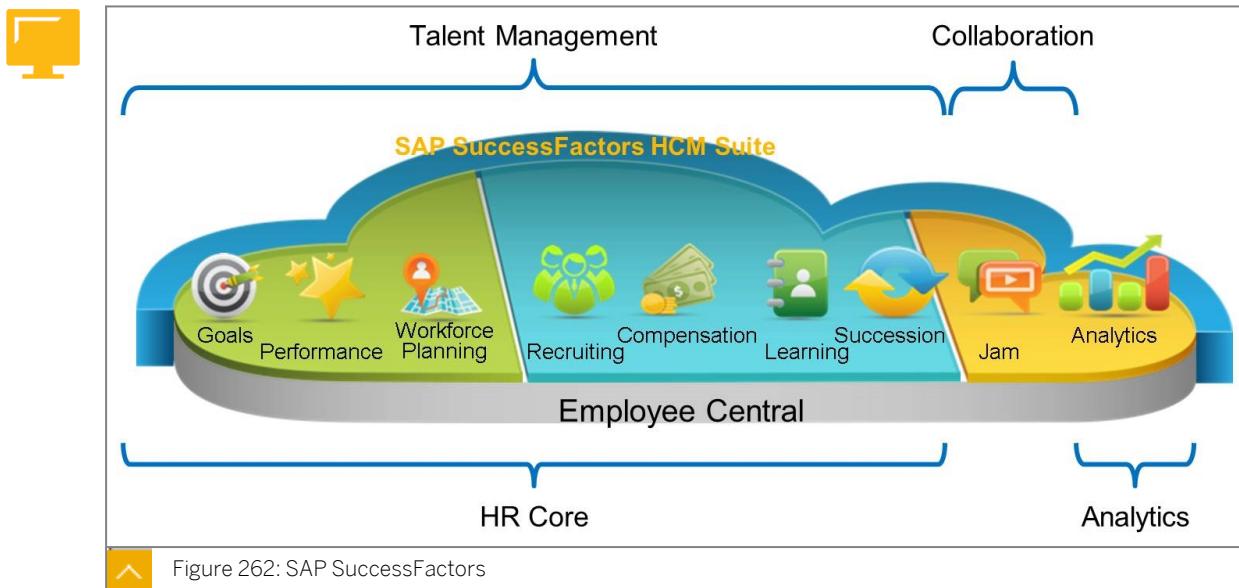
- Transfer of payroll results to accounting (for example, expenses and liabilities).
- Data medium exchange (transfer of net pay amounts to financial institutions).
- Other evaluations, such as the payroll account and payroll journal.
- The preparation of pay statements.

The calculation of payments to employees includes the following:

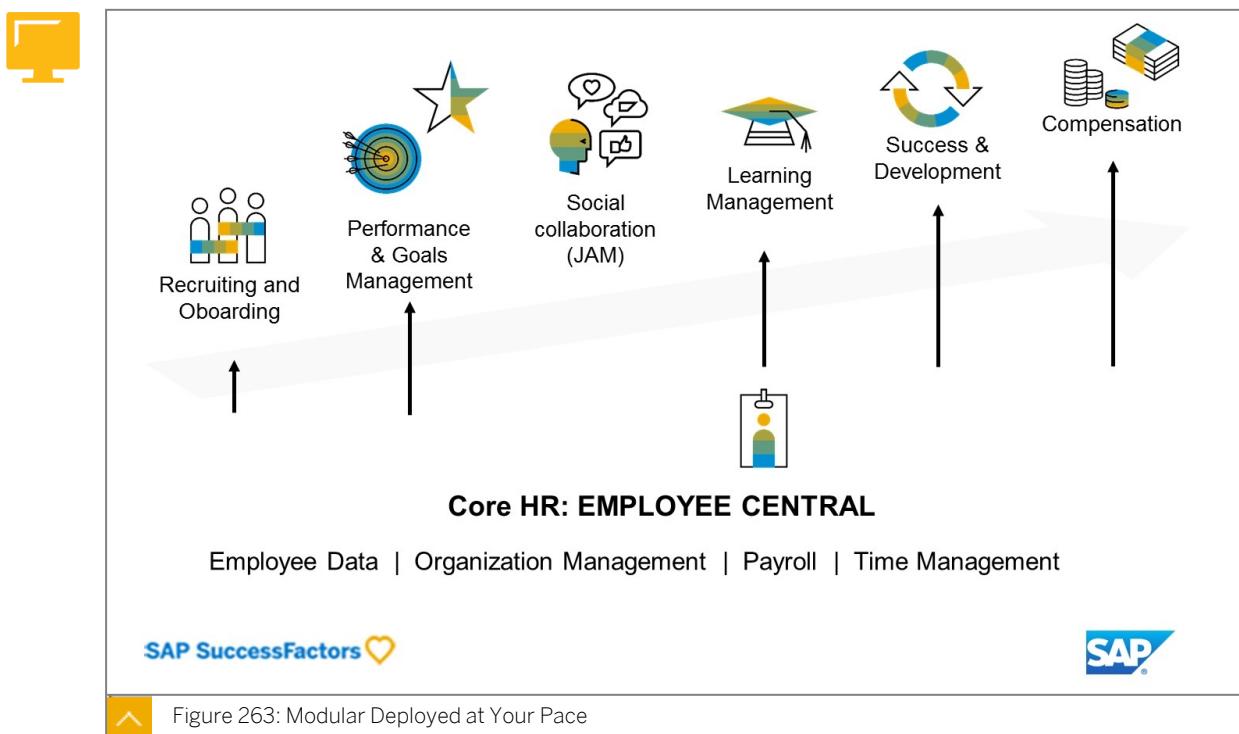
- Calculation of pay elements (gross amount).
- Statutory and voluntary deductions (country-specific, net amount).

These payments and deductions are included in the payment calculation, using different wage types. The employee is usually paid by bank transfer and the payment amount is printed on a form for the employee.

## SAP SuccessFactors Overview



Backed by SAP experience and global reach, SAP SuccessFactors solutions benefit from SAP years of experience in HR systems. SAP SuccessFactors solutions are modular and support you as you transition to the cloud at your pace. SAP SuccessFactors offers a your cloud, your way adoption path. You can start anywhere: leverage your investments in on-premise solutions and easily deliver leading core HR, talent, and analytics solutions in the cloud, or move all your HR processes to the cloud immediately. Scenarios are supported with predelivered integrations developed and maintained by SAP to deliver the lowest total cost of ownership (TCO) possible. SAP SuccessFactors products are very cost effective and typically take two to six months to implement. Software is updated four times a year, which means that you benefit from new features four times a year.





### Animation: Modular Deployed at Your Pace

For more information on *Modular Deployed at Your Pace*, please view the animation in the lesson *Using SAP ERP HCM and SAP SuccessFactors* in your online course.

## SAP SuccessFactors Solutions

You need a suite that covers all your HCM needs, including next generation core HR, comprehensive talent, and actionable workforce analytics. SAP SuccessFactors covers the entire employee lifecycle from recruitment to retirement, and offers critical compliance and strategic metrics. With one set of organizational data and one employee master, you can look at your workforce from all angles: past, present, and future.

### Employee Central

SAP SuccessFactors Employee Central delivers a suite of applications for your most demanding business priorities. The next-generation core HR system (HRIS) is designed for the global enterprise workforce and delivered securely using the SAP SuccessFactors cloud. Employee Central is the central repository for all of your employee data and it is the foundation for all of the SAP SuccessFactors solutions. Employee Central is built using modern technology, so it is much more flexible and much easier to use than traditional applications. Features of Employee Central include the following:

- One global system of record: The SAP SuccessFactors platform is effective-dated across geographies, cost centers, legal entities, and employee types.
- Complete workforce data: Combined HR and talent data delivers a comprehensive employee profile.
- Social collaboration: Optimize workforce productivity and accelerate innovation.
- Seamless integration: Connect with on-premise or cloud-based applications such as ERP, time and attendance, and benefits.
- Continuous innovation: Cloud-delivered enhancements are provided four times per year, with no additional cost or disruption.

### Recruiting

SAP SuccessFactors Recruiting is the only comprehensive recruiting solution that helps you attract and engage top talent, select and hire the best-fit candidates, and then measure the business results. Unlike other solutions, you can focus on more than just the selection phase of the process. SAP SuccessFactors Recruiting allows you to do the following:

- Target the talent you need: The patented methodology of SAP SuccessFactors ensures that your jobs get in front of the right candidate with the right message at the right time.
- Engage easily and effectively: Apply marketing best practices to cultivate strong candidates so you have a pipeline that will save recruiters time and get results.
- Improve selection: SAP SuccessFactors uses social, mobile, and competency-based approach to evaluating candidates speeds up the hiring process but keeps it fair.
- Onboard seamlessly: Accelerate new-hire engagement and impact with automated forms, and broaden your access to people and resources in the employee social network.

- Get results you can see: Improve return on your recruiting dollars, and demonstrate how your recruiting strategy is driving business results.

### Performance and Goals

SAP SuccessFactors Performance & Goals equips you with the in-depth employee performance information you need to retain, reward, and develop your best people. Its innovative capabilities and intuitive user experience ensure aligned, clear goals, and accurate objective talent assessments. SAP SuccessFactors Performance & Goals allows you to do the following:

- Align goals: Employees and managers can align individual goals with company business objectives.
- Deliver relevant formal reviews: Easy and engaging focal reviews. 360-degree assessments expand performance insight and improve employee engagement and retention.
- Calibrate performance: Intuitive, visual employee comparisons ensure objective and fact-based assessment decisions.
- Support managers: Writing Assistant and Coaching Advisor help managers provide more meaningful feedback and coaching.
- Identify top talent: Compare and rate employees across the same dimensions to identify high performers and potential future leaders.
- Communicate continuously: With SAP SuccessFactors Mobile, you can easily track issues and accelerate work on top-priority projects.

### SAP Jam

SAP Jam delivers social collaboration where you work, connecting customers, partners, and colleagues with information, applications, and processes to solve business-critical problems. It also facilitates driving results: all in your business applications, on your mobile device, or in SAP Jam. By adding collaboration to sales, HR, and other processes, you shorten sales cycles, increase customer and employee engagement, and reduce training costs. You avoid disconnected silos of collaboration; instead, there is a single, secure social foundation across your entire business. SAP Jam enables you to do the following:

- Connect: Improve communications and better connect employees across different geographies.
- Improve information sharing: Enable employees to find subject matter experts quickly and to share best practices.
- Drive decision making: Help teams tame project chaos, build consensus, and drive informed decisions.
- Collaborate externally: Strategize, communicate, and drive progress with customers, vendors, and partners.
- Social or blended learning: Reduce training costs with informal learning where experts can create content or video and can share expertise. Complement formal training with collaborative communities.
- Social onboarding: Improve time to contribution for new employees by connecting them with the people and content that they need to know.

- Collaborative performance and goal management: Create and share goals collectively for faster and better goal alignment and completion.
- Collaborative opportunity management: Bring all key participants together (sales, product management, service, partners, and others) in the opportunity process to reduce analysis and proposal development time. Keep key stakeholders updated in real time regarding opportunity progress.

### Learning

SAP SuccessFactors Learning combines formal, social, and extended learning with unmatched content management, reporting, analytics, and mobile abilities. The result is learning that transforms the business and provides verifiable return on investment (ROI). SAP SuccessFactors Learning enables you to do the following:

- Manage learning more efficiently: Store learning activities in a single location to reduce costs and create greater visibility.
- Improve compliance reporting: Use the Learning Management System (LMS) to track, train, and automate required certification assignments.
- Blend formal and social for greater ROI: Accelerate performance and increase learning retention by using SAP Jam as part of learning processes.
- Extend learning easily: Train your partners and customers with an Extended Enterprise solution that includes e-commerce functions.
- Make administration more powerful and intuitive: Wizard-based processes and assignment profiles provide unparalleled automation for your administrators.
- Improve content delivery: Reduce costs, increase efficiency, and assure that e-learning exceeds business results with a unique iContent service.

### Succession and Development

Successful business execution requires the right people in the right places for maximum impact throughout your organization. SAP SuccessFactors Succession & Development helps you identify, develop, and retain talent at every level of your company, keeping your workforce responsive and flexible. With a dynamic, comprehensive, and objective view of your workforce, you can recognize and bridge the talent gaps in your organization. SAP SuccessFactors Succession & Development enables you to do the following:

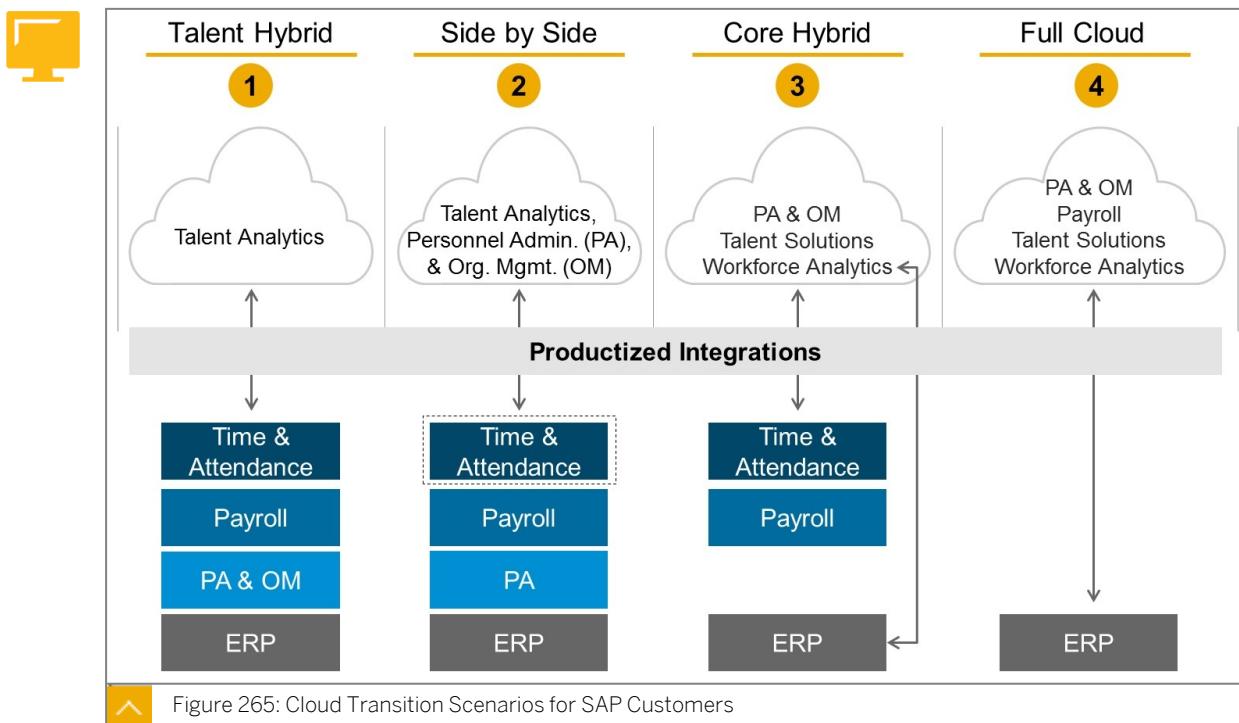
- Identify key positions: Succession management allows you to address current and potential talent gaps to reduce the risk of poor business execution.
- Provide talent continuity: Proactively identify your go-to employees and develop them for upcoming job transitions.
- Gain workforce insights: Gain visibility into employee experience, expertise, performance, and career aspirations.
- Understand employee histories: Map every staffing move across the company and see gained employee experience.
- Improve career planning: Address talent gaps, engage employees, and accelerate learning with targeted development plans.
- Calibrate ratings: Ensure objective, accurate ratings across groups and departments using competency-based criteria.

## Compensation

Employee compensation is a huge expense, often the largest expense for many companies. With SAP SuccessFactors Compensation, you can allocate compensation funds effectively to retain your top performers and avoid overpaying underachievers. Beyond rewarding great performance, you can also optimize budgets, improve compliance, and reduce manual errors, all leading to better business execution and results. SAP SuccessFactors Compensation allows you to do the following:

- Manage compensation easily: Intuitive, configurable processes for base and variable pay have simple, accurate, and streamlined workflows.
- Eliminate manager bias: Performance-based calibration across the company improves fairness and retention.
- Increase insight with metrics: Dashboards and reports can be combined with other business data for total employee compensation analysis.
- Improve budget and regulatory compliance: Automated monitoring and built-in reports keep payouts in line with budgets and regulations.
- Assure data integrity: Automatically stored data saves time, reduces risk, and improves audit compliance.

## Cloud Transition



Cloud transition scenarios for SAP customers enable you to leverage existing investments and connect with delivered integrations. The SuccessFactors and SAP integration strategy is built on the following strategic pillars:

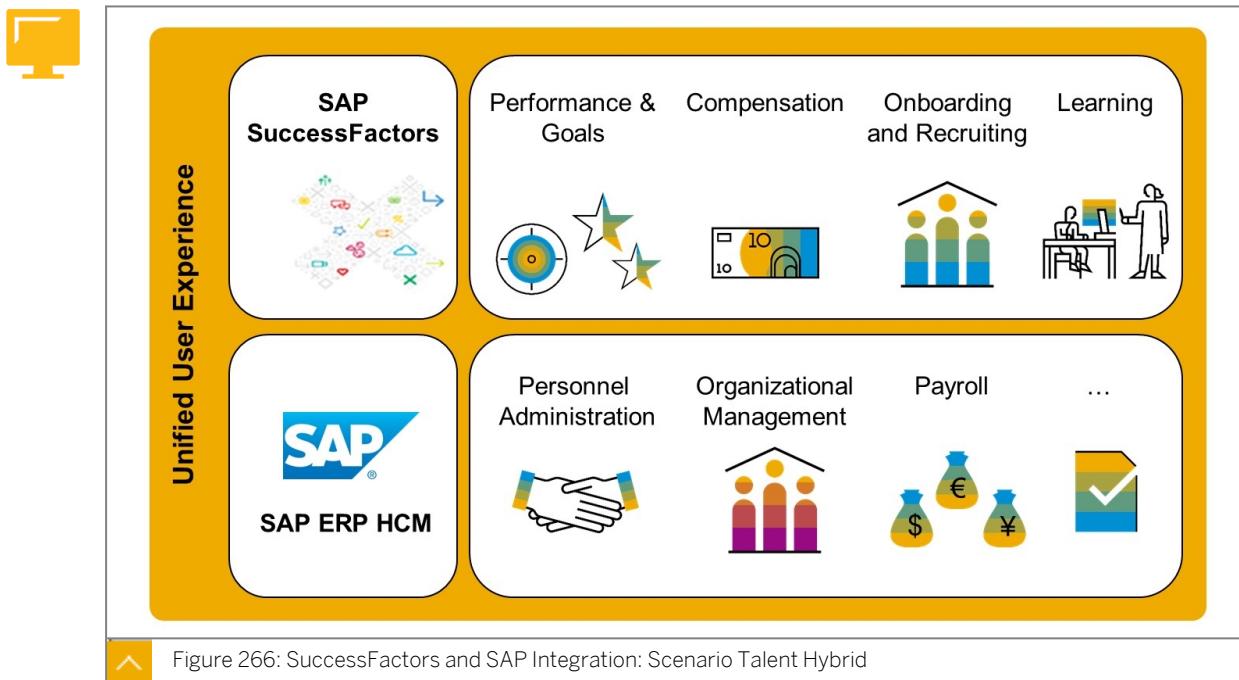
- Data foundation: Builds the foundation for integrated data between SAP and SuccessFactors:

- Include employee and organizational data (such as reporting relationships).
- Eliminate double data entry and maintenance.
- Integrate two systems of records.
- Process integration: End-to-end process integration across a loosely coupled suite:
  - Driven by processes (for example, pay-for-performance, attract-to-hire).
  - Support end-to-end HR processes by bidirectional integration.
  - Increase integration quality (for example, event-based and periodical).
- Seamless user experience: Unified access for end users to all HCM processes, regardless of back-end system:
  - Provide a single point of access across systems.
  - Unified menus and navigation.

Customers benefit by additional choice of solutions based on their business needs. We offer a comprehensive portfolio of solutions to run your HCM processes fully in the cloud, on-premise, or in a hybrid deployment combining both. The following are some of the solutions we offer:

- Cloud-based technology
- Real-time, bidirectional process integration
- Data integration
- Graphical flows and mappings
- Centralized monitoring and administration
- Prebuilt adapters
- Community marketplace (future)
- Compatible with content (mappings, for example) of SAP Process Integration and SAP Data Services (planned)
- Lower cost of change over time

## Integration Options



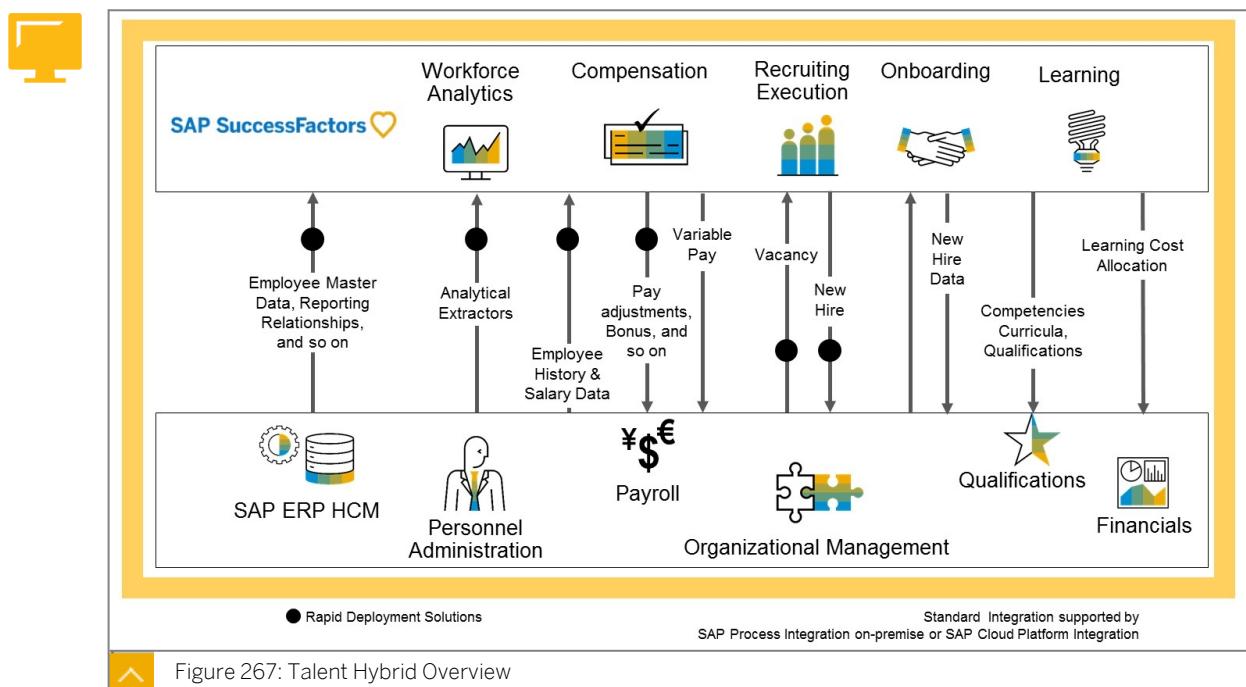
We have the capability to offer integration out of the box more cost-effectively than any other combination of SAP and non-SAP. The overall Cloud strategy is best described as a loosely coupled suite. For example, you receive the benefits of Cloud-based solutions on top of your on-premise solutions and allow for seamless integration. The SAP SuccessFactors solutions for talent management and ERP HCM are separate and focuses on the orchestration of the two. With our existing integration packages we ensure that all employee master data is available for all of the SAP SuccessFactors talent modules. That includes core talent management as well as learning and recruiting and analytics. Deeper integration for areas such as compensation management and recruiting are supported with various interfaces.

You can choose solutions based on your business needs. A comprehensive portfolio of solutions is available to run your HCM processes fully in the cloud, on premise, or in a hybrid deployment combining both. These solutions allow you to do the following:

- Make the most of your investment:
  - Complement and extend your on-premise core HR applications.
  - Use a phased approach to transform your organization.
  - Deploy an integrated suite of talent management applications at your pace.
- Take advantage of easy implementation:
  - Replace applications as needed; no need to switch everything overnight.
  - Hundreds of customers already run SAP SuccessFactors and SAP Business Suite.
- Create a roadmap that fits your future:
  - Strong roadmap of enhancements and new functionality with huge research and development investment ensure successful delivery.

- Benefit from increasing integration of SAP and SuccessFactors.
- Provide standard integration, delivered and maintained by SAP:
  - Programs, tools, and methodologies to help customers leverage a combination of SAP and SuccessFactors HR processes as seamlessly as possible and at the lowest possible TCO.
- Design as a loosely coupled suite:
  - A stable Core HR (on premise) while easily absorbing ongoing innovations in talent management via the cloud enabled to the clients.
  - No platform inter-dependencies.

### SAP SuccessFactors Functionality



With the talent hybrid model, you can run core HR processes (for example, personnel administration, organizational management, payroll) on-premise with SAP ERP HCM connected with talent solutions (performance management, learning, recruiting) and, optionally, workforce analytics, all in the cloud, with SAP SuccessFactors.



#### Animation: Talent Hybrid Overview

For more information on *Talent Hybrid Overview*, please view the animation in the lesson *Using SAP ERP HCM and SAP SuccessFactors* in your online course.

SAP SuccessFactors Human Experience Management Suite (HXM), read more: <https://www.sap.com/products/human-resources-hcm/hxm-suite.html>



## Unit 6 Exercise 23

# Work with Human Capital Management



### Simulation: Work with Human Capital Management

For more information on *Work with Human Capital Management*, please view the simulation in the lesson *Using SAP ERP HCM and SAP SuccessFactors* in your online course.

You are responsible for HCM (Human Capital Management) master data. For this reason, you need to check a specific data record for an employee.

You want to change the employee's organizational assignment and display her profile.



#### Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

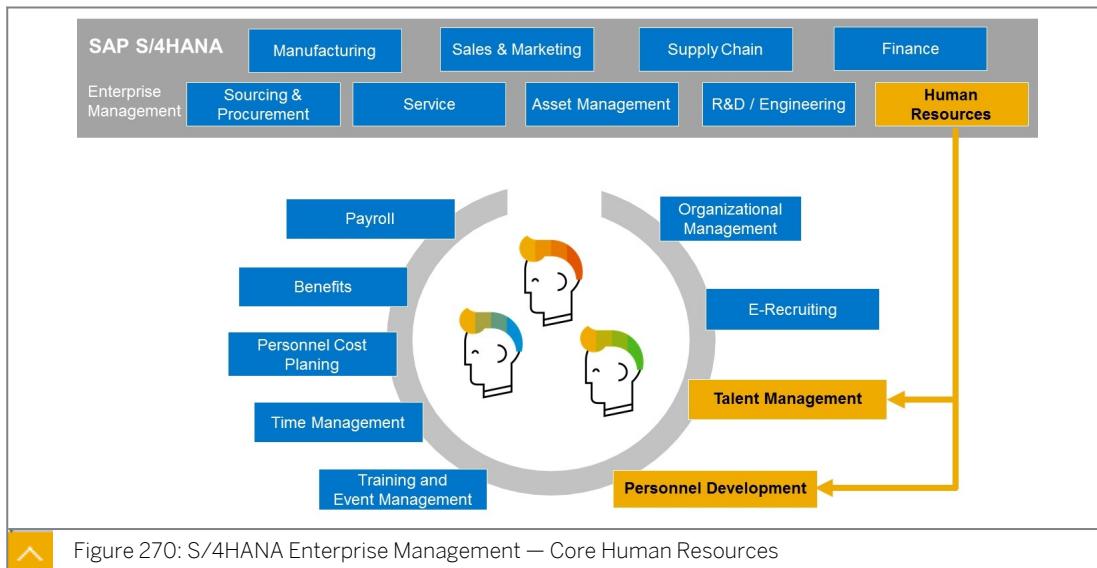


#### Note:

Use SAP Logon for this exercise:

Field	Value
System	T41
Client	400
User	S4H00-##
Password	Welcome1
Logon Language	EN

1. Display a specific data record for the employee and check to which organizational structure and personnel structure the employee is assigned.



Display the HCM master data for the Employee.

Use the F4 Value Help for the *Personal no.* field.

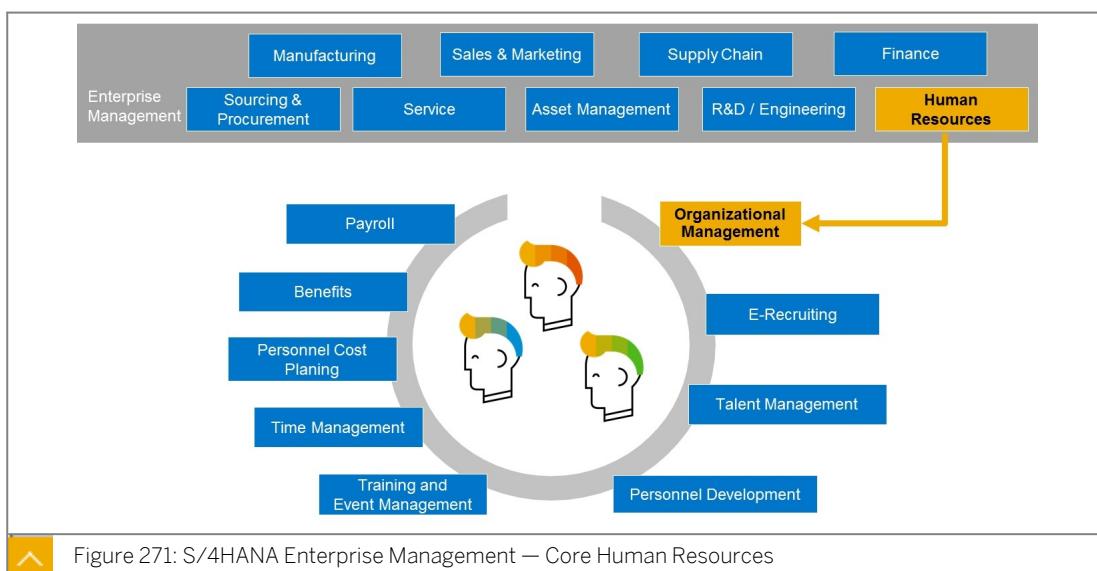
Search with the Last name **S4H00** and First name **Employee ##**.

On the *Basic Personal Data* tab page, look for the infotype that provides information about the organizational or personnel structure for this employee.

Make a note of the following information:

Field	Value
Pers.area	
EE group	
EE subgroup	
Payr.area	

## 2. What positions exist in the Organizational unit *Training S4H00*?



Use Organizational Management for this.

Positions:

---

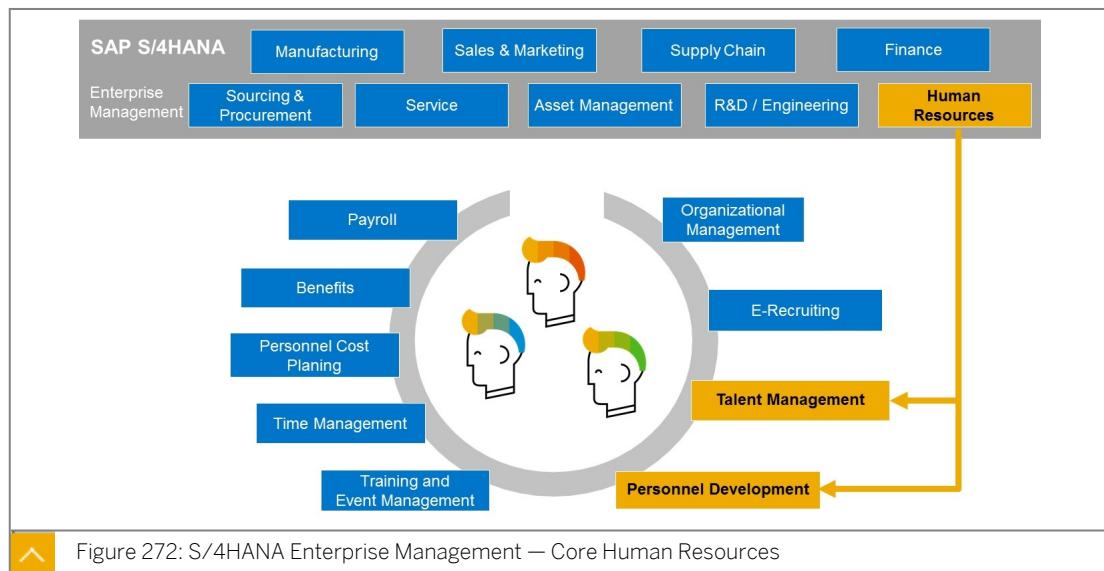


---

- Assign the Employee S4H00 Employee ## to the Position Specialist Purchase ## within Training S4H00.

Use Organizational Management for this.

- Use Personnel Development and display the Profile for Employee S4H00 Employee ##.



Make a note of the following information:

Qualification group	Name	Proficiency
.		
.		
.		
.		

# Work with Human Capital Management



Simulation: Work with Human Capital Management

For more information on *Work with Human Capital Management*, please view the simulation in the lesson *Using SAP ERP HCM and SAP SuccessFactors* in your online course.

You are responsible for HCM (Human Capital Management) master data. For this reason, you need to check a specific data record for an employee.

You want to change the employee's organizational assignment and display her profile.



Note:

In this exercise, when a value includes ##, replace the ## characters with the number that your instructor assigned you.

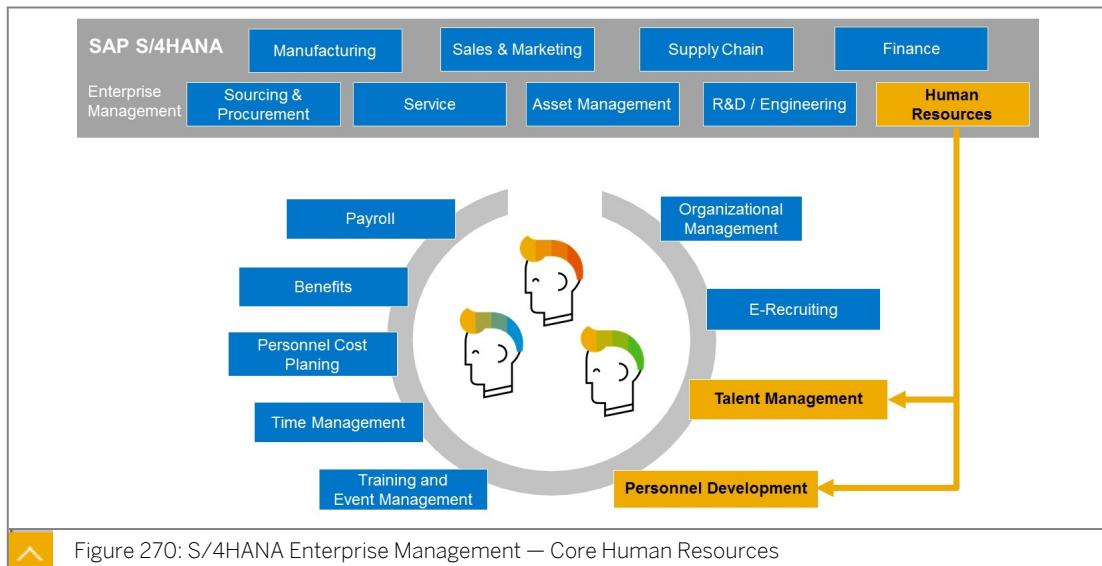


Note:

Use SAP Logon for this exercise:

Field	Value
System	T41
Client	400
User	S4H00-##
Password	Welcome1
Logon Language	EN

1. Display a specific data record for the employee and check to which organizational structure and personnel structure the employee is assigned.



Display the HCM master data for the Employee.

Use the F4 Value Help for the *Personal no.* field.

Search with the Last name **S4H00** and First name **Employee ##**.

On the *Basic Personal Data* tab page, look for the infotype that provides information about the organizational or personnel structure for this employee.

Make a note of the following information:

Field	Value
Pers.area	
EE group	
EE subgroup	
Payr.area	

- a) From the SAP Easy Access — User Menu for Employee ## S4H00 menu, choose *Human Resources* → *Personnel Management* → *Administration* → *HR Master Data*.
- b) Choose *Display*.
- c) Use F4 Value Help for *Personal no.*
- d) Choose the *Last name – First name* tab, and enter the Last name **S4H00** and the First name **Employee ##**.
- e) Choose *(Start Search)*.
- f) Choose *(Copy)*.
- g) Choose *Enter*.
- h) Select the *Organizational assignment* infotype.

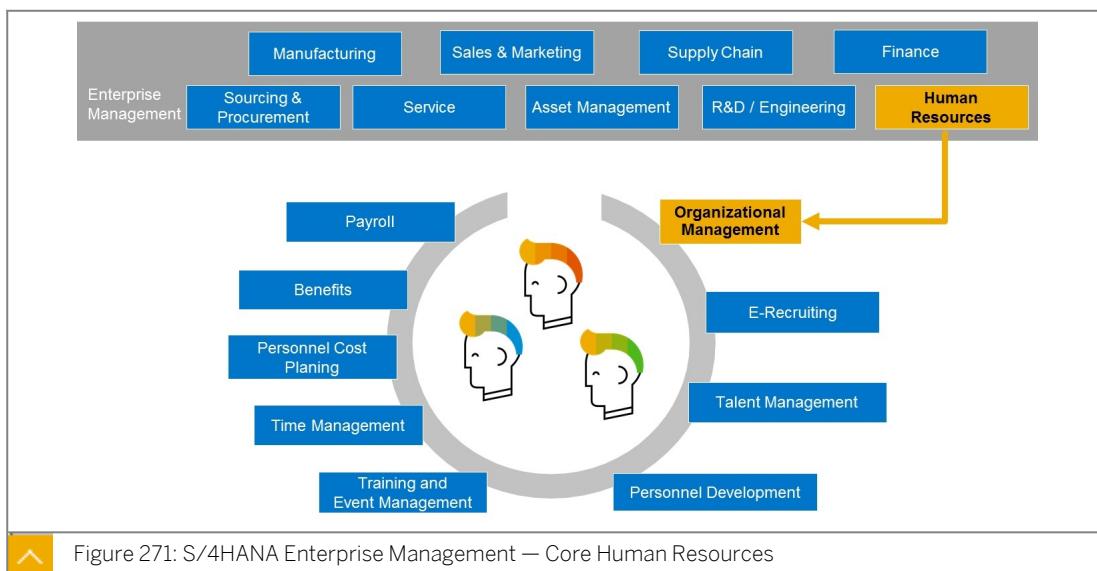
- i) Choose  (Display) in the application toolbar and find the requested values.

Make a note of the following information:

Field	Value
Pers.area	1010 Germany
EE group	1 Active
EE subgroup	Y1 Employees
Payr.area	X0 HR-X: Monthly

- j) Choose  (Exit) in the standard toolbar to exit the screen and return to the SAP Easy Access – User Menu for Employee ## S4H00 menu.

## 2. What positions exist in the Organizational unit *Training S4H00*?



Use Organizational Management for this.

Positions:

---



---

- From the SAP Easy Access – User Menu for Employee ## S4H00 menu, choose *Human Resources* → *Organizational Management* → *Organizational Plan* → *Organization and Staffing*.
- Choose  Change.
- Confirm any messages with *OK*.
- In the upper-left section of the screen, choose *Organizational unit* and choose .
- Choose  Search Term.

f) Under *With name*, enter **Training S4H00**.

g) Choose *Find*.

The search result is displayed in the lower-left screen area.

h) Double-click the *Training S4H00* entry.

The Organizational unit is shown in detail in the right screen area.

If you are unable to read the full description, expand the columns.

i) If necessary, choose  and open the *Training S4H00* folder to display the positions.

Make a note of the available position names.

The Position available is **Specialist Purchase ##**.

**3.** Assign the Employee *S4H00 Employee ##* to the Position **Specialist Purchase ##** within *Training S4H00*.

Use Organizational Management for this.

a) Choose **Specialist Purchase ##**.

b) Choose  *Assign*.

c) Choose *Person*.

d) Choose  (*Continue / Enter*).

e) Choose the *Last name – First name* tab, enter the Last name **s4h00** and the First name **Employee ##** and choose  (*Start Search*).

f) Select the entry.

g) Choose  (*Copy*).

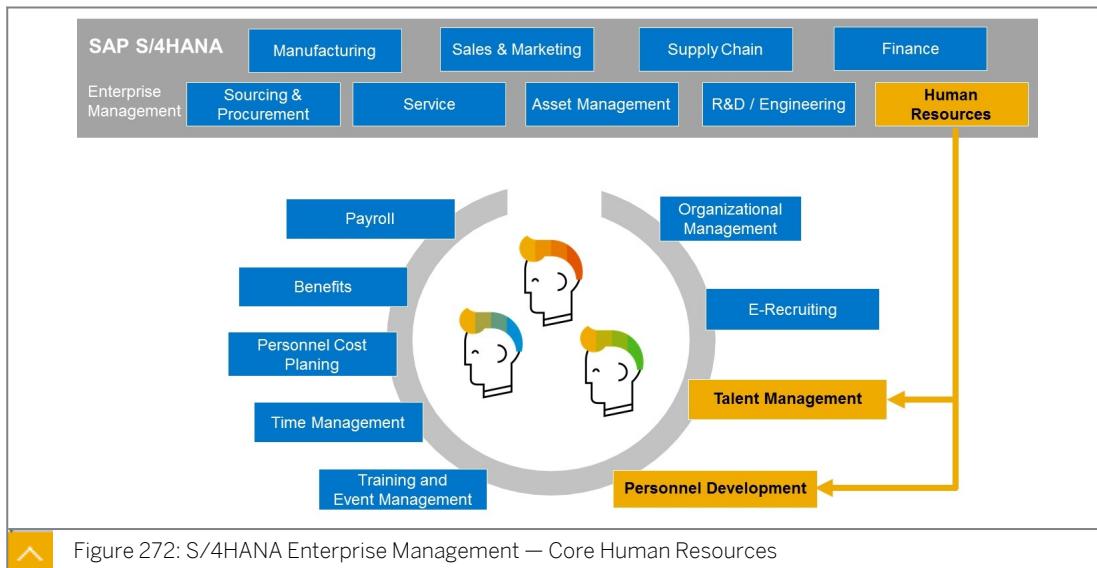
h) On the new window: *Person Assign*, choose  (*Continue / Enter*).

i) Choose  (*Save*) from the standard toolbar.

*S4H00 Employee ##* has now been assigned to the selected Position.

j) Choose  (*Exit*) in the standard toolbar to exit the screen and return to the SAP Easy Access – User Menu for Employee ## *S4H00* menu.

**4.** Use *Personnel Development* and display the Profile for Employee *S4H00 Employee ##*.



Make a note of the following information:

Qualification group	Name	Proficiency
.		
.		
.		
.		

- From the SAP Easy Access — User Menu for Employee ## S4H00 menu, choose *Human Resources* → *Personnel Management* → *Personnel Development* → *Profile*.
- Choose *Display*.
- In the upper-left section of the screen, choose *Person* and choose .
- Choose *Collective Search Help*.
- Choose the *Last name – First name* tab, enter the Last name **S4H00** and the First name **Employee ##**, and choose *(Continue (Enter))*.
- In the lower-left section of the screen, select *S4H00 Employee ##* and double-click the name.

Note:

You may need to scroll to the right to see the personnel number (ID).

The Profiles for S4H00 Employee ## are displayed on the right side of your screen. One of the Profile tabs includes *Qualifications*. Review the data and complete the table.

Qualification group	Name	Proficiency
Knowledge of business management	Purchase	Very Good
Languages	English	Fluent
Languages	German	Native speaker
Word processing	Word	Good

- g) Choose  (Exit) in the standard toolbar to exit the screen and return to the SAP Easy Access – User Menu for Employee ## S4H00 menu.



## LESSON SUMMARY

You should now be able to:

- Use SAP ERP HCM and SuccessFactors

## Learning Assessment

- Employees are assigned to the organizational, enterprise, and personal structures on infotype 0001, organizational assignment.

*Determine whether this statement is true or false.*

- True  
 False

- Due to a high level of integration with other SAP components, Training and Event Management is an ideal tool for constantly extending and updating employee knowledge.

*Determine whether this statement is true or false.*

- True  
 False



## Lesson 1

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## UNIT OBJECTIVES

- Use Embedded Analytics with SAP S/4HANA

# Unit 7

## Lesson 1

# Using Embedded Analytics

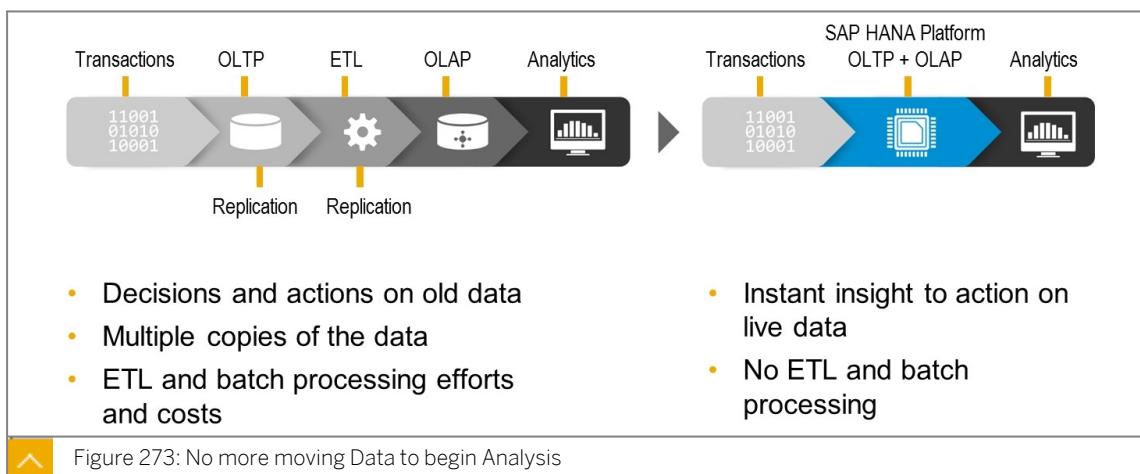


## LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Use Embedded Analytics with SAP S/4HANA

## Embedded Analytics with SAP S/4HANA



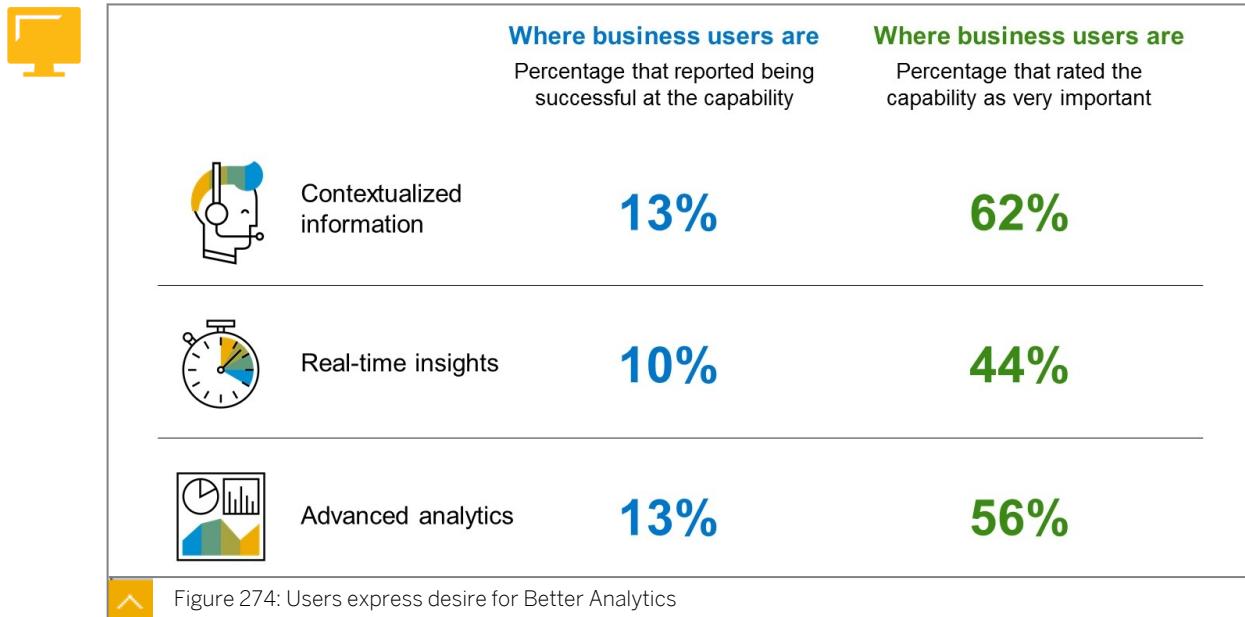
Traditional systems periodically move transaction data from the transactional systems (OLTP) to dedicated, analytical (OLAP) systems, through a series of steps known as ETL. This is done because transactional systems are not built for sophisticated analysis; their focus is on transaction processing. The data is physically moved to a system where the focus is on advanced analysis. The movement creates delays in making data available for analysis, and there are many points of failure along the journey, so it comes with risk.

Additionally, the landscape is complex and expensive, and special skills are needed to implement and run the various components in the ETL flow. One of the side effects of the ETL approach is that a huge amount of duplication is generated, due to the constant copying of data from one system to the next.

With SAP S/4HANA, OLTP and OLAP are combined on a single, in-memory platform. This means that there is no more moving data, generating multiple copies, and causing delays in the viewing of the business performance information. We also have a much simpler IT landscape with only the SAP HANA platform needed.

A key enabler of this simplicity is that the SAP S/4HANA data model is simple. We do not need to prepare and aggregate transactional data into separate analysis tables. All analysis is done directly on the core transactional tables. There is no more moving data, either from one system to another, or even within one system, from detailed table to summary table. There is no redundancy at all. Additionally, SAP S/4HANA includes built-in analysis tools that are user-friendly and promote self-service BI.

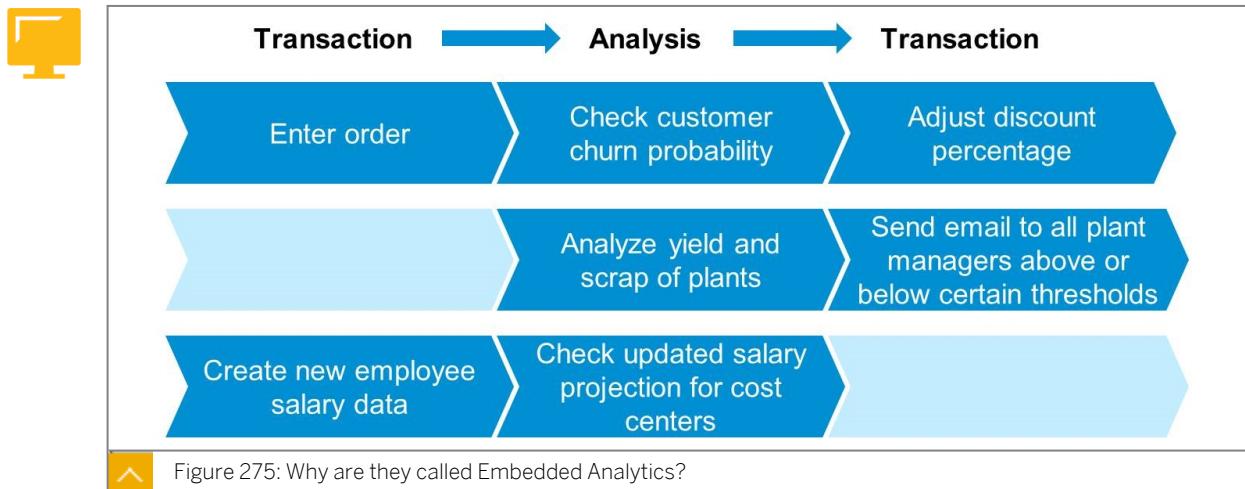
## Better Analytics



Removing the complexity and latency is not the only issue. We also need to improve the type of analytics available to users. The numbers speak for themselves.

On the whole, using traditional business systems, users have reported that they experienced a very low personal success rate in all areas of modern analytics. Yet, these same people know that these are important measures that could help them to be more successful in their roles.

## Embedded Analytics



In the past, analytics and transaction processing were considered separate tasks, usually with their own dedicated systems.

Imagine this scenario: A business user creates a sales order for a new customer. During the transaction, the business user needs to decide how much discount to offer the new customer, based on how likely the customer is to return. The business user saves the incomplete transaction. Later that day, an analysis is carried out and a report is produced to classify the customer's life-time value with a suggested range of discounts that could be offered. Then

next day, the sales order is reopened and the appropriate discount is applied. The business user calls the customer to confirm the order. The customer really likes the discount but it is too late. The customer has already placed the order with a supplier who reacted more quickly so the order is lost.

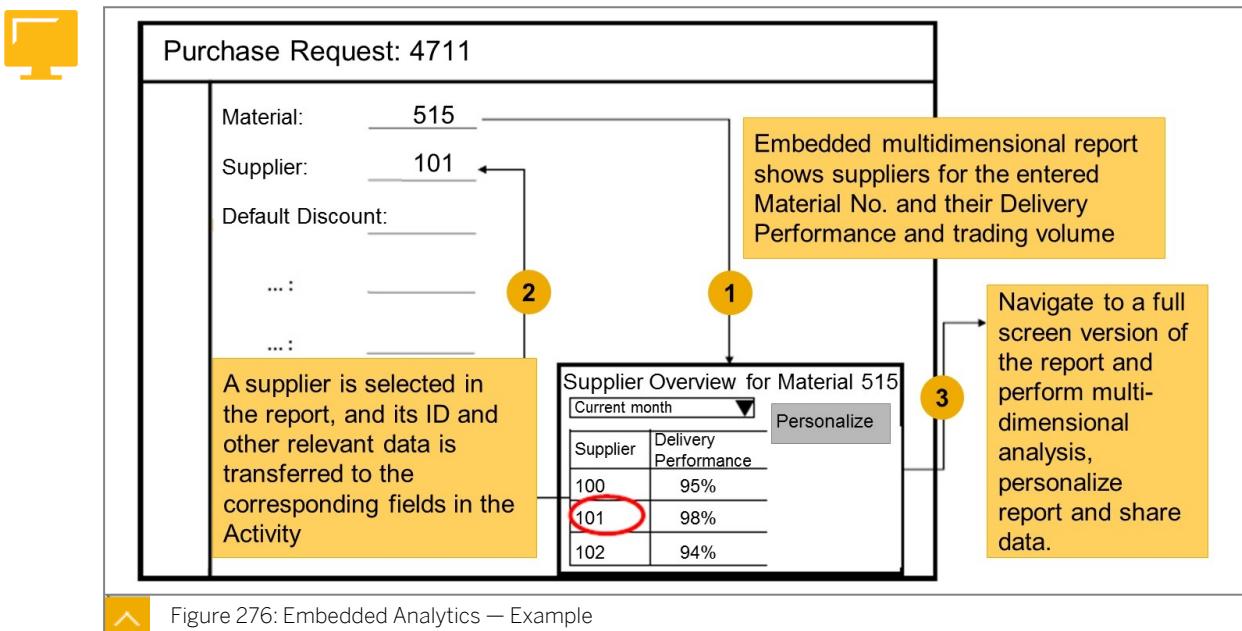
Within a transaction, a business user should be surrounded by contextual insight. This means key information should appear inside the transaction, where it is needed.

Often, it is not a transaction that triggers the need for analysis. Sometimes, a transaction is needed as the result of an analysis. For example, after an analysis of wastage during manufacturing, each plant manager who has exceeded the thresholds for waste generation needs to be contacted with the results of the impact they have on the business profit. Rather than the details being collected from the analysis, they are pasted into an Excel document, and the document is attached to individual e-mails to the plant managers. The communication should simply be sent at the moment of analysis, rather than as a separate task in a separate system. All relevant information should be automatically collected for the communication.

The key point is that analytics and transactions are no longer separate tasks in a modern business system, but are combined.

A central theme of SAP S/4HANA is embedded analytics, analytics at the point of opportunity or risk within a transaction. SAP S/4HANA works on real-time data, so all analytics are always up to date. With today's fast-moving data, internal and external, decision-making on out-of-date data, even when it is just a few minutes old, can be costly.

### Embedded Analytics — Example



The figure, Embedded Analytics — Example, provides an example of SAP S/4HANA embedded analytics in action.

As you can see, the user is creating a new purchase request and needs to assign a supplier. There are quite a few suppliers who can shop this product, so an embedded analysis right inside the application provides some key decision-making information to the user to help them make the decision without leaving the application.

The users choose the supplier with the best delivery performance.

## Advanced BI Tools

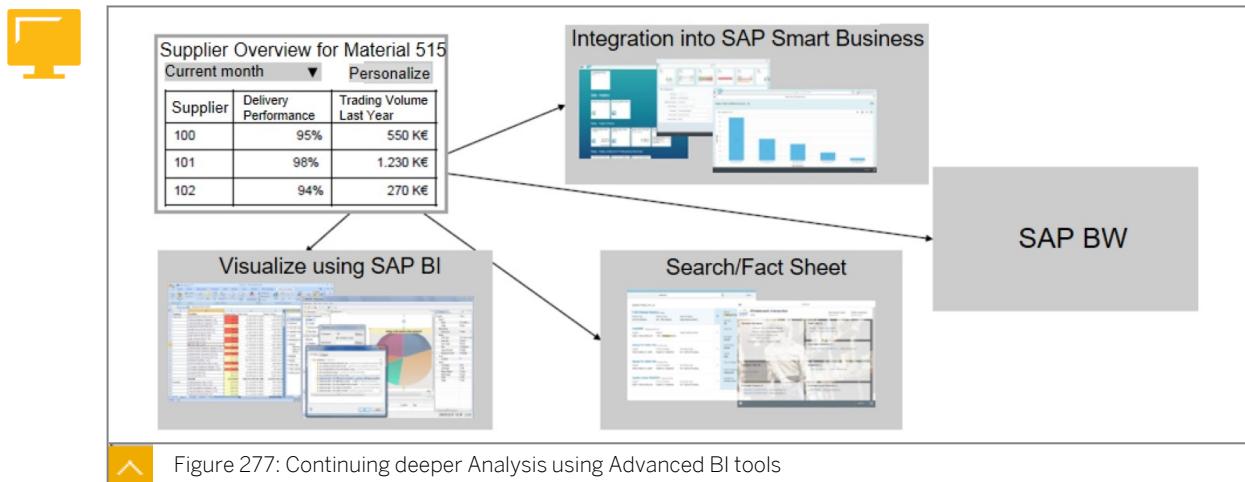


Figure 277: Continuing deeper Analysis using Advanced BI tools

Perhaps a user needs to find out why a supplier does not achieve 100% delivery performance, for example, because there has been a serious issue that might be repeated.

The user begins a drilldown to break down that 95% figure to look for a pattern. Perhaps the concern is far in the past and issues have now been fixed, or the whole of the last order was a disaster.

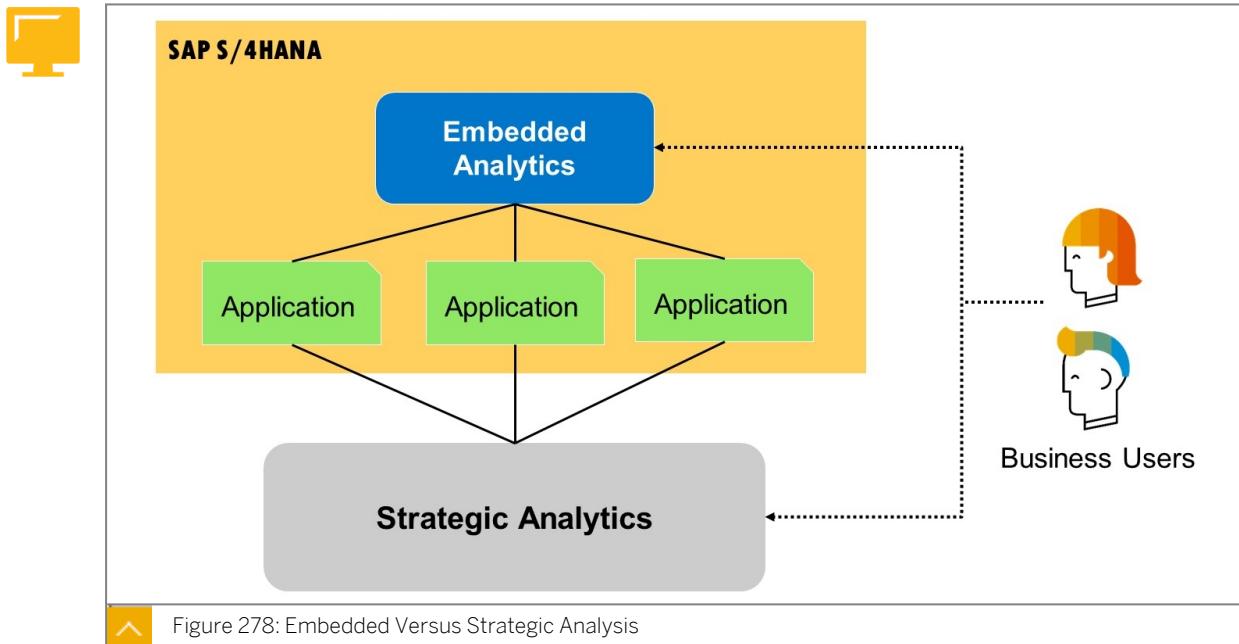
This seamless, extended exploration of data is possible because, with SAP S/4HANA, you can launch advanced BI tools while still in context.

You can explore all dimensions of the performance of a supplier and, if necessary, drill all the way down to individual historical transactions. You can also use tools to look for hidden patterns of behavior to identify warning signs. Additionally, you can compare the current supplier data with years of historical information on the supplier to identify trends. All of this analysis is always based on real-time data.

This is all possible with SAP S/4HANA Analytics, and we can address the low levels of satisfaction illustrated earlier.

However, as well as making analytics available inside the business processes, we provide more sophisticated tools that allow for advanced analysis.

## Embedded Versus Strategic Analysis



There are many analytic tools relevant to SAP S/4HANA. These tools are part of embedded analytics or strategic analytics, as follows:

- **Embedded analytics:**

A collection of tools that are included with core SAP S/4HANA. No additional license is required, and the focus is operational analytics.

- **Strategic analytics:**

A collection of tools that are not included with core SAP S/4HANA. Additional licenses are usually required, and the focus is on deeper, more advanced BI scenarios.



Animation: Embedded Versus Strategic Analysis

For more information on *Embedded Versus Strategic Analysis*, please view the animation in the lesson *Using Embedded Analytics* in your online course.

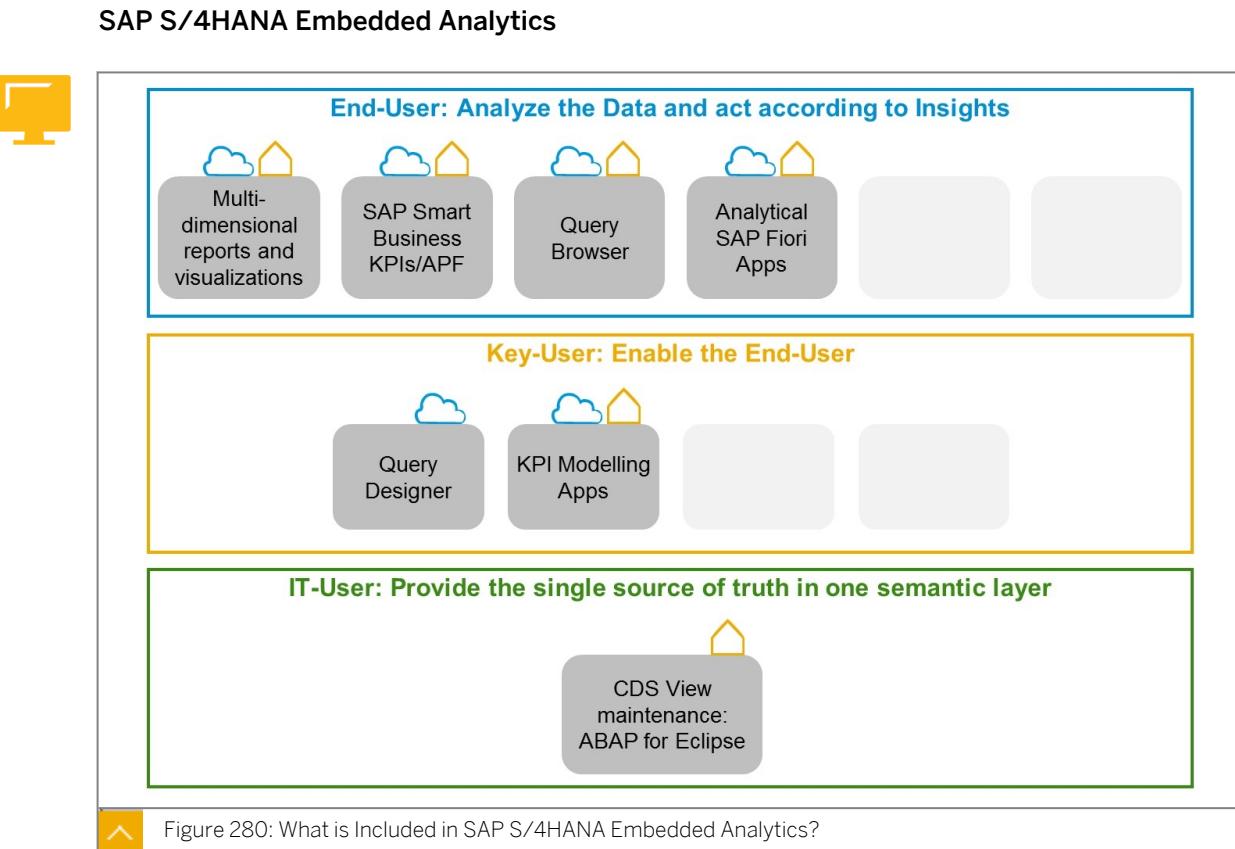


Figure 280: What is Included in SAP S/4HANA Embedded Analytics?

**SAP S/4HANA embedded analytics** are part of the core SAP S/4HANA license.

The tools can be broken down by the types of users at which they are aimed, as follows:

- End user
  - Multidimensional reporting: ABAP Web Dynpro-based standard delivered reports with flexible slice-and-dice navigation features presented through SAP Fiori.
  - SAP Smart Business cockpits: SAP Fiori-based cockpits built using the KPI modeling apps toolkit.
  - Query Browser: SAP Fiori portal presenting standard and custom-created analytic queries to allow flexible slice and dice; based on a Design Studio template.
  - Analytical Fiori apps: Any SAP Fiori application that presents concentrated analytics.
- Key user
  - Query Designer: Use to develop customer queries (for now only available for SAP S/4HANA Cloud).
  - KPI Modeling apps: Toolkit to build KPIs, associate them with drilldowns, and assign them to tiles.
- IT user
  - Core Data Services maintenance: CDS is the foundation for all analytics, provided by SAP and extendable by customers. IT users perform the maintenance.



Animation: What is Included in SAP S/4HANA Embedded Analytics?

For more information on *What is Included in SAP S/4HANA Embedded Analytics?*, please view the animation in the lesson *Using Embedded Analytics* in your online course.

## SAP S/4HANA Strategic Analytics

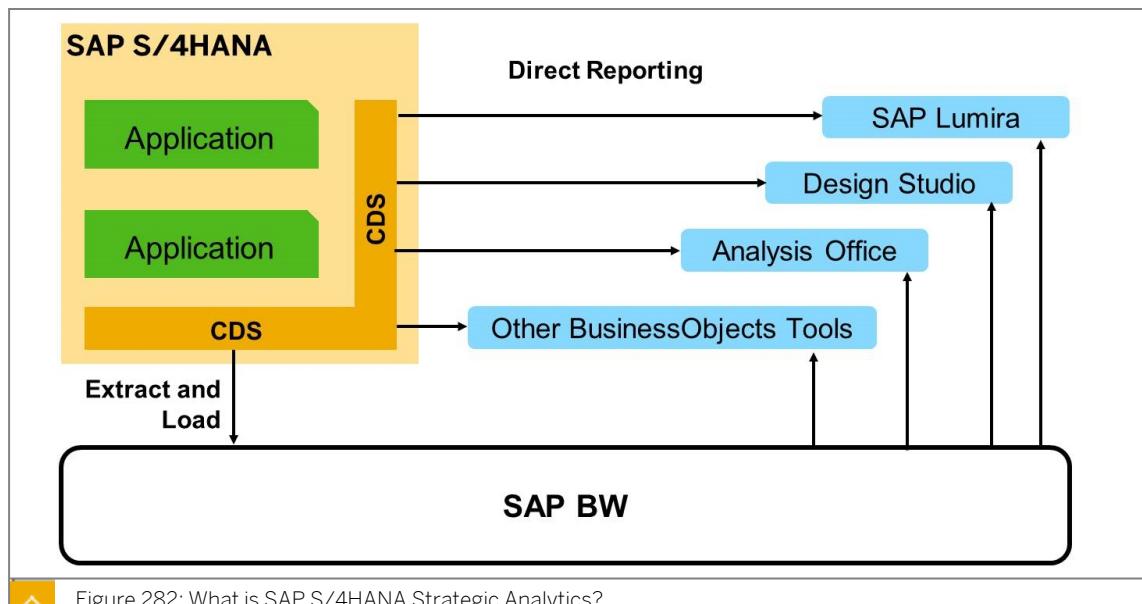


Figure 282: What is SAP S/4HANA Strategic Analytics?



Animation: What is SAP S/4HANA Strategic Analytics?

For more information on *What is SAP S/4HANA Strategic Analytics?*, please view the animation in the lesson *Using Embedded Analytics* in your online course.

**SAP S/4HANA strategic analytics** are not part of the core SAP S/4HANA license.

These tools leverage the same foundation used by embedded analytics, which are CDS views.

They are used by dedicated BI users, who need to go beyond the capabilities of embedded analytics.

Strategic analytics focus less on the operational analytics and more on a long-term, aggregated view of business performance.

Strategic analytics include the following areas:

- SAP BW:

Enterprise data warehouse used to consolidate multiple data sources, including SAP and non-SAP, with advanced data staging, and ETL flows with strong data flow management. Also capable of handling huge stores of data, with data lifecycle strategies.

- SAP Analysis for Microsoft Office:

Microsoft Excel-based advanced, multidimensional OLAP tool used for unrestricted, deep exploration of data.

- Other SAP BusinessObjects tools:

These tools include SAP Predictive Analytics, SAP BusinessObjects Web Intelligence, and SAP Crystal Reports.

- CDS views can be a data source to be consumed directly by the reporting tools. They can also be used as a data source (extractor) to load BW DataStore objects. These can then be the data source for all reporting tools shown in the figure.

- SAP Lumira:

SAP Lumira lets you gain insights from trusted enterprise data sources and personal data, and share these insights with other users through interactive visualizations, stories, and tailored analysis applications, on desktop browsers and mobile devices:

- SAP Lumira Discovery:

SAP Lumira Discovery is used by key business users who need flexibility to connect to data (usually multiple data sources), shape that data, and create ad-hoc stories with visualizations from all types of data, which others can leverage, build upon, and share.

- SAP Lumira Designer:

SAP Lumira Designer is the rich client for professional analysis application designers (typically working in IT departments) to create corporate analysis applications and reports.

- SAP Lumira Server:

SAP Lumira Server leverages the BI platform to enable secure access to Discovery stories and Designer applications in Business Departments and SAP Enterprise BI Landscapes, on desktop, browsers, and mobile devices.

- SAP BusinessObjects Mobile:

With SAP BusinessObjects Mobile, stay connected to your business data anytime and anywhere, as you can now view SAP Lumira documents on your iPad. Access the data that you want to see by using filters and input controls at the page level and within visualizations too.

## Tools for End Users

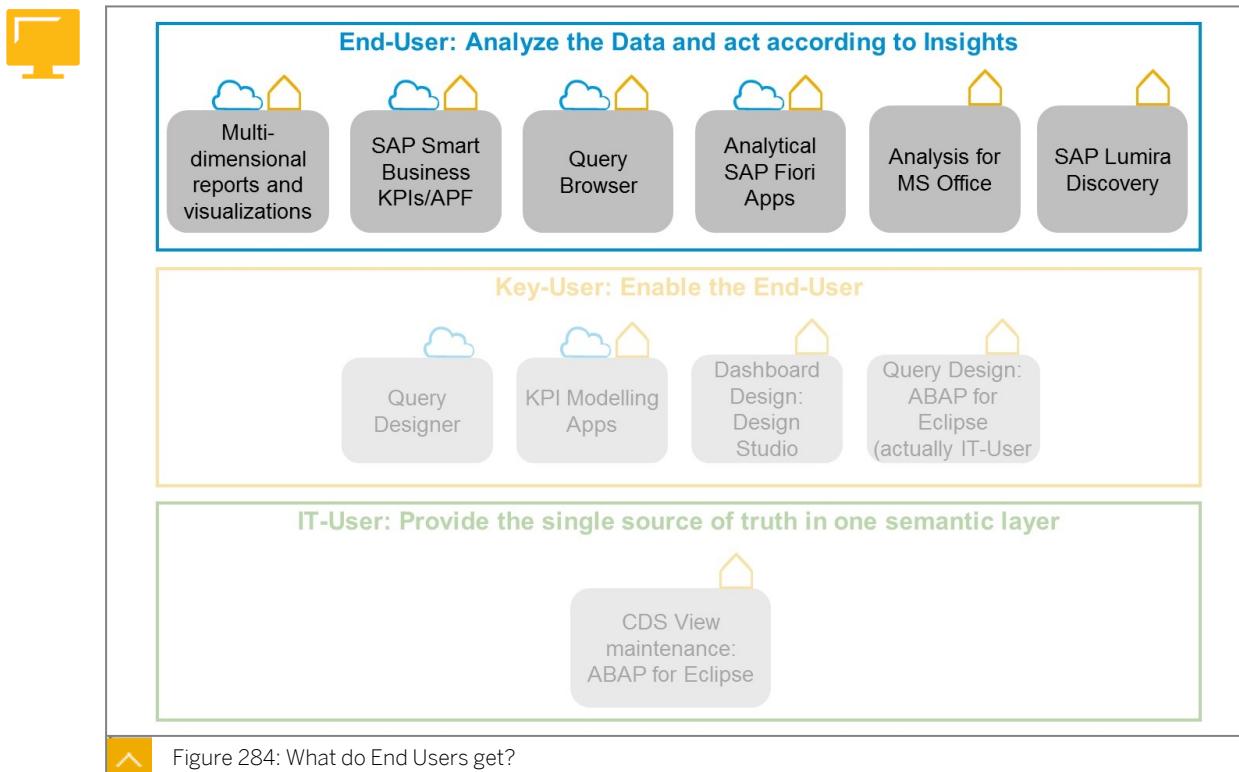
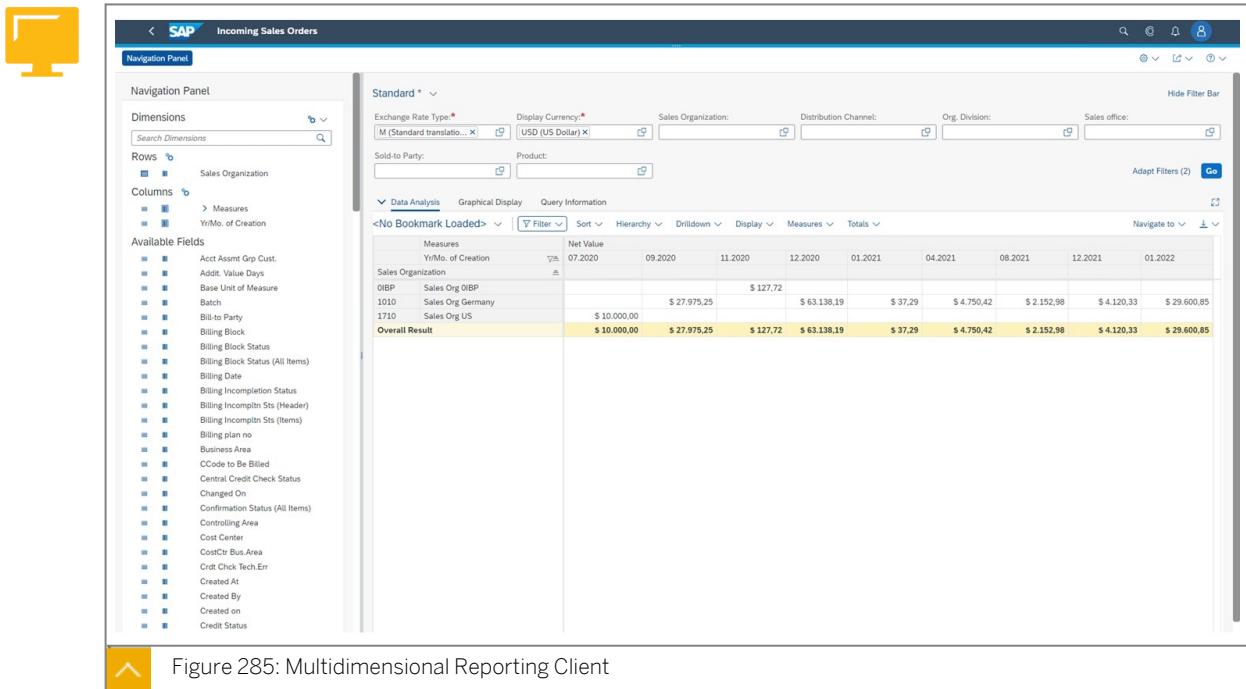


Figure 284: What do End Users get?

An end user is someone who is at the consumption end of SAP S/4HANA embedded analytics, rather than working in the development area. End users are typically business users who are IT literate and comfortable with reporting tools.

This figure, What Do End Users Get?, shows the tools that are part of embedded analytics and strategic analytics.

## Multidimensional Reporting Client (MDRC)



The screenshot shows the SAP MDRC interface for an 'Incoming Sales Orders' report. On the left is a 'Navigation Panel' with sections for Dimensions, Rows, Columns, and Available Fields. The Available Fields section lists numerous items such as Sales Organization, Yr/Mo. of Creation, and various Billing and Credit status fields. The main area is titled 'Standard \*' and contains filter fields for Exchange Rate Type (M), Display Currency (USD), Sales Organization, Distribution Channel, Org. Division, and Sales office. Below these filters is a grid titled '<No Bookmark Loaded>' with columns for Measures, Yr/Mo. of Creation, Net Value, and dates from 07.2020 to 01.2022. The grid displays data for Sales Organization OIBP, Sales Org OIBP, Sales Org Germany, and Sales Org US, with an overall result row.

Figure 285: Multidimensional Reporting Client

A MDRC is an easy-to-use end user reporting tool that is embedded in SAP S/4HANA, and comes with the installation of core SAP S/4HANA. No separate installation of this tool is needed.

The MDRC is available for cloud and on-premise deployments. The MDRC is based on ABAP Web Dynpro and uses the grid layout. When the report is launched, a default layout is presented to begin the analysis. The user can then add or remove elements of the report.

Key capabilities include drilldown, sort, filters, and free construction of the report using any attributes and measures. Many of the capabilities will be familiar to existing SAP ERP customers who use ABAP reports.

The client is limited to very basic OLAP reporting capabilities. When you launch a standard report, this appears in the MDRC.

## SAP Smart Business Cockpits and KPI Tiles



Figure 286: SAP Smart Business Cockpits and KPI Tiles

Smart Business cockpits deliver out-of-the-box Key Performance Indicators (KPIs) organized into tile groups. You can also create your own tile groups.

As shown in the figure, *SAP Smart Business Cockpits and KPI Tiles*, the tiles highlight key information at a glance. Numbers can be color coded to represent different levels of alert. The surface of the tile can show simple numbers or chart snippets. The information on the tile is updated in real time. You can reorganize tiles to form new groups in a cockpit. In addition, you can configure each tile with additional drilldown capabilities. Tiles can be single size or dual size.

When you click a KPI tile in the group, you launch an evaluation that provides more information to break down the individual KPI, in order to provide drilldown capabilities and appropriate actions. We call this Insight to Action.

For example, you may see a KPI tile that shows a missed profit target for your project in red. When you click the tile, you see a breakdown of costs in a bar chart. You can drill down on the highest cost to reveal some high spending on travel expenses. You then drill down to the individual expense postings. You realize some of the expenses are wrongly posted to your project, so you click the button to reassigned costs to a different cost center, all on the same screen. The KPI tile immediately reflects the adjustment, and now the profit figure is back in green.

Customers can create their own KPI tiles and configure drilldowns.



**Query Browser**

The screenshot shows the SAP Query Browser interface. At the top, there's a header with the SAP logo and the title "Query Browser". Below the header, the page title is "Analytical Queries". On the right side, it shows "1145 Views". The main content area is a table listing various analytical queries. Each row contains a checkbox, the query name, a brief description, the application component, and a detailed description of its columns. A search bar is located at the top right of the table. At the bottom right of the table, there are buttons for "Add Tags" and "Open for Analysis".

Analytical Queries				Views
Show All	View Name	View Description	Application Component	Matched In
<input type="checkbox"/>	C_FinancialStatementKPI	KPIs based on Financial Statements	FI-GL-IS	Columns:PinOpgProfitAmtInGlobCrcy, 25 more
<input type="checkbox"/>	C_FinStatisticalKeyFigureItem	Statistical Keyfigures per period	FI-FIO-GL	Columns:StatisticalKeyFigurePlanQty, 21 more
<input type="checkbox"/>	C_ProfitCenterPlanActQ2701	Profit Center Plan Actual	FI-FIO-GL	Columns:PartnerProfitCenter, 10 more
<input type="checkbox"/>	C_ProfitCenterQ2701	Profit Centers Actuals	FI-FIO-GL	Columns:FiscalPeriod, 10 more
<input type="checkbox"/>	C_StatisticalKeyFigureItem	Statistical Key Figure Items	FI-FIO-GL	Columns:StatisticalKeyFigureCategory, 10 more
<input type="checkbox"/>	C_FinTransFcstHistFeeQry	Fin. Trans.: Hist/Fcstd Fee Amt - Query	FIN-FSCM-TRM	Columns:FinTransFlowPayAmtInDspCrcy, 9 more
<input type="checkbox"/>	C_FinTransHistFcstFeeQuery	Fin Trans Histl Fcst Fee - Query	FIN-FSCM-TRM	Columns:FinTransFlowNumber, 9 more
<input type="checkbox"/>	C_ProfitAndLossQ2901	Profit Loss Actuals	FI-FIO-GL	Columns:PartnerProfitCenter, 9 more
<input type="checkbox"/>	C_TrsyMktRskKeyFigValueQry	Treasury Market Risk Key Figure Value Query	FIN-FSCM-TRM-MR	Columns:FinancialInstrProductCategory, 9 more
<input type="checkbox"/>	C_CostCenterStatKeyFigSemTag	Cost Center Ststcl Key Figure KPI	FI-FIO-GL	Columns:IntmdStatisticalKeyFigFixedQty, 8 more
<input type="checkbox"/>	C_HistFinancialStatusQuery	Financial Status History - Query	FIN-FSCM-TRM	Columns:FinancialTransaction, 8 more
<input type="checkbox"/>	C_ProfitCenterSemanticTag	Profit Center with Semantic Tag Query	FI-FIO-GL	Columns:RevenueAmtInFreeDefinedCrcy1, 8 more
<input type="checkbox"/>	C_FinancialPositionQuery	Financial Status Query	FIN-FSCM-TRM	Columns:FinancialTransaction, 7 more
<input type="checkbox"/>	C_FinancialStatusQuery	Financial Status Query	FIN-FSCM-TRM	Columns:FinancialTransaction, 7 more
<input type="checkbox"/>	C_ProfitCenterStatKeyFigSemTag	Profit Center Ststcl Key Figure KPI	FI-FIO-GL	Columns:IntmdStatisticalKeyFigFixedQty, 7 more
<input type="checkbox"/>	C_RU_FinancialStatementItemQ_2	Financial Statement Item Query	FI-LOC-FI-RU	Columns:FixedAsset, 7 more

Add Tags   Open for Analysis

Figure 287: Query Browser

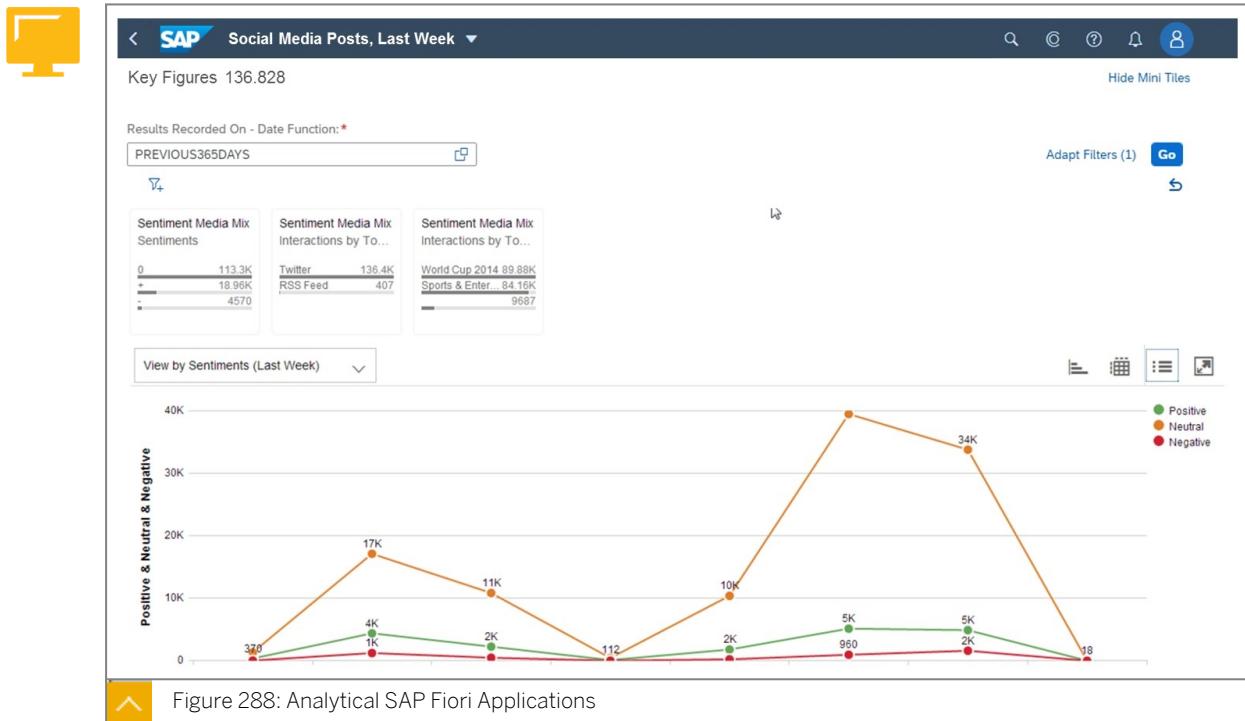
The Query Browser provides a list of all available analytical queries supplied by SAP. These queries can be launched from the Query Browser. Customers can also create their own analytical queries and these queries will also appear in the Query Browser.

You can search for analytical queries by name or by application component. You can also explore the data definition before launching the query.

It is possible to tag analytical queries, so they can easily be identified by key words or synonyms and are easily found. Analytical queries can be marked as Favorites, so that each user can quickly locate their most popular reports.

The reports are based on a Design Studio template and offer basic OLAP capabilities.

## Analytical SAP Fiori Applications



These are dedicated SAP Fiori applications that use a particular SAP Fiori template, which is optimal for analysis.

The figure, *Analytical SAP Fiori Applications*, shows an example of a delivered analytical SAP Fiori application. It uses the same VDM as all analytical applications in SAP S/4HANA to provide an instant response with real-time data.

End users are assigned to relevant analytical SAP Fiori applications to support them in their roles.

## SAP Analysis for Microsoft Office

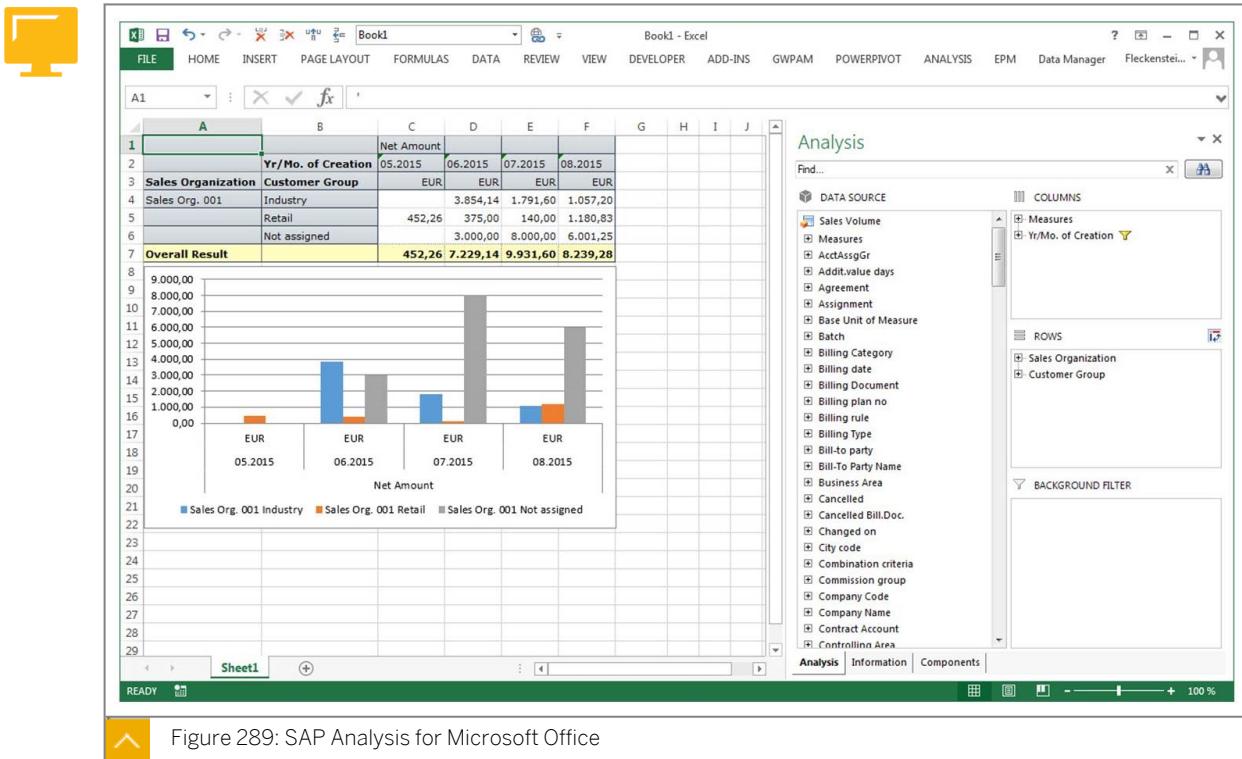


Figure 289: SAP Analysis for Microsoft Office

If more advanced OLAP features are required than are available in the built-in MDRC, the recommended tool is SAP Analysis for Microsoft Office.

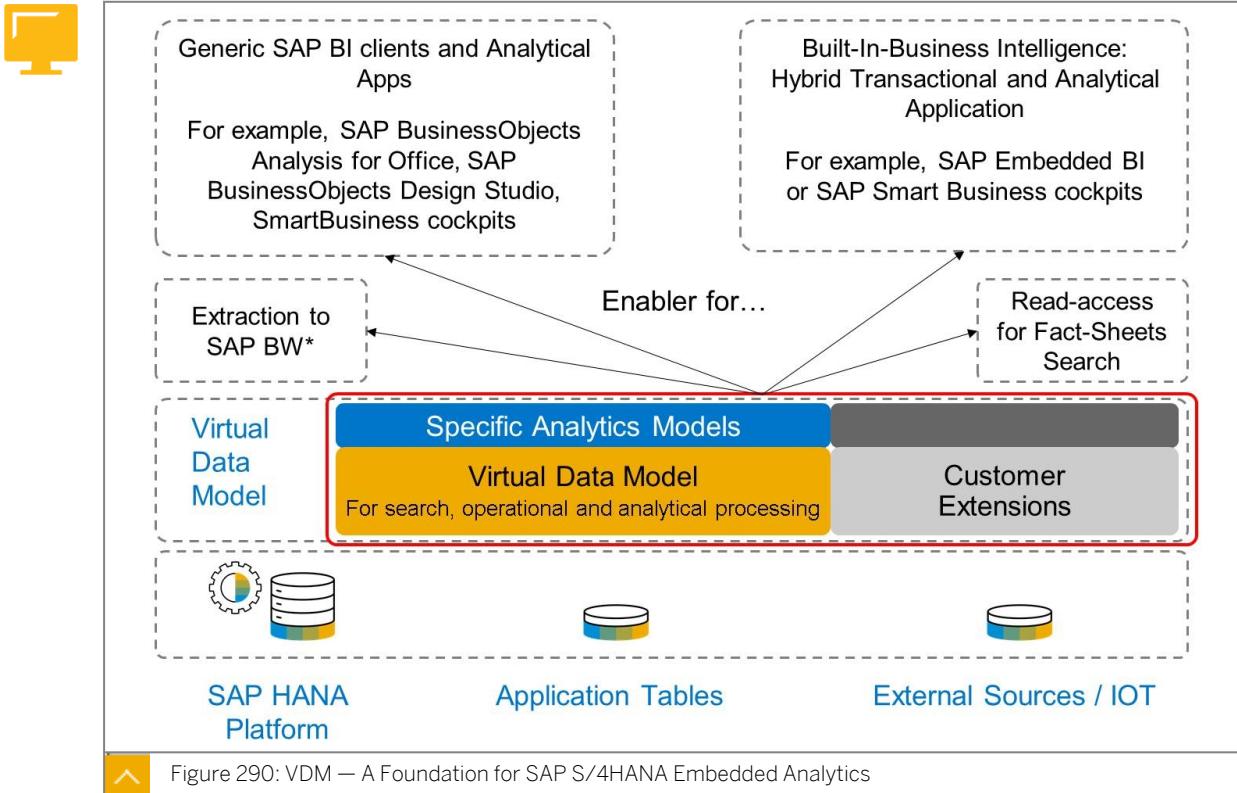
This powerful reporting tool can be used to create simple, Microsoft Excel-based reports all the way up to the most advanced, highly formatted reports, with full integration with Excel functions and features.

Integration with SAP Analysis for Microsoft Office is available for the on-premise edition of SAP S/4HANA. It is not available in the cloud.

This is a key tool used by financial controllers and planners, but its ease of use and familiar interface make it a popular choice, regardless of role. It is already used by many customers. It is the flagship reporting tool for SAP BW, and end users can reuse the skills they have already developed.

SAP Analysis for Microsoft Office uses a separate license, and is not included with SAP S/4HANA.

## Background Information: Virtual Data Model (VDM) and Its Implementation with SAP S/4HANA



The core data model is massively simplified for SAP S/4HANA. Huge numbers of tables that were used for materialized aggregations and unnecessary indexes have been removed. Hierarchical models have been flattened right down to the line item. We store only what is absolutely needed, and nothing else.

However, this efficient model is way too complex for direct consumption by analytic applications that need more business context to explain the meaning of the data. A layer that sits above the application tables is necessary. This is a logical layer that exposes business-ready views of the table data and adds extra meaning to the data, such as how it can be consumed (transactional or analytic), how the measures should be aggregated, and which measures are currently relevant.

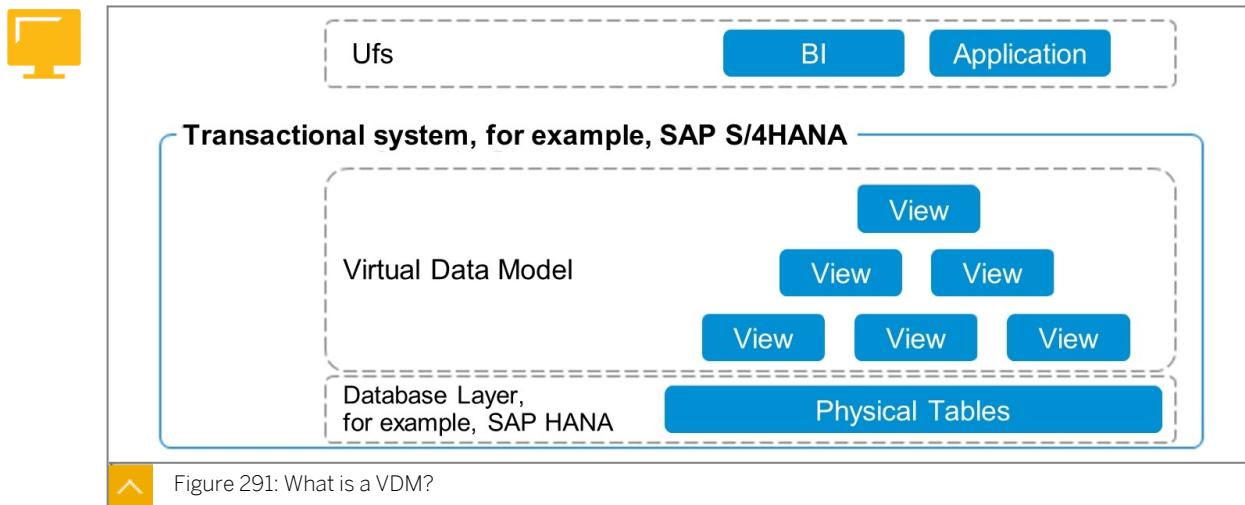
This layer is called the Virtual Data Model (VDM).

With the introduction of SAP HANA, SAP has developed a comprehensive VDM called SAP HANA Live. SAP HANA Live exposes all key ERP data from the underlying database tables into views that can easily be consumed by any BI tool. SAP HANA Live is still available and important for customers who run Suite on SAP HANA (SoH).

However, for SAP S/4HANA, SAP HANA Live is not relevant. We have made huge changes to simplify the SAP S/4HANA data model, and SAP HANA Live is based on the original, non-simplified data model.

For SAP S/4HANA, we have a brand new implementation of the virtual data model using ABAP-managed core data services (CDS).

## VDM



Database tables are generally not built for direct consumption by analytical applications. They do not have to be beautiful and, in fact, many tables are very complex and ugly. However, they were never meant to be on show. The reason tables are ugly is that the main goal of a table model is to provide a physical store of data, and this does not take the consumption of analytical applications into account. Optimal storage is their main goal, and this cannot always coexist with beauty.

A VDM is a hierarchy of views, in which each layer adds more business context, until the top layer is consumed by the application.

The lowest VDM layer sits on top of the database tables and consumes the most important data directly from the tables.

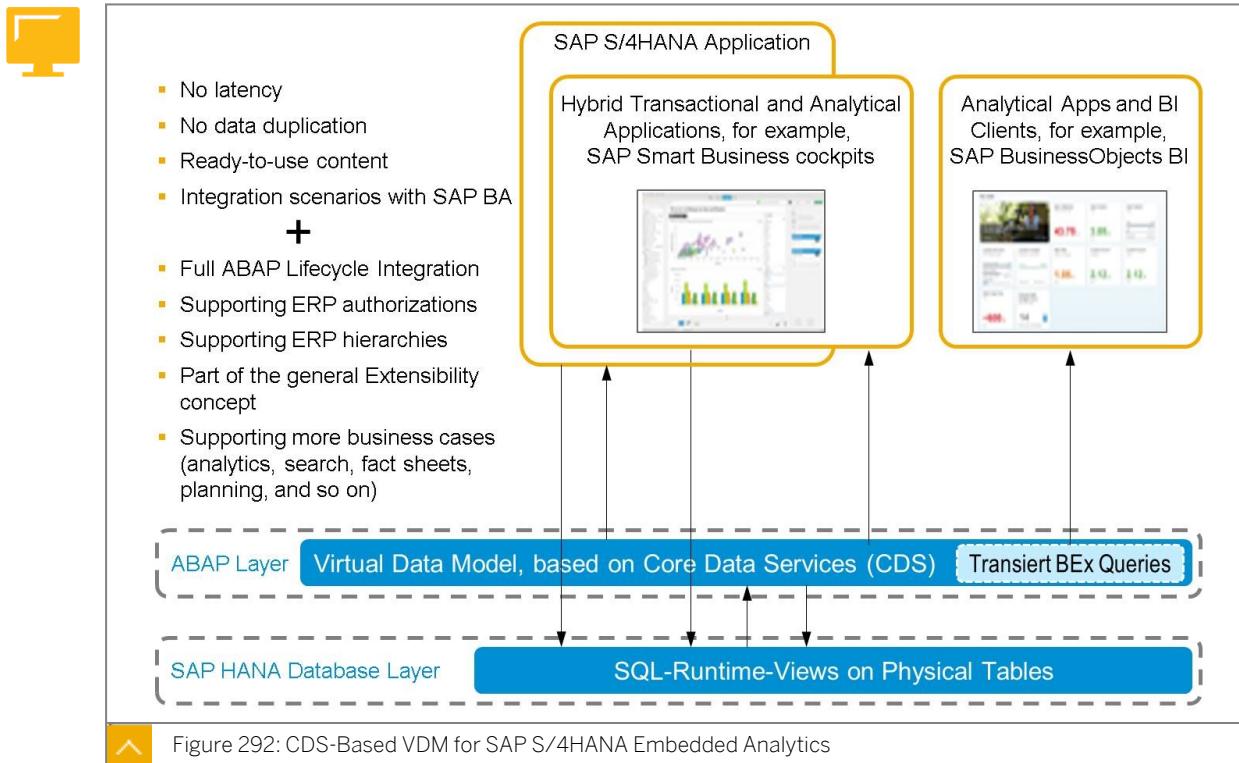
The next VDM layer consumes from the first virtual layer to refine the data, apply filters, add calculations, convert currencies, change the description of the columns, and so on.

There is no technical, fixed limit to the number of layers in a VDM. However, for consistency and governance, the number of layers and their purpose are usually well defined.

A VDM can be developed using scripting tools or graphical modeling tools. In the case of CDS, we develop the VDM using a scripting language, which is based on SQL, but with additional syntax and keywords to add more semantics.

The virtual data model contains views that are fully reusable in any application, and can be extended by customers.

## CDS-Based VDM for SAP S/4HANA Embedded Analytics



The SAP S/4HANA VDM is built with ABAP-managed CDS views. ABAP-managed CDS views are developed, maintained, and extended in the ABAP layer of the S/4HANA system. They are ABAP artifacts, and are physically stored in the ABAP repository, where the ABAP programs reside. They do not reside in SAP HANA.

It is advisable to refer to them carefully as ABAP-managed CDS views because there is another type of CDS view that is managed and stored in the SAP HANA platform. These are called SAP HANA native CDS views. These CDS views are not relevant to S/4HANA embedded analytics.

Many SAP S/4HANA embedded analytics tools directly consume the CDS views, but CDS views also generate transient BW InfoProviders. Think of these as dynamic BW InfoCubes that are created at runtime and disappear when the session ends.

This is good news, because it means you can build BW BEx queries using CDS views as the data source. It also means you can build reports with any SAP BI (BusinessObjects) tools, making use of the CDS views, with or without a BEx query.

A key concept behind CDS views is that they are the foundation for all consumption for SAP S/4HANA analytics and remove the need to develop the consumption layer in the database.

## ABAP-Managed CDS Views

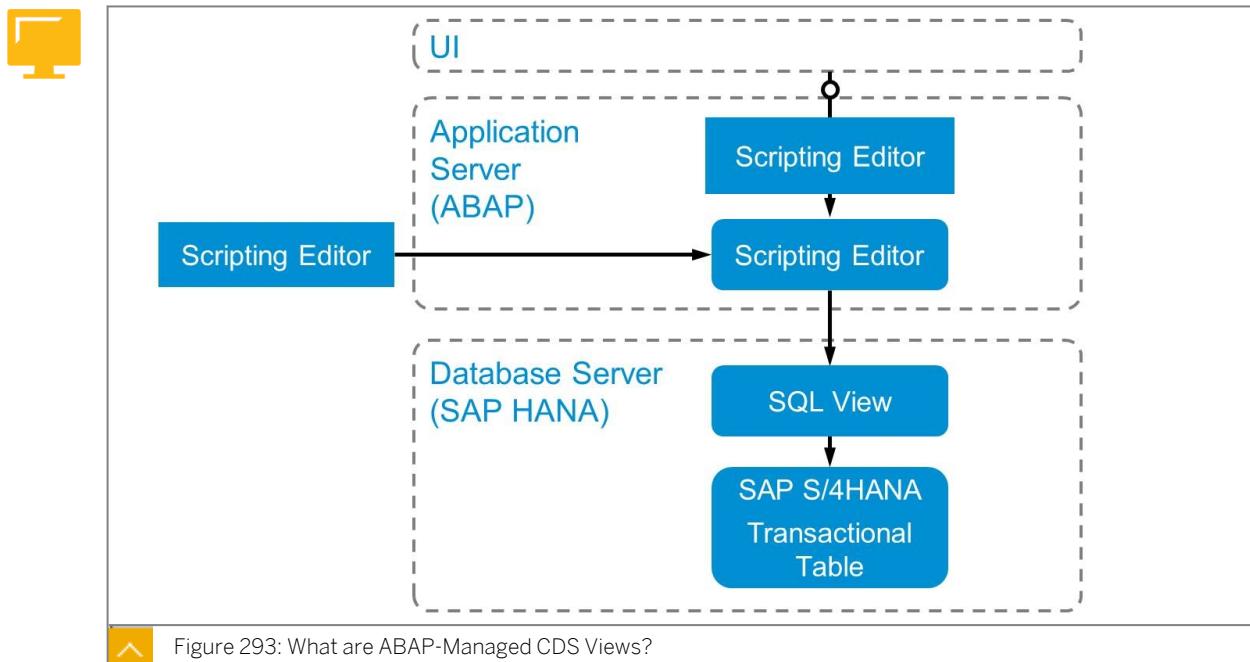


Figure 293: What are ABAP-Managed CDS Views?

A CDS view is built using SQL, but with added annotations. When the CDS view is activated, an SQL view is generated in the SAP HANA database.

Annotations are added to the native SQL to enrich the data when it arrives at the ABAP layer. The annotations describe how the view can be used (for example, for OLAP use only), restrictions (for example, for the country France only), and business context (for example, this account is a supplier, not a customer).

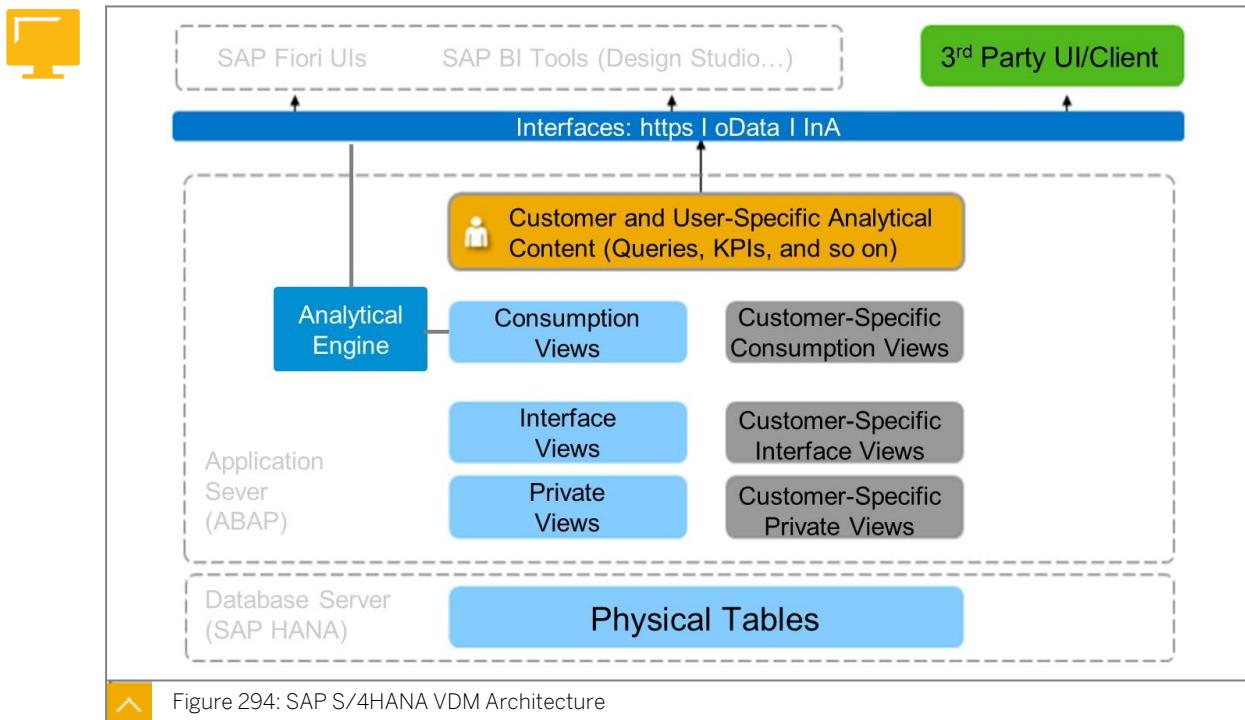
When the CDS view is processed, the result is exposed to a hidden, embedded analytics engine. This is the same engine used by BW. This engine has been developed over many years and is very powerful. It can handle very advanced, multidimensional queries that include complex hierarchies.

This is why a key component of SAP S/4HANA embedded analytics is the embedded BW. The BW analytic engine is necessary for query processing and to generate the transient providers.

CDS views do not contain ABAP code, just standard SQL Plus annotations to enrich the data. The runtime for CDS views is ABAP, so an SAP NetWeaver stack is required to execute CDS views. SAP S/4HANA is built on an SAP NetWeaver stack, so it is perfectly suited to this scenario.

CDS views are built using the ABAP editor for Eclipse. Currently, the CDS views are created using script (this makes copy and paste easy, and developers really like it), but later graphical tools may be developed with wizards to guide the creation.

## SAP S/4HANA VDM Architecture



CDS views are built in layers. The idea is to provide a set of base layer views (called private views) to offer a high degree of reusability of common views. Then you combine these private views to make them more useful at the next layer (interface views).

Finally, you add more semantics (such as filters) to provide a view that is optimal for consumption by the application code or analytic engine (consumption view).

At all layers, extensions can be added. Customers can also add their own views at any layer and combine them with SAP-delivered views.

This layering model is strictly enforced by SAP to provide governance and promote controlled extensibility.



Animation: SAP S/4HANA VDM Architecture

For more information on *SAP S/4HANA VDM Architecture*, please view the animation in the lesson *Using Embedded Analytics* in your online course.

## Unit 7

### Exercise 24

# Analyze Incoming Sales Orders



#### Simulation: Analyze Incoming Sales Orders

For more information on *Analyze Incoming Sales Orders*, please view the simulation in the lesson *Using Embedded Analytics* in your online course.

Open the Incoming Sales Order SAP Fiori application and launch a query to explore sales information.



#### Note:

In this exercise, when a value includes ##, replace ## with the number that your instructor assigned you.

1. On the SAP Fiori launchpad home page, start the *Incoming Sales Orders Flexible Analysis* app with the **USD** display currency.

2. Save your selections as **U## Variant**.

After saving the selection, restart the *Incoming Sales Orders Flexible Analysis* app and apply your saved selection.

3. Personalize the report layout to show the *Query Information* in the lower section first.

In the lower section show two columns, the *Data Analysis* and *Graphical Display* on the left and the *Query Information* on the right side.

Test whether your personalization is available when the report is restarted.

Reset the layout to the default.

4. Filter one month of (*Yr./Mo. of Creation*) by selection in the table columns and one sales organization with the context menu filter option *Select Filter Value*.

5. Use the *Drilldown* context menu option to exchange *Sales Organization* with *Sales Orders* in the rows and to delete the filter on *Yr./Mo. of Creation*.

6. For one sales order of your report, choose *Display Sales Order* (transaction VA03).

Compare the values of the Net Value.

Sales order: \_\_\_\_\_

Net Value: \_\_\_\_\_

7. Save and open a bookmark for the report navigation state of Data Analysis.

8. Export the report to Microsoft Excel.

9. Only show sales orders with a net value equal to or greater than **10000**.

Hide decimals and scale to show only thousands.

# Unit 7

## Solution 24

## Analyze Incoming Sales Orders



Simulation: Analyze Incoming Sales Orders

For more information on *Analyze Incoming Sales Orders*, please view the simulation in the lesson *Using Embedded Analytics* in your online course.

Open the Incoming Sales Order SAP Fiori application and launch a query to explore sales information.



Note:

In this exercise, when a value includes ##, replace ## with the number that your instructor assigned you.

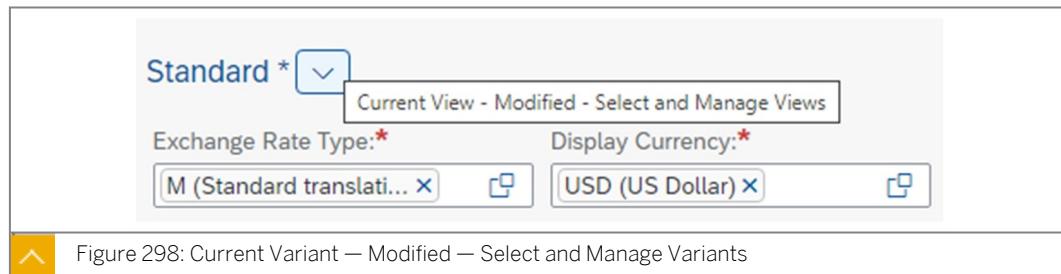
1. On the SAP Fiori launchpad home page, start the *Incoming Sales Orders Flexible Analysis* app with the **USD** display currency.
  - a) Start the *Incoming Sales Orders Flexible Analysis* app (Group: S4H00 - Embedded Analytics) from the SAP Fiori launchpad home page.
  - b) Enter **USD** as the display currency in the *Selection* area and choose *Enter*.

Figure 297: Display Currency

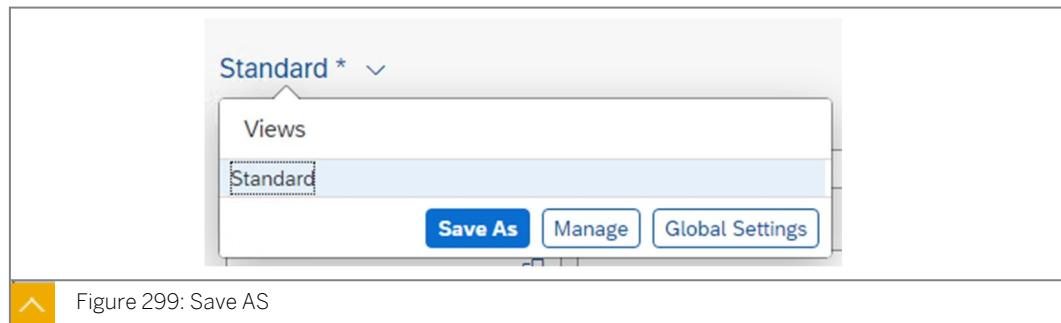
2. Save your selections as **U## Variant**.

After saving the selection, restart the *Incoming Sales Orders Flexible Analysis* app and apply your saved selection.

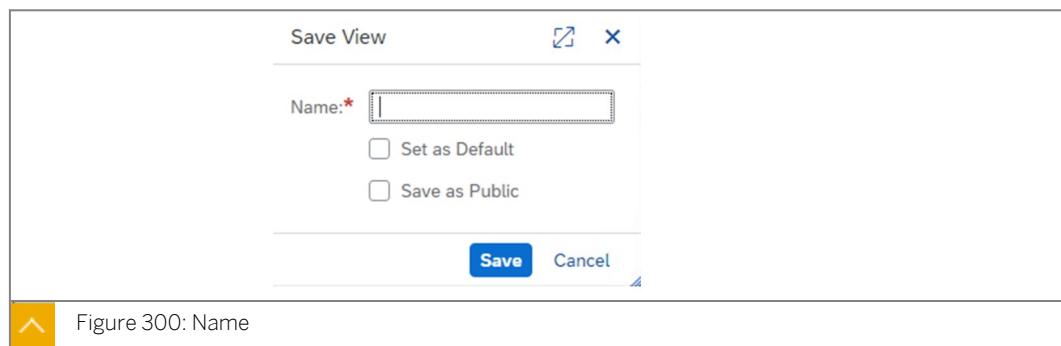
- a) Choose **Standard \* <v>** (*Current Variant – Modified – Select and Manage Variants*).



b) Choose Save As.



c) Enter the name **U## Variant**



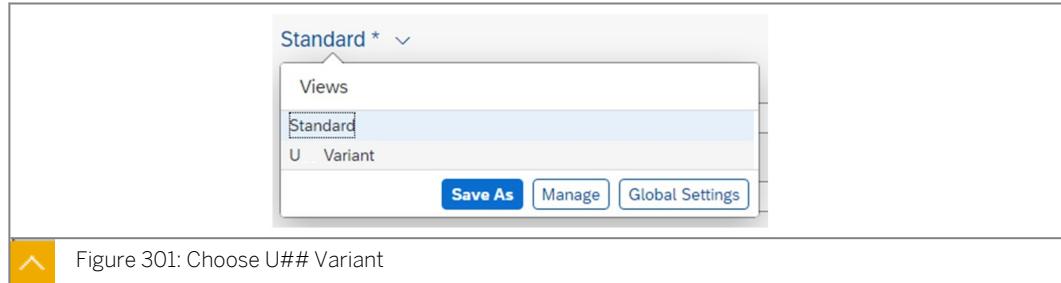
d) Choose Save.

e) Choose  to navigate back to the SAP Fiori launchpad home page.

f) Start the *Incoming Sales Orders Flexible Analysis* app (Group: S4H00 - Embedded Analytics) from the SAP Fiori launchpad home page again.

g) Choose **Standard \* ▾ (Current Variant – Modified – Select and Manage Variants)**.

h) Choose *U## Variant* from the *Variants* drop-down box.



i) Choose Go.

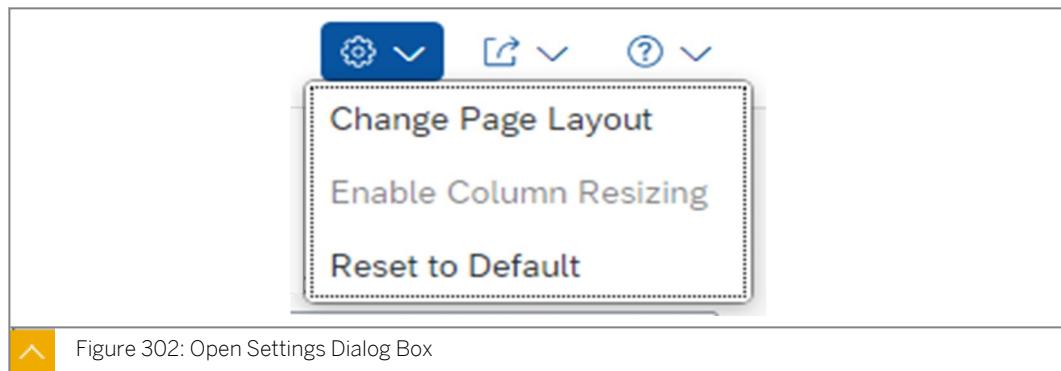
3. Personalize the report layout to show the *Query Information* in the lower section first.

In the lower section show two columns, the *Data Analysis* and *Graphical Display* on the left and the *Query Information* on the right side.

Test whether your personalization is available when the report is restarted.

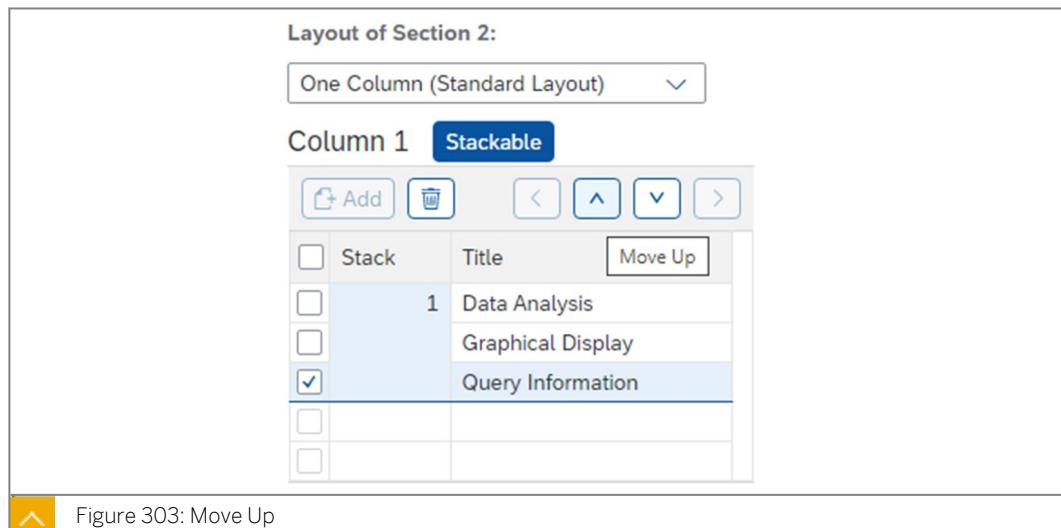
Reset the layout to the default.

a) Choose *Settings* dialog box in the upper right corner of the browser window and select *Change Page Layout*.



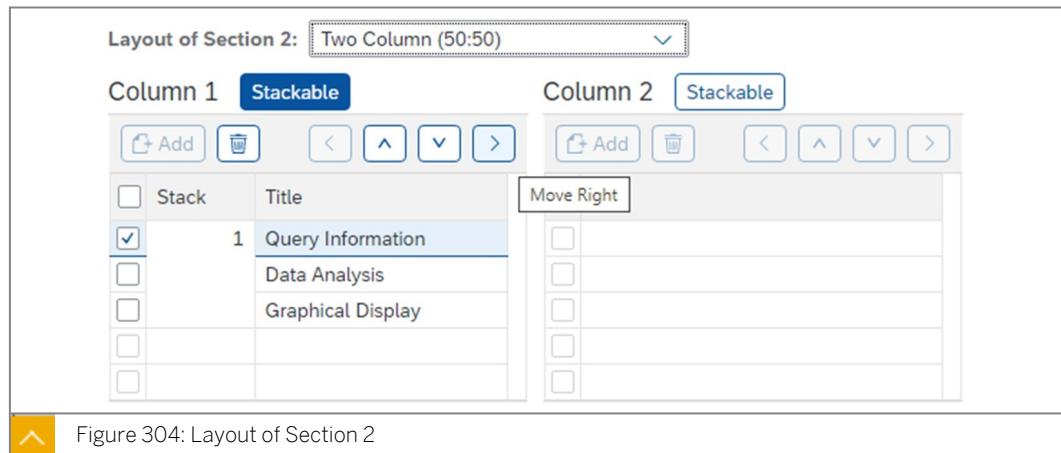
b) Select the *Query Information* row in the *Layout of Section 2*.

c) Choose *Move Up* twice.



d) In the *Layout of Section 2* drop-down box, select *Two Columns (50:50)*.

e) Select the *Query Information* row in *Column 1* and choose *Move Right*.



f) Choose Save.

g) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

h) Start the *Incoming Sales Orders Flexible Analysis* app (Group: S4H00 - Embedded Analytics) from the SAP Fiori launchpad home page again.

i) Choose **Standard \***  (*Current Variant – Modified – Select and Manage Variants*).

j) Choose *U## Variant* from the *Variants* drop-down box.

k) Choose Go.

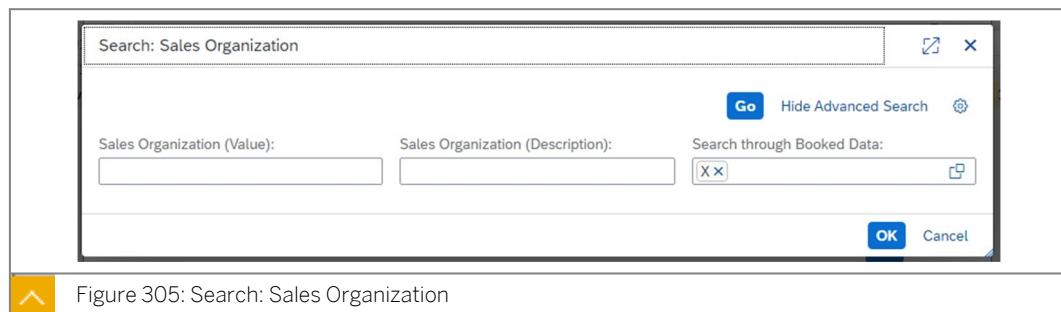
l) Choose *Settings → Reset to Default* in the upper right corner of the browser window.

4. Filter one month of (*Yr./Mo. of Creation*) by selection in the table columns and one sales organization with the context menu filter option *Select Filter Value*.

a) Right-click one month of *Yr./Mo. of Creation* (for example, 11.2015), and choose *Filter → Keep Filter Value*.

b) Right-click the *Sales Organization*, and choose *Filter → Select Filter Value*.

c) Choose  to open the search dialog of the *Sales Organization* input field.



d) Choose Go.

e) Select the 1710 (*Sales Org US*) row.

- f) Choose OK.
- g) Choose OK.
5. Use the *Drilldown* context menu option to exchange *Sales Organization* with *Sales Orders* in the rows and to delete the filter on *Yr./Mo. of Creation*.
- Right-click *Sales Organization*, and choose *Drilldown* → *Exchange with*.
  - Choose the row of *Sales Order*.
  - Choose OK.
  - Right-click *Yr./Mo. of Creation*, and choose *Filter* → *Delete Filter*.
6. For one sales order of your report, choose *Display Sales Order* (transaction VA03). Compare the values of the Net Value.
- Sales order: \_\_\_\_\_
- Net Value: \_\_\_\_\_
- Select one *Sales Order* in the rows, note the net value and the sales order number.
  - Right-click *Sales Order*, and choose *Navigate to*.
  - Choose *Define Link List*.
  - Select *Display Sales Order - VA03*.
  - Choose OK.
  - Choose *Display Sales Order - VA03*.
  - If necessary, Confirm any Messages / Information with *Continue (Enter)*.
  - Compare the net value of the transaction VA03 with the Net Value of the report.

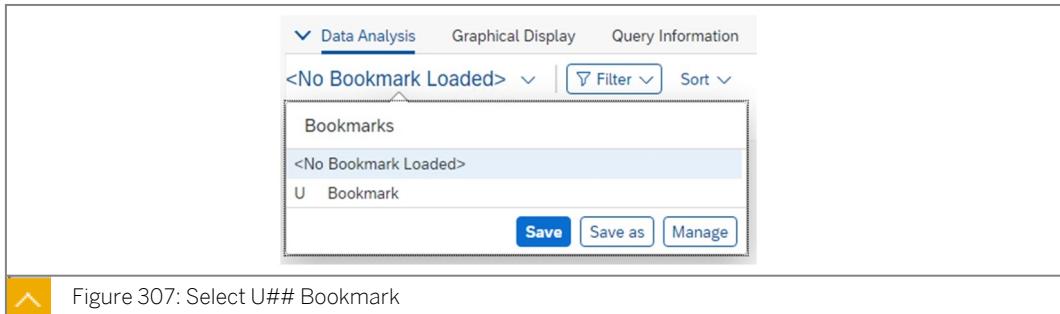


Note:

The transaction VA03 has to be called in system T41, client 400.

- i) Close the *Display Standard Order : Overview* browser tab.
7. Save and open a bookmark for the report navigation state of Data Analysis.
- In the *Data Analysis* tab, choose <No Bookmark Loaded> (*Current Bookmark — Select and Mange Bookmarks*).
- Figure 306: Current Bookmark — Select and Mange Bookmarks
- Choose *Save as*.
  - Enter the *Bookmark Name* **U## Bookmark**, and choose *Save*.

- d) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.
- e) Start the *Incoming Sales Orders Flexible Analysis* app (Group: S4H00 - Embedded Analytics) from the SAP Fiori launchpad home page again.
- f) Select *U## Bookmark* from the *Current Bookmark — Select and Mange Bookmarks* drop-down box.



8. Export the report to Microsoft Excel.

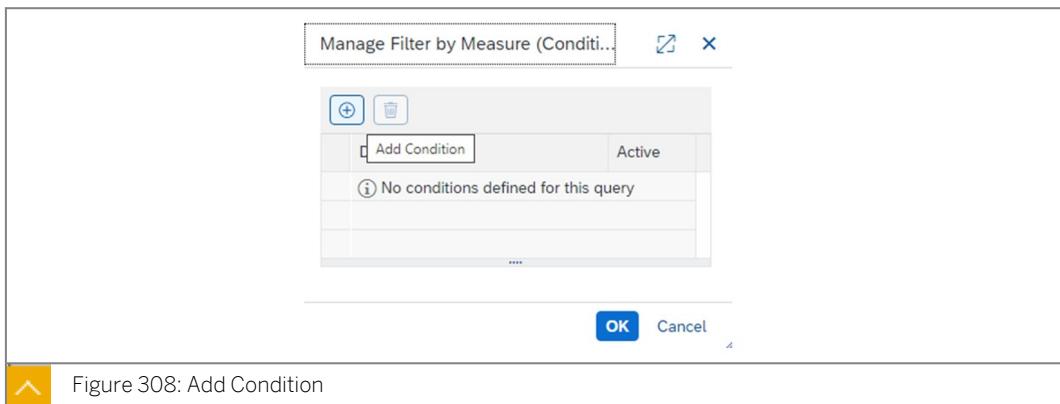
- a) Choose  (*Export*).
- b) Select *Export to Microsoft Excel*.
- c) Choose *Open* on the `export.xlsx` download window at the bottom of the screen.
- d) Close Microsoft Excel.

9. Only show sales orders with a net value equal to or greater than 10000.

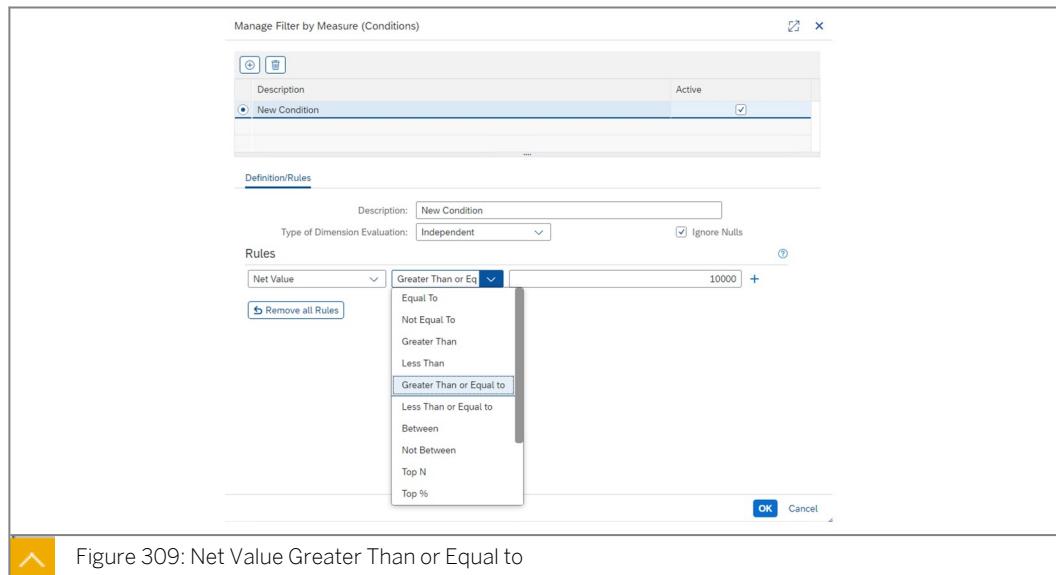
Hide decimals and scale to show only thousands.

- a) Right-click *Net Value*, and choose *Filter → Filter by Measure (Conditions)*.

- b) Choose  (*Add Condition*)



- c) For *Net Value*, choose *Greater Than or Equal to* and enter value 10000.



- d) Choose OK.
- e) Right-click *Net Value*, and choose *Measures* → *Number Format*.
- f) For *Scaling Factor*, select **1.000**, and for *Decimal Place*, select **0**.
- g) Choose OK.
- h) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.

## Unit 7

### Exercise 25

# Apply the Query Browser



Simulation: Apply the Query Browser

For more information on *Apply the Query Browser*, please view the simulation in the lesson *Using Embedded Analytics* in your online course.

Open the Query Browser SAP Fiori application and launch a query to explore Invoice Processing information.



Note:

In this exercise, when a value includes ##, replace ## with the number that your instructor assigned you.

1. Open the SAP Fiori app *Query Browser Browse Views* from the SAP Fiori launchpad home page and locate the *C\_APInvoiceProcgAnalysis* (Invoice Processing Analysis) analytical query.
2. Open the *C\_APInvoiceProcgAnalysis* analytical query for the Analysis.  
Use **the day before yesterday** as Start Date.
3. The query already shows *Total Amount* and *Number of Items* by *Company Code* and *Supplier*, but you need also the *Invoice Processing Status*.  
Use the *Navigation Panel* to find the dimension quickly.
4. Remove the *Company Code* dimension from the Rows to display a simpler result.
5. Show the result as a tabular display.
6. Create a new Tile for the *Invoice Processing Analysis*.

Use the following data for the new Tile:

Field	Value
Title	<b>Invoice Processing Analysis</b>
Subtitle	<b>S4H00</b>
Description	<b>Query Browser</b>
Group	My Applications

## Apply the Query Browser



### Simulation: Apply the Query Browser

For more information on *Apply the Query Browser*, please view the simulation in the lesson *Using Embedded Analytics* in your online course.

Open the Query Browser SAP Fiori application and launch a query to explore Invoice Processing information.



### Note:

In this exercise, when a value includes ##, replace ## with the number that your instructor assigned you.

1. Open the SAP Fiori app *Query Browser Browse Views* from the SAP Fiori launchpad home page and locate the *C\_APInvoiceProcgAnalysis* (Invoice Processing Analysis) analytical query.
  - a) Start the *Query Browser Browse Views* app (Group: S4H00 - Embedded Analytics) from the SAP Fiori launchpad home page.
  - b) In the Search field, enter the word **APInvoice** and choose *Enter*.  
The analytical query *C\_APInvoiceProcgAnalysis* appears in the list.
2. Open the *C\_APInvoiceProcgAnalysis* analytical query for the Analysis.  
Use **the day before yesterday** as Start Date.
  - a) To select the View, select the *C\_APInvoiceProcgAnalysis* checkbox.
  - b) On the bottom right of the screen, choose *Open for Analysis*.
  - c) Use the value help for *Start Date* and choose **the day before yesterday**.
  - d) Choose OK.
  - e) Choose Go.
  - f) The *Graphical Display* should appear.  
If the tabular display appears, switch to the *Graphical Display*.
3. The query already shows *Total Amount* and *Number of Items* by *Company Code* and *Supplier*, but you need also the *Invoice Processing Status*.  
Use the *Navigation Panel* to find the dimension quickly.
  - a) Click *Navigation Panel* in the top left side of the screen.

- b) Choose *Invoice Prog Status* from the *Available Fields* area and click the icon 

(*Add field to row axis*).

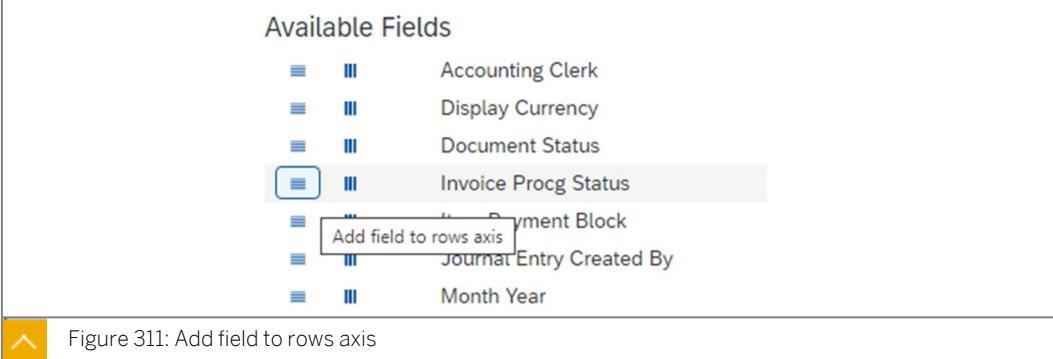


Figure 311: Add field to rows axis

Use the icon  (*Settings*) for Personalization the Graphical Display.

4. Remove the *Company Code* dimension from the Rows to display a simpler result.
  - a) Move *Company Code* from the *Rows* area to the *Available Fields* area (drag and drop).
5. Show the result as a tabular display.
  - a) Switch from *Graphical Display* to *Data Analysis*.

The tabular display appears.
6. Create a new Tile for the Invoice Processing Analysis.

Use the following data for the new Tile:

Field	Value
Title	<b>Invoice Processing Analysis</b>
Subtitle	<b>S4H00</b>
Description	<b>Query Browser</b>
Group	My Applications

- a) Choose the icon  (*Share*) on the top right side of the screen.

- b) Choose *Save as Tile*.

- c) Use the following data for the new Tile:

Field	Value
Title	<b>Invoice Processing Analysis</b>
Subtitle	<b>S4H00</b>
Description	<b>Query Browser</b>

Field	Value
Group	My Applications

d) Choose OK.

e) Choose  (SAP Logo) to go back to the SAP Fiori launchpad home page.



## LESSON SUMMARY

You should now be able to:

- Use Embedded Analytics with SAP S/4HANA



## Learning Assessment

1. With SAP S/4HANA embedded analytics, which tools are aimed at end users?

*Choose the correct answers.*

- A Query Browser
- B Design Studio
- C Analytical SAP Fiori applications
- D Query Designer
- E SAP Smart Business cockpits

2. Which of the following are typical tools used by key users to develop various analyses in SAP S/4HANA Embedded analytics?

*Choose the correct answers.*

- A SAP HANA Live Browser
- B KPI builder
- C Design Studio
- D Query Designer

3. What does a virtual data model provide?

*Choose the correct answer.*

- A A copy of the database optimized for analytical use
- B Reporting tools for users
- C Consumption-ready views of data
- D Ready-to-use business reports



## Lesson 1

Describing SAP Activate and Best Practices

337

### UNIT OBJECTIVES

- Describe SAP Activate and Best Practices



## Describing SAP Activate and Best Practices

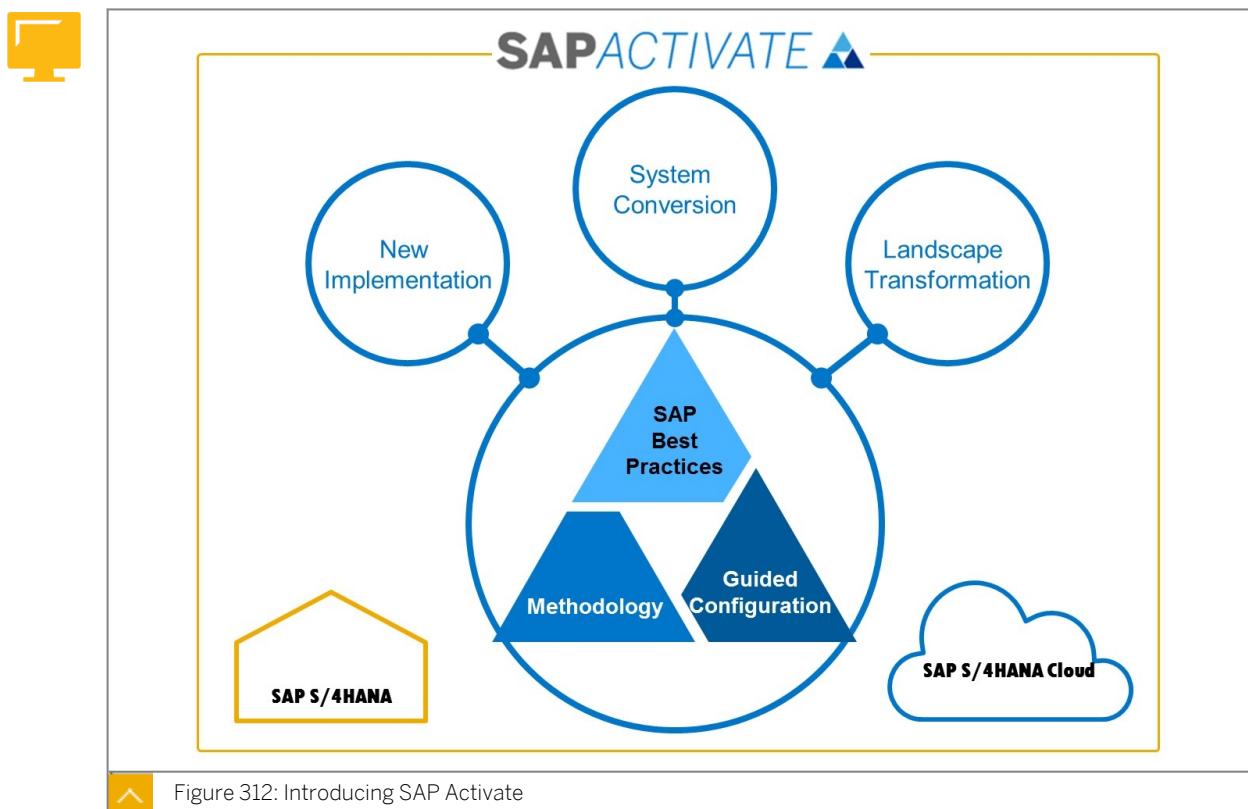


### LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Describe SAP Activate and Best Practices

### SAP Activate and Best Practices



SAP Activate is a combination of SAP Best Practices, configuration tools, and SAP Activate methodology to help customers simplify and accelerate the adoption of SAP Solutions such as SAP S/4HANA.

SAP Activate is a framework consisting of three closely integrated components:

- **SAP Best Practices**

These are ready-to-run business processes optimized and following industry best practices.



Note:  
<https://rapid.sap.com/bp>

- **Methodology**

This is a comprehensive road map to ensure a well-managed and accelerated implementation project and continuous optimization of the solution.

- **Guided configuration**

These are tools to help activate SAP Best Practices content and make customized adjustments.

When designing the implementation experience for customers who are moving to SAP S/4HANA, we must consider the different scenarios that the customers will follow along with the flexibility of choice of deployment. SAP Activate supports the following deployment scenarios of SAP S/4HANA:

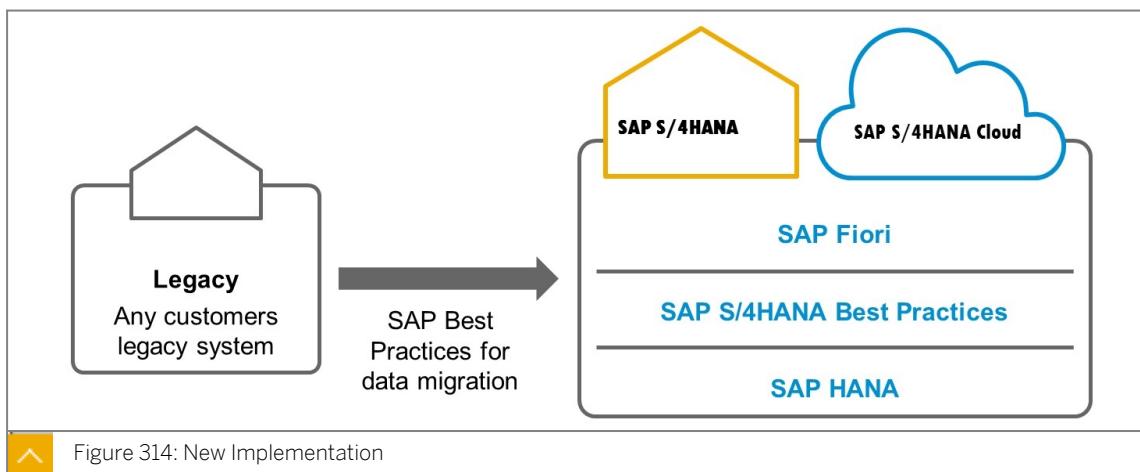
- New implementation
- System conversion
- Landscape transformation



Animation: Introducing SAP Activate

For more information on *Introducing SAP Activate*, please view the animation in the lesson *Describing SAP Activate and Best Practices* in your online course.

### New Implementation Scenario



In the figure, *New Implementation*, we focus on the first scenario where customers are coming from any legacy system. This includes SAP Business Suite customers who want to start again with a new installation of SAP S/4HANA or move to the cloud, rather than convert their existing system.



### Animation: New Implementation

For more information on *New Implementation*, please view the animation in the lesson *Describing SAP Activate and Best Practices* in your online course.

### Implementation Steps for SAP S/4HANA

This scenario includes the following key steps for an SAP S/4HANA implementation:

- Installation of SAP NetWeaver Application Server ABAP 7.5 based on SAP HANA.
- Installation of SAP S/4HANA.
- Installation of SAP Fiori for SAP S/4HANA.
- Activation of the required business processes.
- Migration of business data from legacy systems.

### Implementation Steps for SAP S/4HANA Cloud

For SAP S/4HANA Cloud, there is no installation of the SAP S/4HANA software required. Customers simply need to do the following:

- Activate the required business processes
- Migrate business data from legacy systems

Remember that the implementation project does not start from scratch. The initial configuration of SAP S/4HANA is based on a pre-configured system, providing ready-to-run business processes with sample data, and this marks the starting point.

### Existing SAP System Conversion Scenario

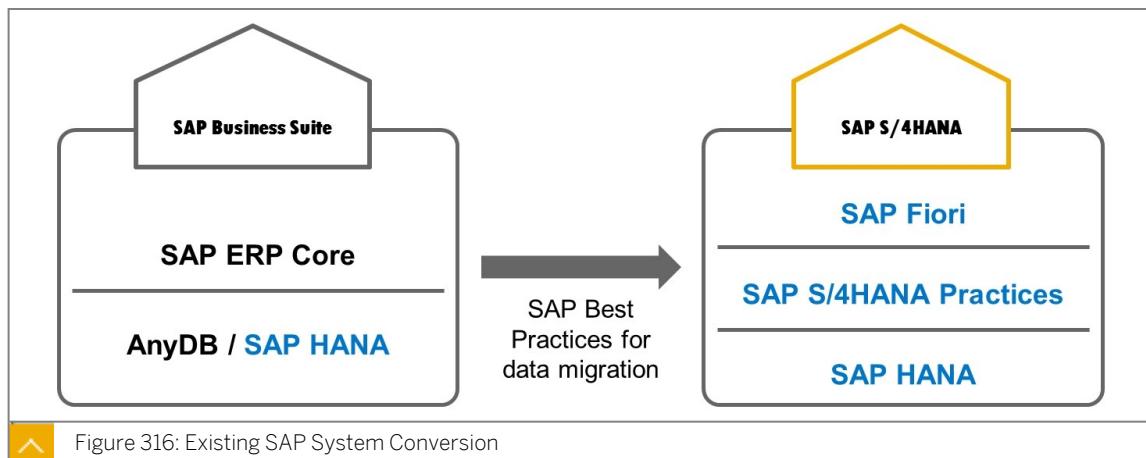


Figure 316: Existing SAP System Conversion

### Conversion Scenario Steps

The second scenario, referred to as system conversion, is focused on existing SAP Business Suite customers who want to convert their current system into an SAP S/4HANA system. This includes the following key steps:

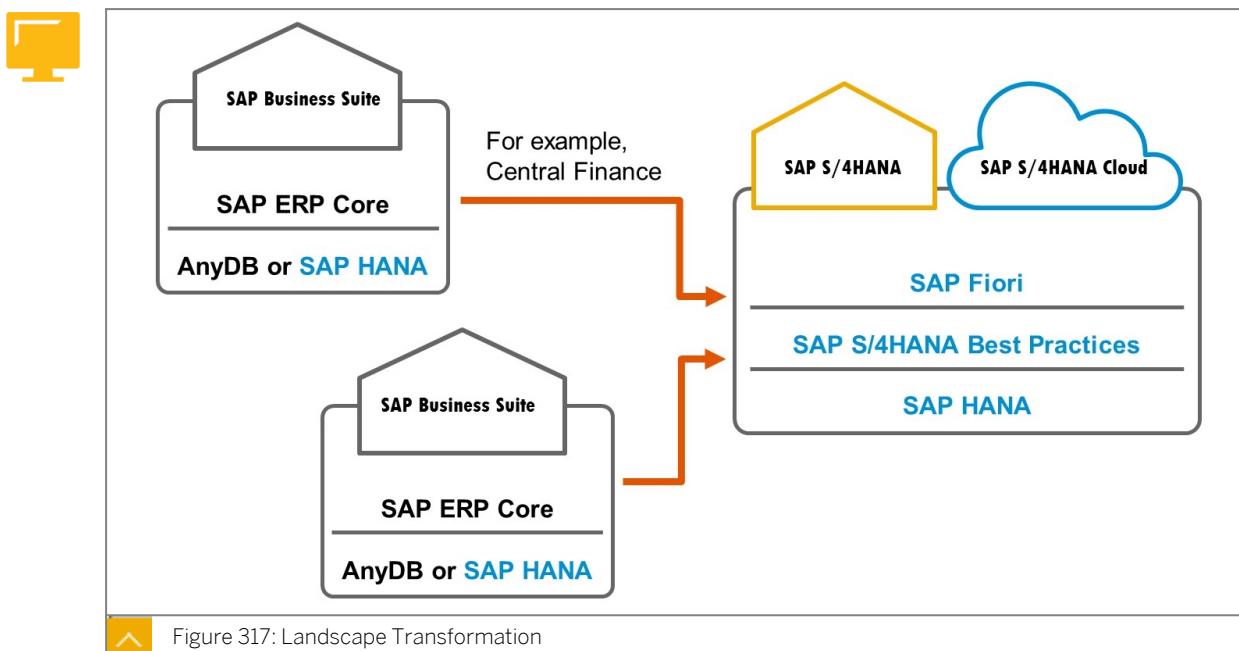
- Update your system to SAP NetWeaver Application Server ABAP 7.5.

- Migrate the database to SAP HANA, but only in cases in which the SAP Business Suite system is not yet on SAP HANA.
- Install SAP S/4HANA and SAP Fiori for SAP S/4HANA.
- Migrate data from the old data structures to the new, simplified data structures.

The biggest advantage for customers choosing this option is the conversion without re-implementation. This means a non-disruptive approach for existing business processes, while still being able to transition over time to the simplified and innovative processes. The good news is that existing customizations are also converted.

It is important that we describe this scenario as conversion, rather than upgrade. We are converting from one SAP product to another SAP product. Upgrades are when we move to the newer version of a product we already run.

### Landscape Transformation Scenario



The third scenario supports SAP Business Suite customers who want to reorganize their current system landscape, and SAP S/4HANA plays a key role in the target landscape.

This applies, for example, where multiple legacy systems are consolidated into one target SAP S/4HANA system, or one legacy system is split up into multiple target SAP S/4HANA systems, perhaps to separate individual companies.

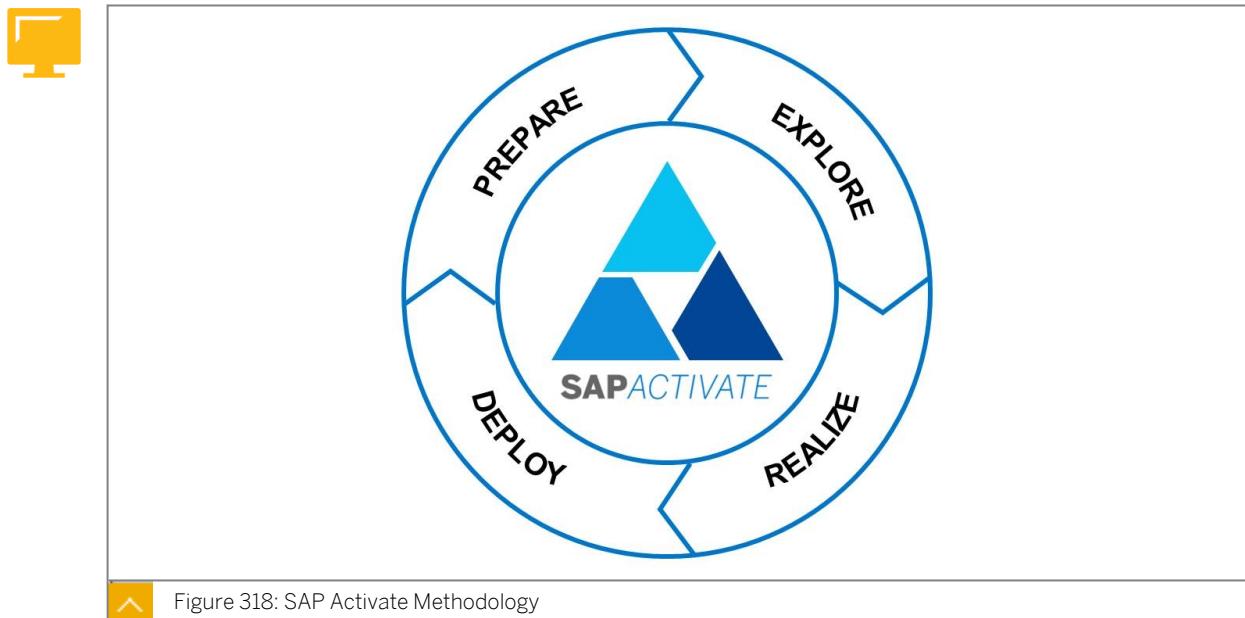
### Transformation to SAP S/4HANA Steps

In the example of a transformation to SAP S/4HANA edition, the following main technical steps are required:

- Possibly a new installation of S/4HANA or a conversion from ERP to S/4HANA.
- Additional migration steps that are based on SAP Landscape Transformation Replication Server (SLT) in order to move or replicate the data.
- Set up of a central finance instance. This approach is used so that individual legacy source systems (SAP or non-SAP) can begin to post their finance data in real time to a central

SAP S/4HANA system (cloud or on premise). This allows customers to get started early with SAP S/4HANA Finance, but keep their legacy applications running on existing systems until they are ready to fully convert.

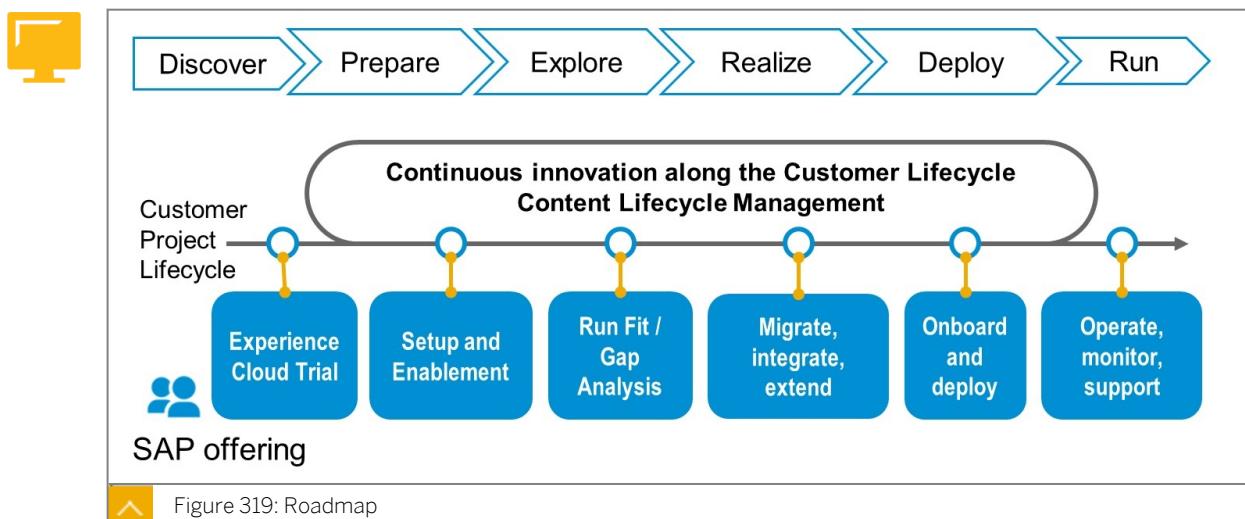
### SAP Activate Methodology



SAP Activate methodology provides one simple, modular, and agile road map that supports all SAP S/4HANA implementations, whether on premise or in the Cloud. It provides full support for the initial setup of SAP S/4HANA, and also provides support after go-live for continuous business innovation.

SAP Activate methodology enables co-innovation with customers, and is accessible for partners who can add their own content, perhaps to support specific industry or country requirements. It is the successor of the ASAP and SAP Launch methodologies and is optimized for an SAP S/4HANA implementation.

### SAP Activate Methodology Roadmap



SAP Activate methodology provides a comprehensive road map for a simplified deployment of SAP S/4HANA.

As shown in the figure, *Roadmap*, the road map starts by guiding customers through an exploration phase for SAP S/4HANA using a trial version. Customers can try out the SAP Fiori user experience across many pre-configured business scenarios.

Next, customers *PREPARE* and set up of their own scenarios, using examples from SAP Best Practices.

In the *EXPLORE* phase, using SAP Best Practices, we guide customers through a fit/gap analysis to identify what needs to be done to adapt the system to the exact requirements of the customer.

In the *REALIZE* phase, customers are guided through Best Practices integration with business networks, such as SAP Ariba, and cloud-based applications, such as SAP SuccessFactors.

This phase also guides customers through data migration, customization, and extensions, all following SAP Best Practices.

The *DEPLOY* phase ensures customers cover all the key areas of preparation for go-live, including user readiness facilitated by SAP Learning Hub, which is the SAP cloud-based training solution.

Finally, we ensure that customers are fully ready for the continuous operation and optimization of their solution, using SAP Best Practices for monitoring and support.

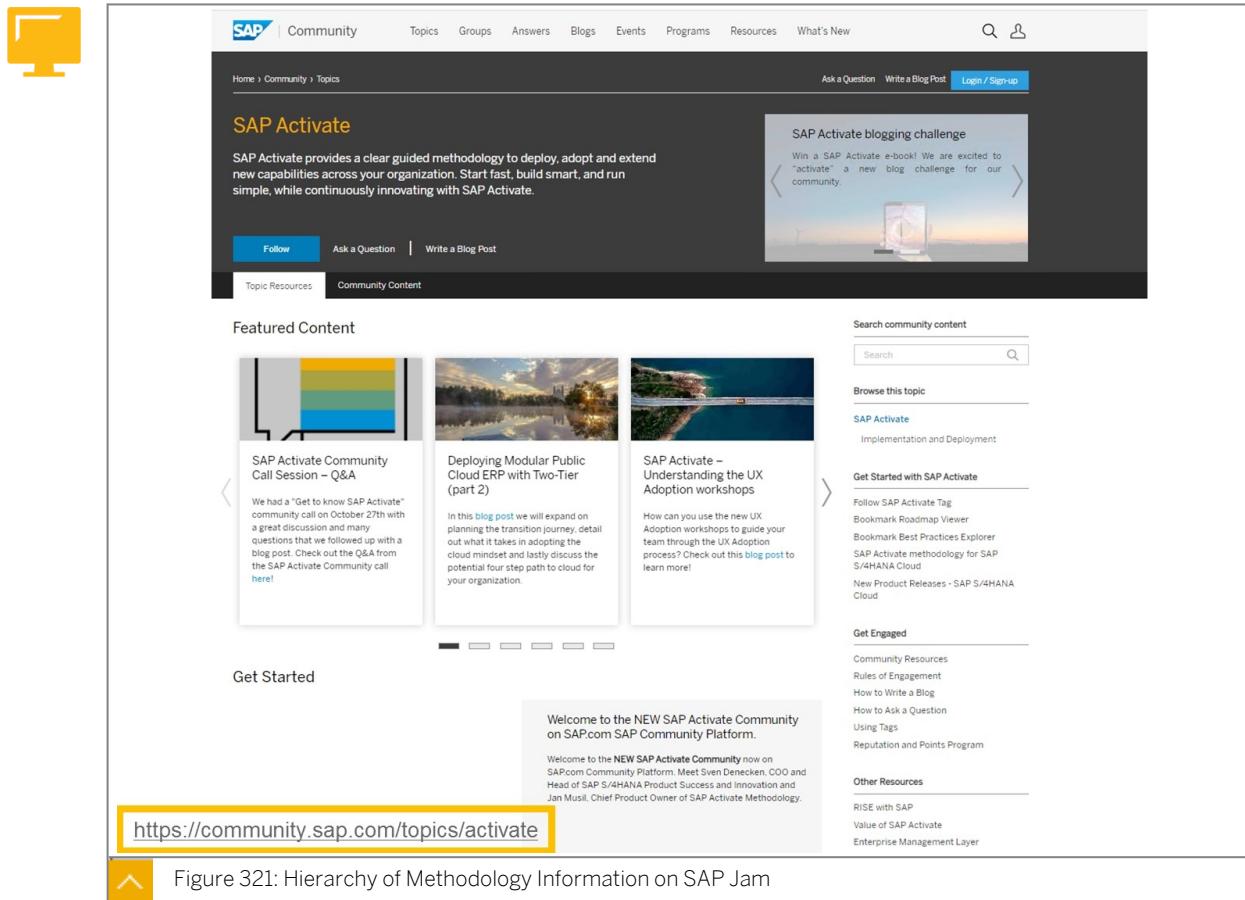
The *RUN* phase represents the deliverables and tasks to run and operate the SAP solution.



Animation: Roadmap

For more information on *Roadmap*, please view the animation in the lesson *Describing SAP Activate and Best Practices* in your online course.

## Hierarchy of Methodology Information on SAP Jam



The screenshot shows the SAP Activate page on the SAP Jam community. At the top, there's a navigation bar with links for Topics, Groups, Answers, Blogs, Events, Programs, Resources, and What's New. Below the navigation is a search bar and a user icon. The main content area has a header "SAP Activate" with a sub-header: "SAP Activate provides a clear guided methodology to deploy, adopt and extend new capabilities across your organization. Start fast, build smart, and run simple, while continuously innovating with SAP Activate." There are buttons for "Follow", "Ask a Question", and "Write a Blog Post". A sidebar on the right contains sections like "Topic Resources" (selected), "Community Content", "Search community content", "Browse this topic", "Get Started with SAP Activate", "Get Engaged", and "Other Resources". A "Featured Content" section displays three articles with images: "SAP Activate Community Call Session – Q&A", "Deploying Modular Public Cloud ERP with Two-Tier (part 2)", and "SAP Activate – Understanding the UX Adoption workshops". A "Get Started" section includes a welcome message from Sven Deneicken and a link to the landing page: <https://community.sap.com/topics/activate>.

SAP Activate methodology is available through the Methodology Jam community that is open to customers, partners, and internal SAP users.

The SAP Activate methodology is structured as follows in the Jam community:

- The landing page contains overview information, latest updates, and key links.
- From the landing page, users can navigate to a specific methodology phase and explore the key project management deliverables in that phase.
- If users wish to dive deeper, they can access the deliverable details, which provide descriptions of the deliverable and appropriate accelerators.

In addition to this structure, the Jam space contains collaboration areas. Users can comment and provide feedback on each item. They can also start discussions, engage with SAP experts, and share examples with the community. An advantage of hosting Activate on Jam is that it is a live environment, where the latest information is always available.

To request access SAP Activate methodology, use the link: <https://community.sap.com/topics/activate>.

## SAP Best Practices

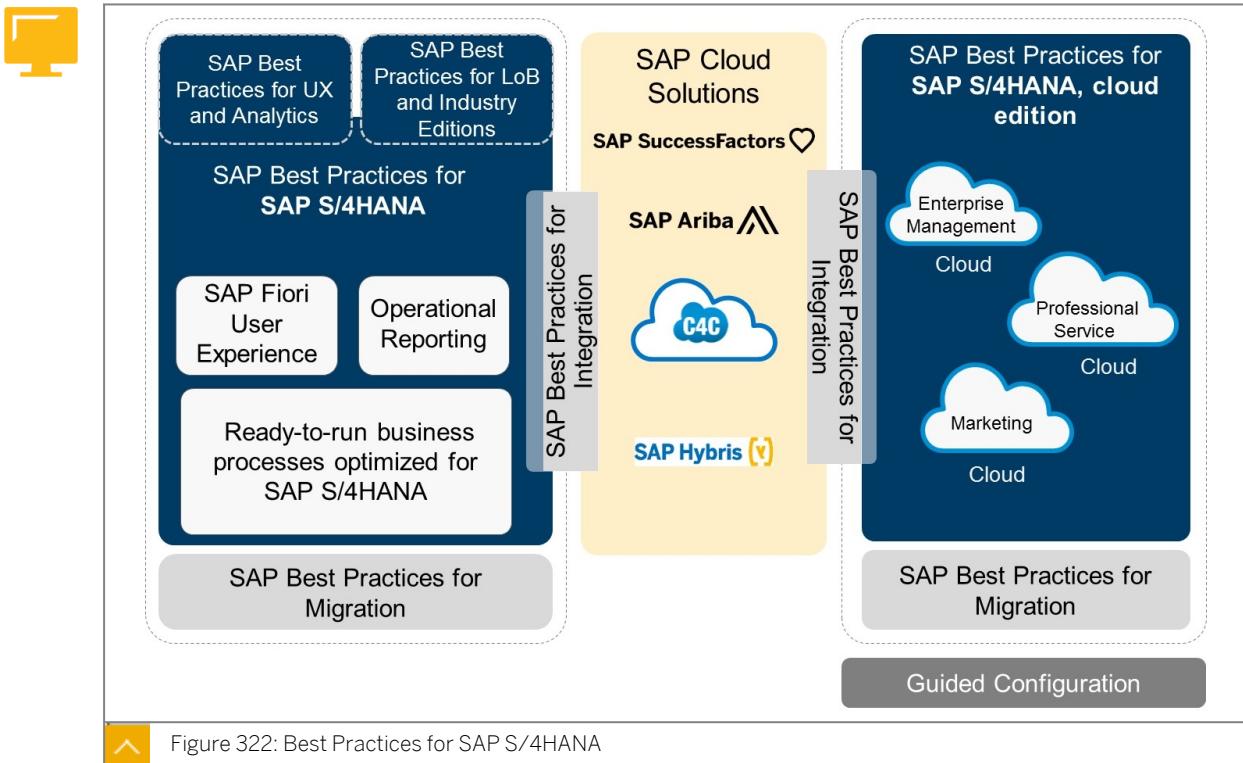


Figure 322: Best Practices for SAP S/4HANA

SAP Best Practices for SAP S/4HANA provide ready-to-run digitized analytical and operational business processes that cover the fundamental business processes of an enterprise, often referred to as the baseline. Whether you want to streamline your procure to pay processes, optimize your order to cash flow, or take advantage of simple finance, we provide a pre-configuration for many of your business priorities.

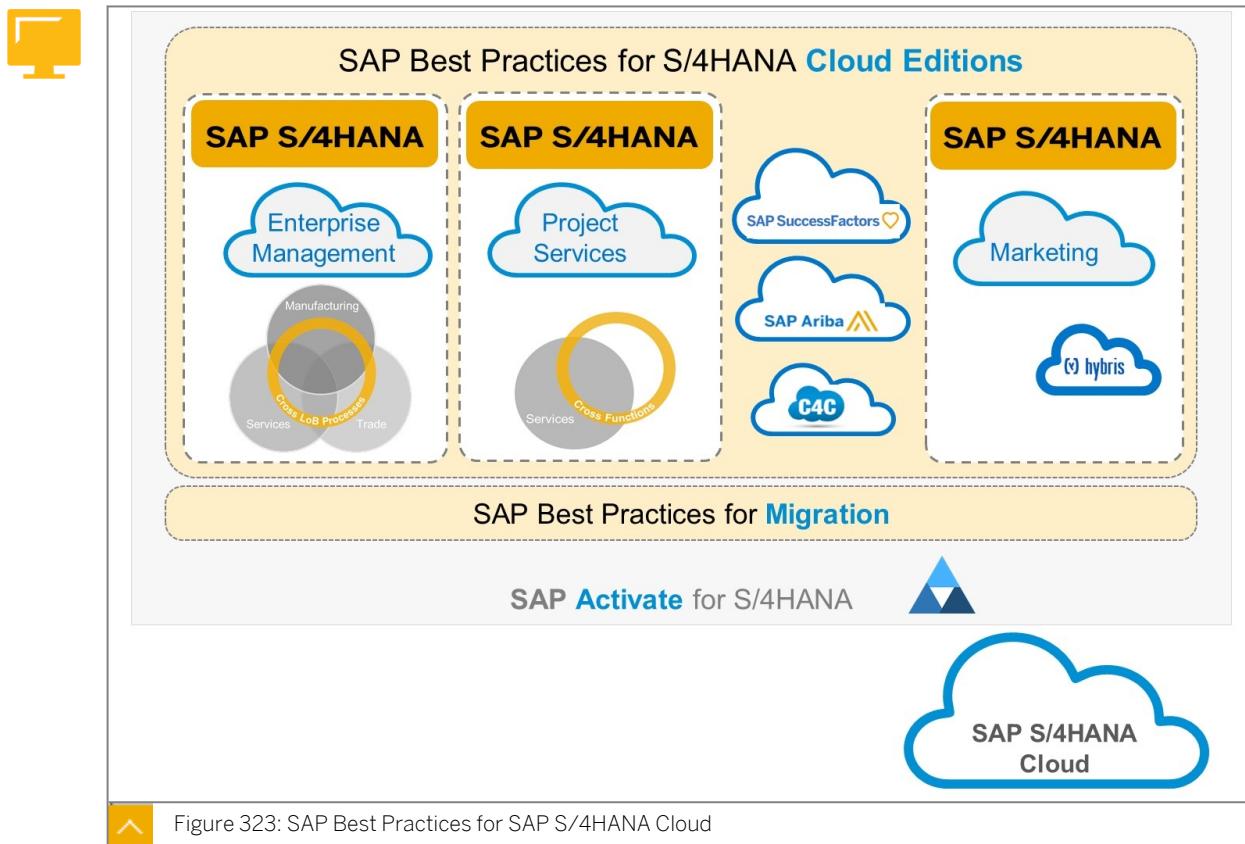
Let's take a look at an example of a new financial implementation. You can leverage parallel accounting to address multinational reporting requirements, deliver standard chart of accounts, pre-configured best practice solution for closing books, remaining IFRS compliant, tracking debits and credits, and calculating taxes.

These ready-to-run business processes are easily integrated with other cloud solutions, such as SAP SuccessFactors Employee Central or the Ariba Network. SAP provides Best Practices for integration with Cloud solutions. SAP offers a set of best practices content for line of business and industry solutions that are available for our customers to leverage and integrate with their SAP S/4HANA solution.

SAP also delivers Best Practices for UX with SAP Fiori.

The best practices packages are available in the SAP Service Marketplace. Customers can download the SAP Best Practices content and use it in their own environment. For Cloud implementations, the Best Practices processes will be pre-activated when the cloud solution is delivered.

## SAP Best Practices for SAP S/4HANA Cloud



Best Practices for SAP S/4HANA Cloud delivers ready-to-run processes, migration tools, and content for migration to move business data from the legacy system to the SAP S/4HANA Cloud.

Best practices are available for all cloud versions, including Enterprise Management, Professional Services, and Marketing Edition, and also for LoB cloud solutions, such as SAP Cloud for Customer, SAP Ariba, and SAP SuccessFactors.

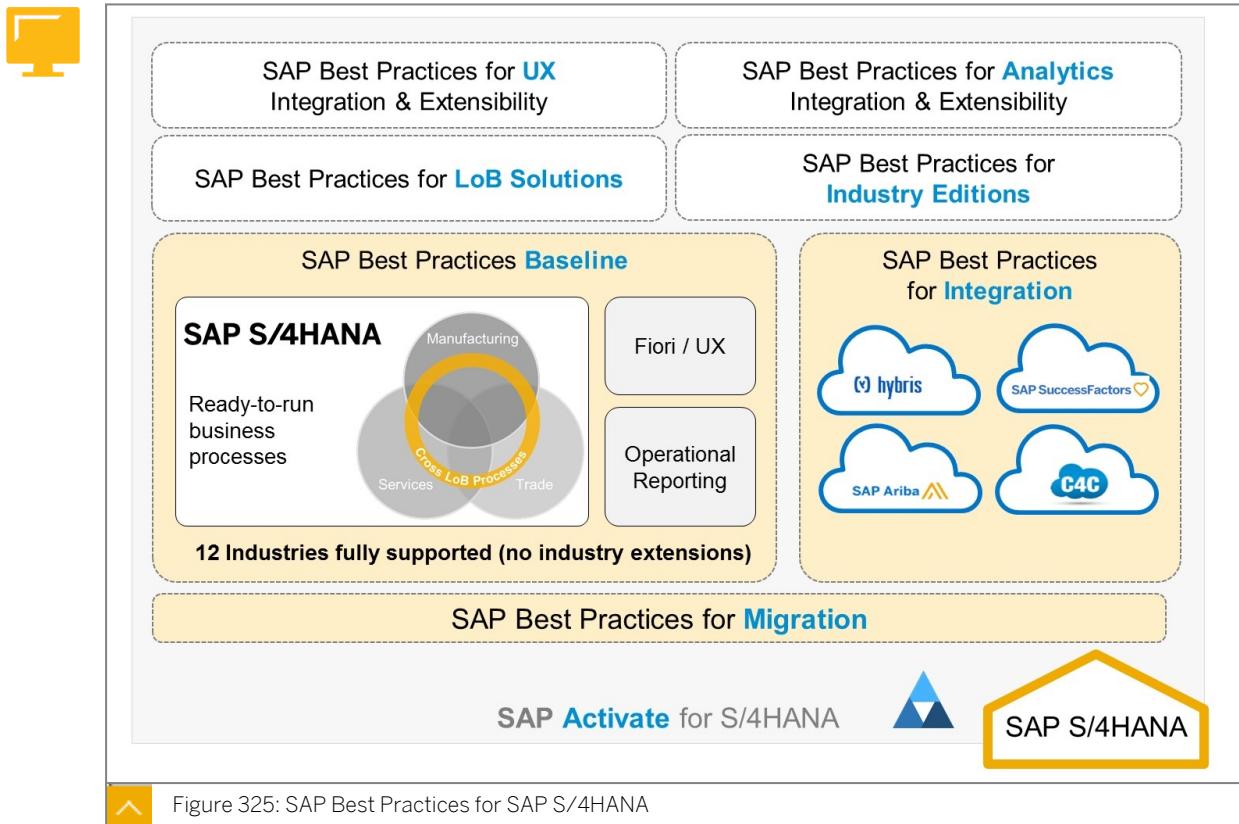


### Animation: SAP Best Practices for SAP S/4HANA Cloud

For more information on *SAP Best Practices for SAP S/4HANA Cloud*, please view the animation in the lesson *Describing SAP Activate and Best Practices* in your online course.

With the Cloud edition, customers can view all ready-to-run business processes in detail and decide how they fit with their own processes. Light customization is possible but the core processes cannot be changed.

## SAP Best Practices for SAP S/4HANA



In addition to ready-to-run business processes and migration tools and content, the on-premise edition of SAP Activate also delivers best practice content for the following:

- Setup and extension of SAP Fiori
- Analytics
- Industry content
- On-premise LoB solutions
- Integration with LoB cloud solutions



### Animation: SAP Best Practices for SAP S/4HANA

For more information on *SAP Best Practices for SAP S/4HANA*, please view the animation in the lesson *Describing SAP Activate and Best Practices* in your online course.

In the past, systems were configured from scratch. The new approach is to review according to configured processes and decide where the gaps exist. This approach works by identifying exceptions, rather than building everything from the beginning.

Unlike the Cloud edition, the on-premise edition allows for more customization possibilities. This includes configuration changes to the core processes.

## SAP Best Practices Explorer

SAP Best Practices content is available in the SAP Best Practices Explorer (<https://rapid.sap.com/bp/>). This is a Web channel experience to search, browse, and consume SAP Best Practices.

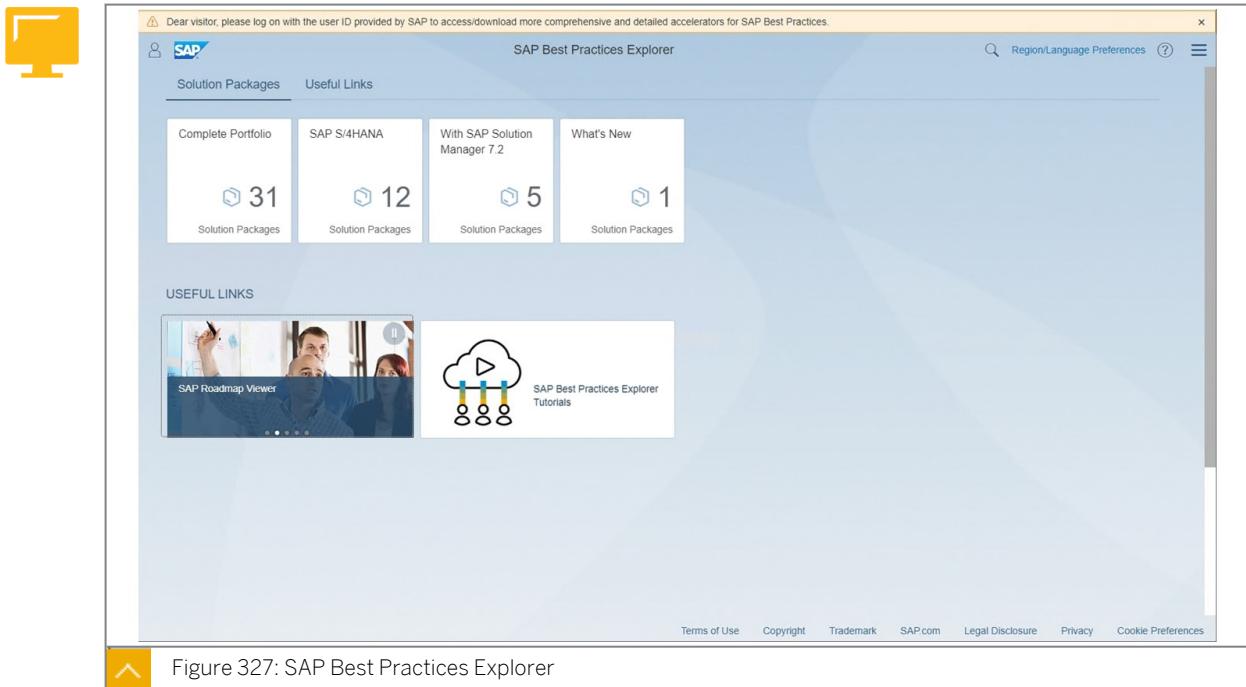


Figure 327: SAP Best Practices Explorer

**Note:**

In the figure, SAP Best Practices Explorer, you can see there is a message when following the link to the SAP Best Practices Explorer suggesting that those accessing the link should sign in with their SAP user Id (S-USER) to gain access to the detailed accelerators. For example, this access is required to view the Configuration Guides relating to the Building Blocks.

Useful Link: SAP Activate Roadmap Viewer: <https://roadmapviewer-supportportal.dispatcher.hana.ondemand.com/#>

The screenshot shows the SAP Best Practices Explorer interface. On the left, there's a navigation tree with categories like A-Z Index, SAP S/4HANA, On-Premise, Cloud, Automation, Industries, Line of Business, Technology, Cloud, and Recent Updates. Under SAP S/4HANA, there are 12 packages, and under On-Premise, there are 9. One package, "SAP Best Practices for SAP S/4HANA (on premise)", is highlighted with a yellow box. The main content area shows details for this package, including its description ("Accelerate and simplify the path to SAP S/4HANA by reducing time to value with SAP Best Practices that are tailored specifically to simplify the adoption of SAP S/4HANA"), version (USA, SAP S/4HANA 2021), language (English), and a direct link ([https://rapid.sap.com/bp/BP\\_OP\\_ENTPR](https://rapid.sap.com/bp/BP_OP_ENTPR)). Below this, there's a section titled "SOLUTION SCOPE" with a table of scope item groups: Finance, Human Resources, Sourcing and Procurement, and Manufacturing. Each group has a brief description.

Figure 328: SAP Best Practices Explorer and SAP S/4HANA

In the figure, *SAP Best Practices Explorer and SAP S/4HANA*, the screen shows an early example of the SAP Best Practices content available relating to SAP S/4HANA.

Having chosen a package to explore, select a localization version (similar to the example shown).

The page then navigates you through the SCOPE ITEM GROUPS, SCOPE ITEMS, and BUILDING BLOCKS.

## SAP Activate Guided Configuration

The diagram illustrates the SAP Activate Guided Configuration process flow:

- Key Message:**
  - Guided Configuration provides an assisted way to implement SAP Best Practices
  - For SAP S/4HANA cloud edition Guided Configuration facilitates the lifecycle management of the pre-configured business process content
- SAP S/4HANA cloud edition** is at the top.
- Solution Builder** (Activation of SAP Best Practice processes) leads to **Self-Service Configuration UI's** (Personalization of activated Best Practice processes).
- Self-Service Configuration UI's** leads to **Expert Configuration** (Adding new or changed processes to the activated processes).
- Expert Configuration** leads to **IMG and SAP Solution Manager** (Use configuration activities from IMG or configuration object links from SAP Solution Manager).
- A blue triangle icon on the right is labeled **Guided Configuration**.

Figure 329: SAP Activate Guided Configuration

SAP Activate Guided Configuration is a new approach, which assists with the implementation of SAP Best Practices.

For SAP S/4HANA Cloud, SAP Activate Guided Configuration also facilitates the lifecycle management of the pre-configured business processes from SAP and any additional customizing added by the customer.

We recognize two cases of how the configuration tools are used with SAP S/4HANA:

- Implementation of SAP S/4HANA cloud solution
- Implementation of SAP S/4HANA

As represented on the slide, both start with using the Solution Builder tool to activate the Best Practices.



#### Animation: SAP Activate Guided Configuration

For more information on *SAP Activate Guided Configuration*, please view the animation in the lesson *Describing SAP Activate and Best Practices* in your online course.

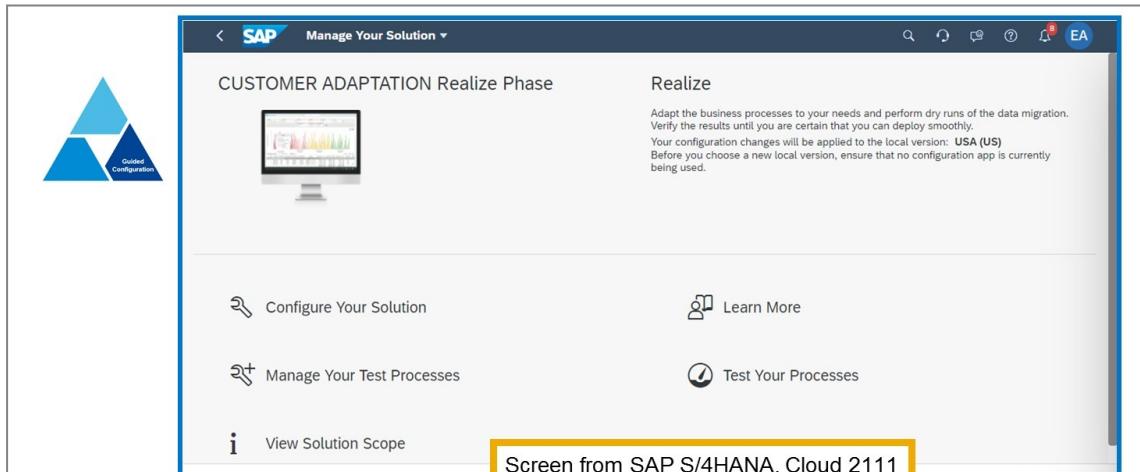
SAP provides various tools to support these efforts as follows:

- **SAP Solution Builder Tool:**
  - This tool is used to develop and structure configuration content according to the domain model of SAP.
  - All processes are modeled as scope items. Scope items are implemented through building blocks.
  - Content is not just an option, but an integral part of the product. SAP solution builder tool is used to activate this SAP Best Practices content in the customer system.
- **Self Service Configuration UIs (relevant for SAP S/4HANA Cloud editions):**
  - Next to the activation of ready-to-run business processes delivered by SAP Best Practices, customers typically want to personalize processes.
  - Personalization typically does not change a business process but adjusts settings to the customer needs.
  - SAP provides easy to use SAP Fiori applications for self-service configurations to support personalization.
- **Expert Configuration (relevant for SAP S/4HANA Cloud editions):**
  - Our experience has taught us that almost no customer project can be implemented without adjustments.
  - Customers typically want to add new processes or adjust pre-configured business processes delivered by SAP Activate.
  - SAP will make Expert Configuration available to support these needs.
  - With expert configuration, you can create your own scope items and (delta) building block(s) for any complementary content development at your side.

- **IMG and SAP Solution Manager:**

- Use configuration activities from the product Implementation Guide (IMG) or the configuration object links, which are added to the Configuration documentation in SAP Solution Manager.

## SAP S/4HANA — Guided Configuration



The screenshot shows the SAP S/4HANA Guided Configuration interface. At the top, there's a navigation bar with the SAP logo and 'Manage Your Solution'. Below it, a sidebar on the left features a blue triangle icon labeled 'Guided Configuration'. The main content area is titled 'CUSTOMER ADAPTATION Realize Phase' and shows a computer monitor icon. To the right, there's a section titled 'Realize' with instructions about adapting business processes and performing dry runs. Below this are four buttons: 'Configure Your Solution', 'Learn More', 'Manage Your Test Processes', and 'Test Your Processes'. At the bottom, there's a button for 'View Solution Scope'. A yellow box highlights the text 'Screen from SAP S/4HANA, Cloud 2111'.

**Configure Your Solution**  
For initial implementation & continuous innovation adoption

**Manage Your Test Processes**  
Authoring environment for test cases

**View Solution Scope**  
Evaluate activated business processes and country versions

**Learn More**  
Guided Product tours included in the product

**Test Your Processes**  
Business process driven, predefined automated test

**Screen from SAP S/4HANA, Cloud 2111**

**: only released for cloud edition**

Figure 331: SAP S/4HANA — Guided Configuration

SAP Activate Guided Configuration is available through the *Manage Your Solution* SAP Fiori application. It is business-process oriented. The following features are available:

- To access the self-service configuration UI, which allows customers to personalize the solution, choose *Configure your Solution*.
- To use the environment to prepare and execute the data migration, choose *Migrate Your Data*.
- To run automated tests of their processes, choose *Test Your Processes*. These tests run in the background and the test results provide a detailed account of all steps, including screen capture during the testing.
- To use training and on-boarding, choose *Learn More*.
- To know which processes have been activated in the system, choose *View Solution Scope*.



#### Animation: SAP S/4HANA — Guided Configuration

For more information on *SAP S/4HANA — Guided Configuration*, please view the animation in the lesson *Describing SAP Activate and Best Practices* in your online course.



#### LESSON SUMMARY

You should now be able to:

- Describe SAP Activate and Best Practices



## Learning Assessment

1. What are the three pillars of SAP Activate?

*Choose the correct answers.*

- A Methodology
- B Performance tuning
- C Guided configuration
- D SAP Best Practices

2. What are the three implementation scenarios covered by SAP Activate?

*Choose the correct answers.*

- A System conversion
- B New implementation
- C Landscape transformation
- D Database migration

3. Put the following SAP Activate methodology phases into the correct sequence.

*Arrange these steps into the correct sequence.*

- Prepare
- Explore
- Realize
- Deploy



## Lesson 1

Accessing SAP Services

357

### UNIT OBJECTIVES

- Access SAP Services



# Unit 9

## Lesson 1

# Accessing SAP Services



## LESSON OBJECTIVES

After completing this lesson, you will be able to:

- Access SAP Services

## SAP Service Offerings

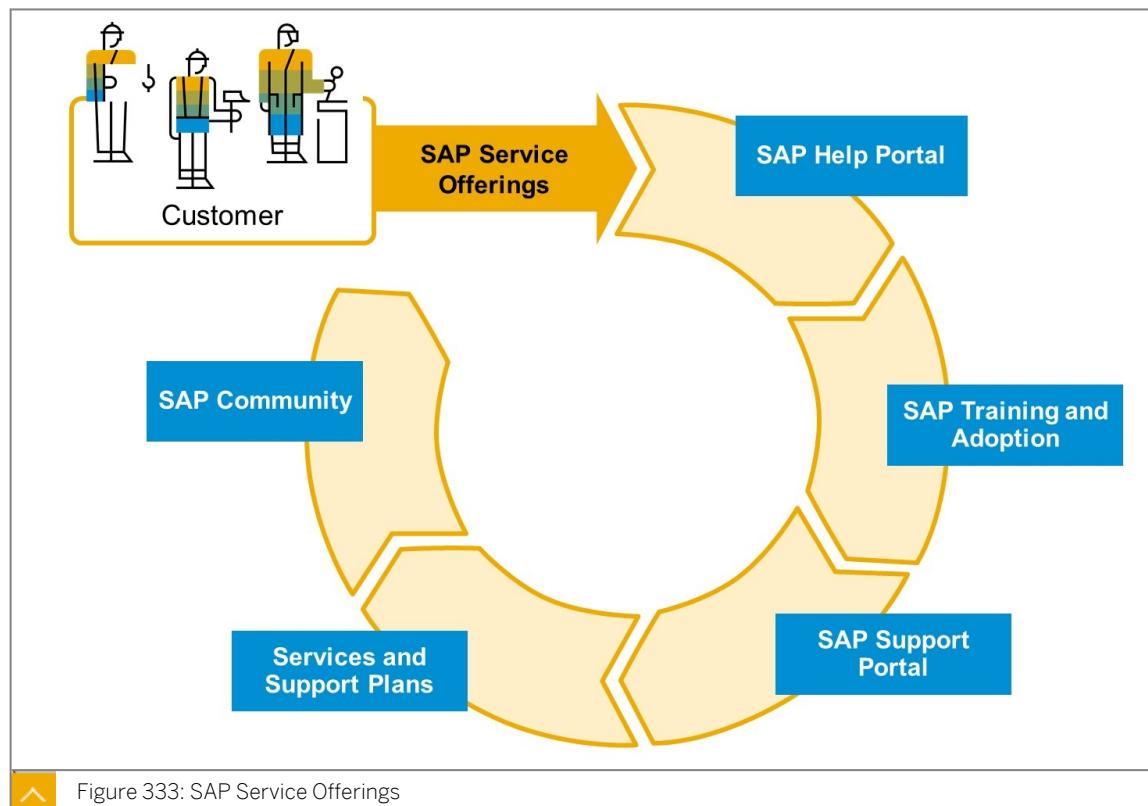


Figure 333: SAP Service Offerings

With SAP Services, IT and business strategies can be aligned, and software can get up and run quickly and be kept at peak operating levels.

SAP Service Offerings include the following:

- SAP Help Portal
  - Become an SAP solution expert by accessing documentation for our complete list of SAP products and using Learning Journey guides.
- SAP Training and Adoption

- Equip business users with the knowledge and skills to run and optimize your SAP solutions with training and enablement offerings from SAP.
- **SAP Support Portal**
  - Visit the SAP Support Portal and the SAP ONE Support Launchpad to search our knowledge base, find solutions to issues, and report incidents.
- **Services and Support Plans**
  - Get support for your transformation journey every step of the way by working with a trusted adviser that knows SAP software best.
- **SAP Community**
  - Learn how SAP Community, the social network for SAP professionals, changes the way thousands of SAP users work every day.



#### Animation: SAP Service Offerings

For more information on *SAP Service Offerings*, please view the animation in the lesson *Accessing SAP Services* in your online course.

## SAP Help Portal



Figure 335: SAP Help Portal



#### Animation: SAP Help Portal

For more information on *SAP Help Portal*, please view the animation in the lesson *Accessing SAP Services* in your online course.

Access SAP Help Portal to stay up to date on the latest information on installation, upgrades, and product availability.

- **SAP Documentation by Product**

- Browse the complete list of SAP products to jump to the documentation you need.

- **Learning Journeys**

- Learning Journeys are structured visual guides designed to help you navigate the path to become fully competent with high-priority SAP solutions. Take a look!

- **Get Support**

- **SAP Store**

- Discover, try, and buy SAP and partner solutions online.

- **SAP Community**

- Post questions and share your knowledge with other users and experts.

- **SAP Support**

- Find solutions and get answers from SAP.

- **SAP Developer Center**

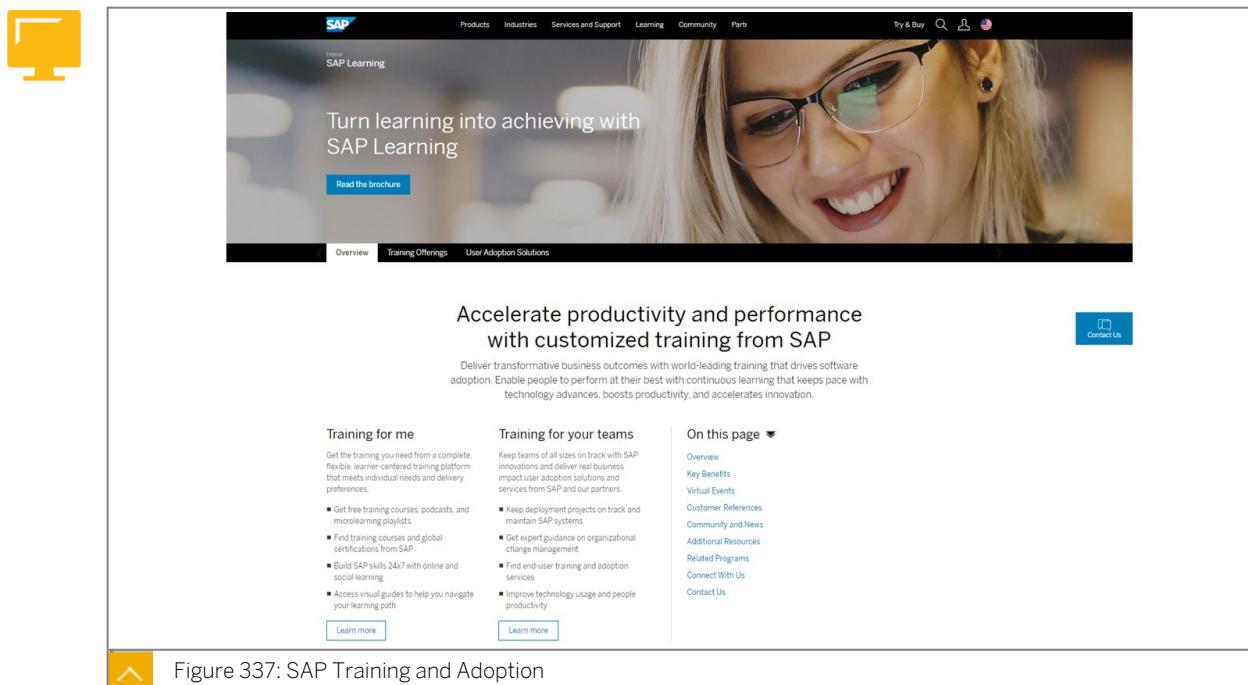
- A different view on the SAP Community, customized for developers.

- **SAP Training & Certification**

- Research all training and certification programs at SAP.

The SAP Help Portal is offered free of charge. Visit SAP Help Portal: <https://help.sap.com>.

### SAP Training and Adoption



The screenshot shows the SAP Training and Adoption homepage. At the top, there's a navigation bar with links for Products, Industries, Services and Support, Learning, Community, Parts, Try & Buy, a search icon, and a user profile icon. Below the navigation is a large banner featuring a woman wearing glasses and smiling, with the text "Turn learning into achieving with SAP Learning" and a "Read the brochure" button. The main content area has a dark background with white text. It features sections for "Training for me" and "Training for your teams", both with lists of benefits and "Learn more" buttons. To the right, there's a sidebar with "On this page" navigation and a "Contact Us" button. At the bottom left, there's a yellow navigation icon with arrows pointing up, down, left, and right.

Figure 337: SAP Training and Adoption

SAP® Software is designed to deliver transformative business outcomes. To truly realize this value, your employees need to be equipped with the right knowledge and skill sets. Even the best technology can under-perform when people aren't properly enabled to use it. This is why training and enablement are so critical.

Find customized training for your business needs.

- **Learn about SAP training offerings**

- Get comprehensive, up-to-date training and enablement across the SAP software portfolio – in a variety of formats – to learn about and adopt innovative technology.

- **Deploy, adopt, and maintain SAP solutions**

- Tap into our continuous learning framework for implementing, adopting, and maintaining SAP technology.

Visit SAP Training and Adoption : <https://www.sap.com/training>.

### SAP Training and Adoption Offerings

Find training and education offerings from SAP Training and Adoption.

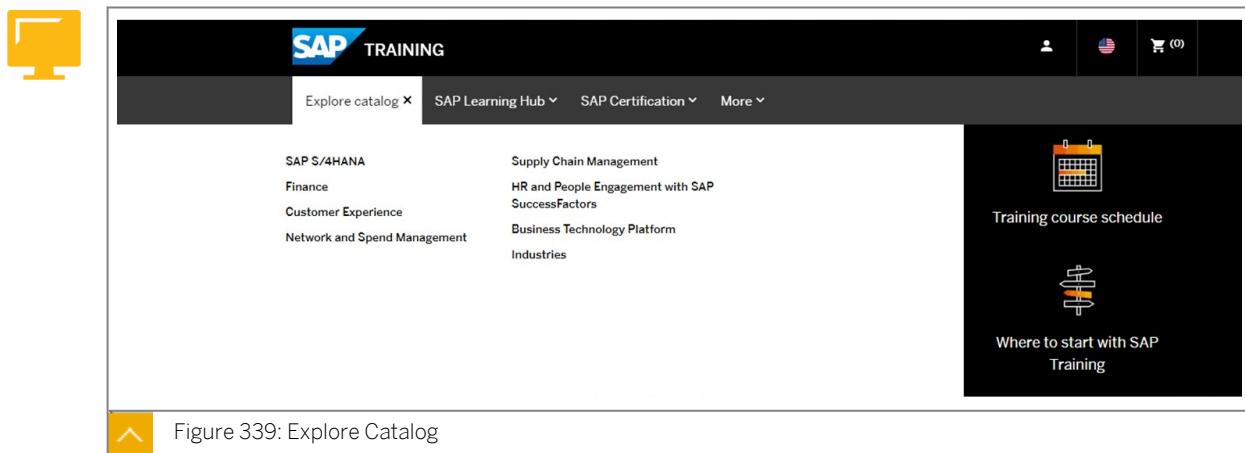
Visit SAP Training Shop homepage: <https://training.sap.com/>.

The screenshot shows the SAP Training Shop homepage. At the top, there's a navigation bar with links for 'Explore catalog', 'SAP Learning Hub', 'SAP Certification', and 'More'. A search bar is also present. Below the navigation, a large banner features a woman sitting on a couch looking at her phone, with the text 'SAP Training and Adoption' and a subtext about viewing course schedules and digital learning options. The main content area is titled 'Learn how you want' and describes three learning paths: 'Explore our catalog' (instructor-led training), 'Upskill with digital learning' (SAP Learning Hub), and 'Get certified' (SAP Global Certification). Each path has a small icon and a brief description.

Figure 338: SAP Training Shop Homepage

View the latest information about the SAP Training and Adoption portfolio, including upcoming course schedules, digital learning options, SAP Global Certification and more.

### SAP Training Catalog



- **Instructor led training options**

- **SAP Learning Class, in-person option**

Deepen your knowledge of SAP solutions with scheduled live-instructor-led classes guided by experienced trainers. SAP Learning Class, in-person option training courses are offered in our training centers and can be single topic solution area training that spans from 1 to 5 days or Academy (training bundles) training that enable students to achieve expertise in one SAP solution area or prepare for a certification exam over 20 days.

We offer classroom training in more than 50 countries.

- **SAP Learning Class, virtual option**

Our virtual trainings offer you the same learning experience as in our traditional classroom trainings in the training center. With the only exception that you attend the training from home or work. With our virtual courses we offer the same instructors, training systems, course materials, personal support, and face-to-face instructor engagement as a traditional classroom.

- **SAP Learning Class, hands-on option**

The hands-on training is available as SAP Learning Class, in-person option but also as virtual training SAP Learning Class, virtual option. Our certified trainers will guide you through the SAP training systems, the detailed exercises and will support you and answer your questions. The exercise share is approx. 90%. This practice-oriented training does not teach theoretical knowledge. This must be acquired prior to the SAP Learning Class, hands-on option session.

- **SAP E-Academy (single course access)**

- Our highly interactive Web-based courses enable you to take and deliver the timely, focused training your organization demands. E-learning students can access training courses anytime, anywhere and repeat learning units as many times and as often as needed.

- **Customer-specific training**

- With customer-specific training, you receive the same comprehensive live training from SAP experts but for your company. This training can be delivered at an SAP facility or service office, in a virtual live classroom, or on-site at your company's office or training facility.

Take advantage of free training from **openSAP**, our online learning platform. **openSAP** provides you with a variety of free learning opportunities through Massive Open Online Courses (MOOCs), podcasts and microlearning playlists to learn about SAP's latest innovations.

- **Enterprise MOOCs**

- openSAP Enterprise MOOCs leverage tried and trusted classroom concepts, including gamification, and discussion forums to interact with peers and experts, in an online delivery format.

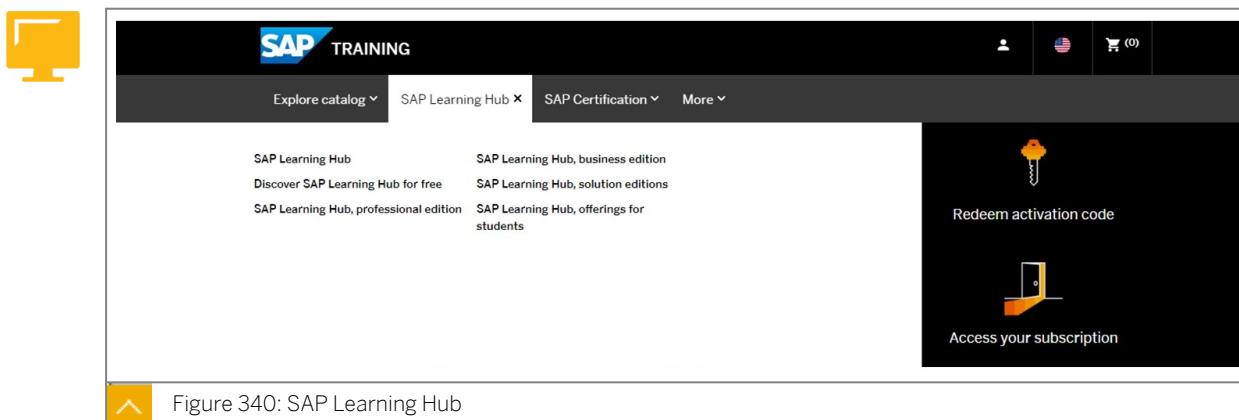
- **Podcasts**

- To complement openSAP MOOCs, we now offer podcasts to give you maximum flexibility to learn at your convenience. Subscribe and to stay up-to-date on relevant topics.

- **Microlearning**

- With microlearning on openSAP, you can learn with self-contained, bite-sized content to get a flavor of a topic or simply to complement your existing knowledge.

### SAP Learning Hub



The Learning Platform for Digital Business from SAP. Learn SAP how and when you want – with SAP Learning Hub.

SAP Learning Hub provides 24/7 access to online learning content, interactive SAP Learning Rooms, and live SAP training systems (optional) in a public or private cloud environment. Individuals, businesses, and universities can choose from thousands of training titles – including e-learning courses, SAP transaction simulations, handbooks, and more.

- **Learning Journeys**

- Visual, interactive guides detailing the recommended route to gain full competence, or expand your skills, for specific roles and SAP solutions. In mapping out a complete pathway, Learning Journeys also indicate digital elements of a blended learning strategy.

- **E-Learning Courses**

- Access self paced online courses covering a variety of popular SAP solution topics. Each includes highly effective learning components such as recorded expert instruction

modules and real-world simulations. Learn entirely online, at your own pace, and on your own schedule.

- **SAP Live Access**

- On-demand, hands-on access to live, fully configured versions of SAP software applications for practicing on your own. Work through exercises and refine your skills in a secure and private real-world environment, separate from your company's production instance of the application. SAP Live Access is an add-on purchase option exclusively for SAP Learning Hub subscribers.

- **SAP Learning Rooms**

- Social learning forums for exchanging ideas, skills, and tips with peers, and getting advice and guidance from SAP solution experts through live sessions and Q&A. SAP Learning Rooms also include video tutorials, best-practice documentation, and study materials for certification exams for SAP software.

- **E-Books**

- Online e-books for introductory to advanced courses. Compatible with all desktop and mobile devices, our e-books feature completion tracking, study time logging, bookmarking, and many other capabilities to ease and enhance self-learning.

Visit SAP Learning Hub: <https://training.sap.com/shop/learninghub>.

### Continuous Learning Framework

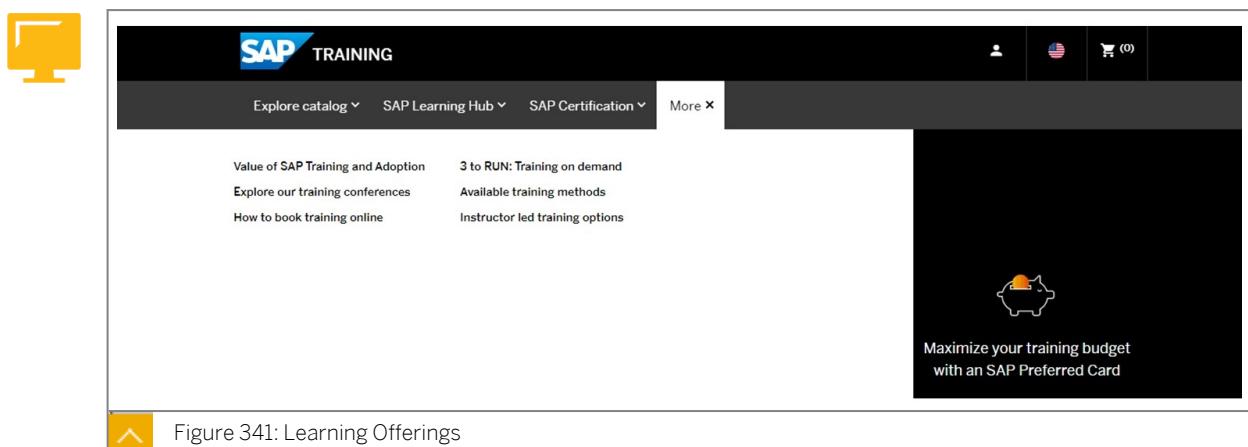


Figure 341: Learning Offerings

Develop a successful training strategy, ensure full user enablement, and follow up with advanced instruction, sustained guidance, and ongoing support.

- **Discover the continuous learning framework:**

- Get guidance on implementations, as well as training new users and expanding skill sets for existing applications, with our five-step framework.

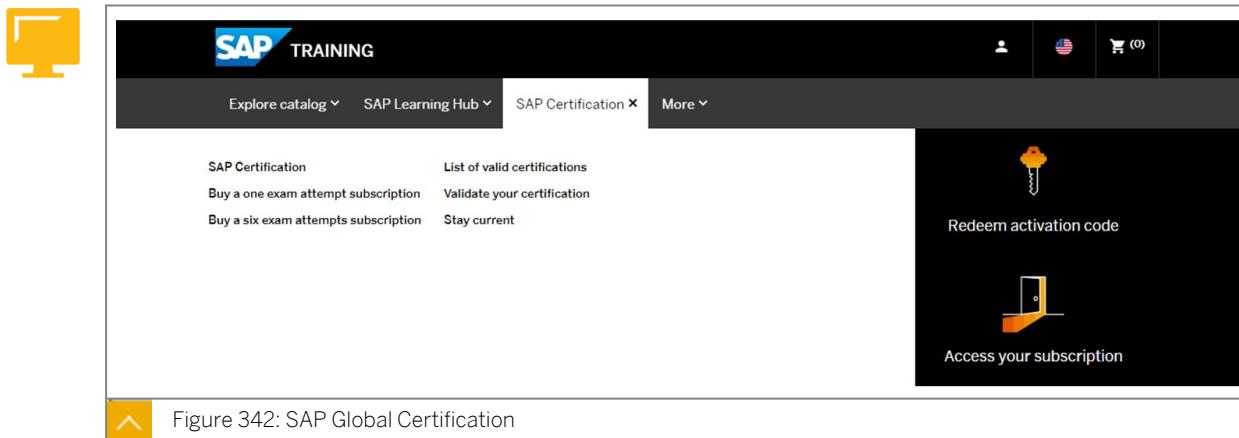
- **Manage change with education consulting services:**

Reach software training goals faster with help from SAP experts who assess your educational needs, create a strategic training plan, and provide direct assistance.

- Organizational Change Management:

- Achieve your business goals faster with IT change management services from SAP. Coordinate and integrate key leadership, organizational, technological, and cultural changes. Plus, better understand the psychological impact of change, so you can anticipate surprises and transition smoothly.
- Training Needs Analysis:
  - Assess your educational requirements – from training and support to change management to performance improvement – with needs analysis from SAP. Choose the learning options that are best for your organization. And get a detailed study of your organizational goals, to align your educational plan with your overall business strategy.
- End User Services:
  - Our services help organizations analyze user skills and competencies and provide plans and materials to increase user productivity.
- Deployment Services for SAP Enable Now:
  - SAP Enable Now enables organizations to deliver the knowledge your employees need to increase adoption and build proficiency in software programs. Ensure the successful implementation and sustainable use of SAP Enable Now – now and in the future.
- Explore SAP Learning Hub:
  - Gain instant, cloud-based access to a wide variety of SAP learning content and online learning rooms, with a range of options to fit your business needs.

## SAP Global Certification



Assure your Intelligent Enterprise runs at its best with certified SAP experts. The SAP Global Certification program is designed for the digital world.

To help you drive the most value from certification opportunities, SAP offers multi-tiered certification paths for specific subjects.

### • Associate certification

- This certification covers the fundamental knowledge requirements for an SAP consultant, ensuring the successful acquisition of broad SAP solution knowledge and skills.

- **Delta certification**

- For some parts of the portfolio, SAP offers Delta exams to ensure that SAP certified Consultants are up-to-date with their skills and knowledge. You are eligible to take a Delta exam when you pass the prerequisite Associate exam for a specific solution.

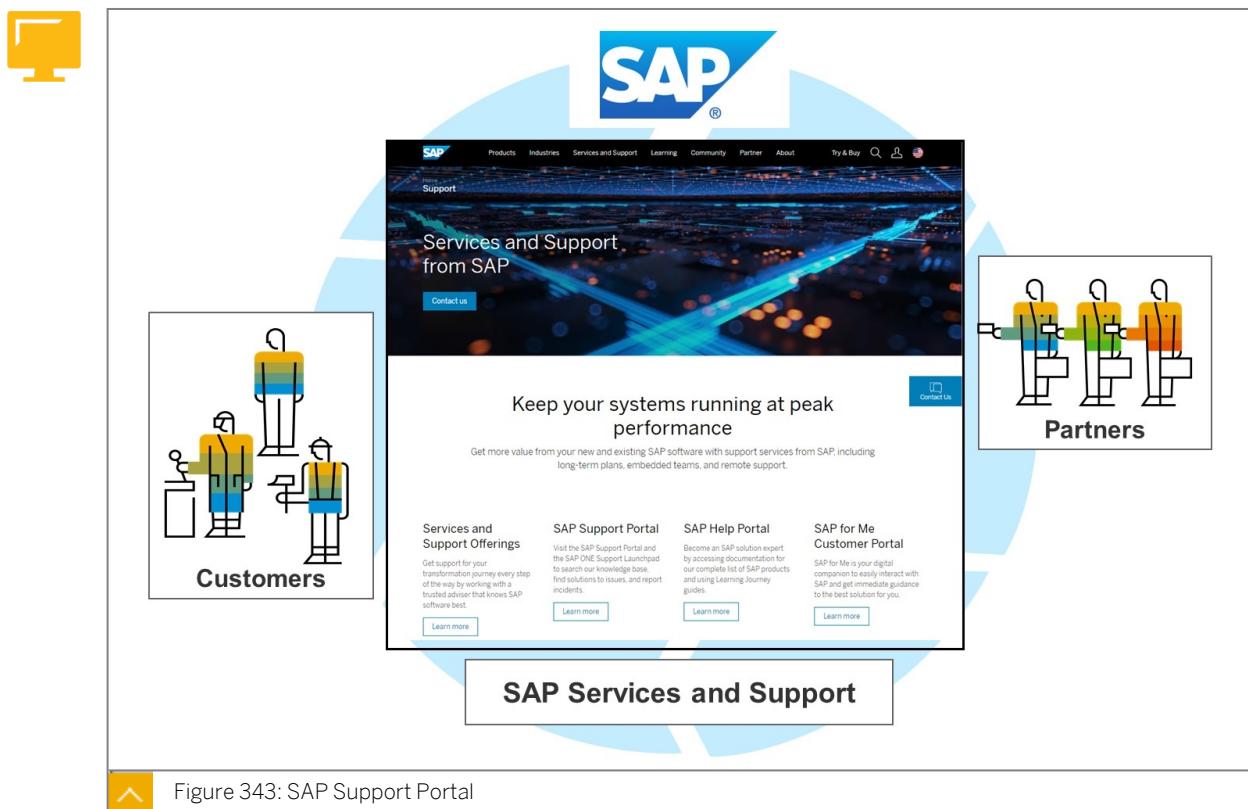
- **Specialist certification**

- This certification is in addition to an Associate certification and focuses on a specific role or integration component.

- **Professional certification**

- This advanced certification requires proven project experience, business process knowledge, and a more detailed understanding of SAP solutions.

## SAP Support Portal



Use the SAP Support Portal to access technical support resources and product support experts quickly and easily.

- Find solutions in our extensive knowledge base or with intelligent tools like Guided Answers and Cloud Availability Center.
- For fast issue resolution and prevention, get help directly from SAP support experts with our Expert Chat and Schedule an Expert services.
- Customize your personal dashboard to quickly access your common tasks – downloading software, checking incidents, managing users, and more.

Visit SAP Support Portal: <https://sap.com/support>.

## Services and Support Plans

Simplify digital transformation to achieve exceptional outcomes quickly and efficiently.

- **Premium Engagements**

- Support your implementation with packaged services and support to co-innovate with SAP and create ground-breaking business models.

- **Support and Success Plans**

- Move on-premise solutions to the cloud with guided support plans – helping your business adapt and ensure high-performing solutions.

- **Innovation and Advisory Services**

- Get the guidance you need to take the best path toward digital transformation, Cloud adoption, and sustainable innovation.

- **Implementation Services**

- Accelerate the implementation, migration, and adoption of SAP solutions with a combination of unique expertise and best practices.

- **Cloud Services**

- Create value for your organization and customers with the promise of speed, innovation, flexibility, elasticity, and simplicity.

Visit Services and Support Plans from SAP: <https://www.sap.com/services.html>.

## SAP Community

Learn how SAP Community, the social network for SAP professionals, changes the way thousands of SAP users work every day.

- Visit SAP Community: <https://community.sap.com/>
- Questions and Answers
- Blogs



## LESSON SUMMARY

You should now be able to:

- Access SAP Services

# Learning Assessment

1. The SAP Support Portal allows customers and partners to order SAP services via the Internet.

*Determine whether this statement is true or false.*

True

False

2. SAP Training and Adoption offers only classroom trainings.

*Determine whether this statement is true or false.*

True

False