Service management (SM)

This case study explains an integrated service management process in detail and thus promotes understanding of the individual process steps and the underlying SAP functionality.

Product

S/4HANA 2022
Global Bike

Fiori 3.0

Level

Undergraduate
Graduates
Beginner

Focus

Service Management

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MOTIVATION

The exercises and the case study describe a service management process, where a non-materialized product (that is, a service) is sold and billed. The service example is the rental/sharing of city bikes.

The exercises are a preparation for the latter case study: The required master data is displayed. A master record - a customer - is created.

Part 2 (Bike Rental case study) go through a “Bike Rental” process including the creation of a CS order, confirmation of activities, resource-related billing of services, and a payment process.

Part 3 (“Bike Sharing” case study) goes through the same process, but with a fully automated app procedure.

PREREQUISITES

Before you use this case study, you should be familiar with how to navigate in the SAP system.

Before working though the case study, it is necessary to finish the exercises (at least the creation of the customer master record).

NOTES

This case study uses the Global Bike (GB) data set, which has exclusively been created for SAP UA global curricula.

SAP University Alliances

General Process Overview

Time 200 min.

Learning Objective Understanding and executing a guided bike rental and self-organized bike sharing process.

Scenario short description Using the example of "Bike Rental" / "Bike Sharing", a service process is conducted. At the beginning, necessary (and partly preparatory) master data is checked and maintained in **part 1**. In **part 2**, the SAP core process of a service management order processing ("Bike Rental") is carried out first. This process represents the "guided" bike rental, where customers visit a rental point, rent prepared bikes there and return them. **Part 3** of the case study describes a self-service, web-based "Bike Sharing". This automated process uses the same documents as the "Bike Rental" process.

Motivation of the Scenario The rental of bicycles (recently also e-bikes and electric scooters) has experienced a massive boom in recent years worldwide and especially in urban areas. The background for this are enormous problems caused by the rapid growth of metropolises, the organization of public transport and the use of own cars in cities (air pollution, traffic collapse, parking shortage). On the other hand, a change in mobility needs can also be seen, away from own vehicles, and more towards shared use solutions ("Rental" / "Sharing" - concepts). Nevertheless, the shared use of resources should be as flexible as the use of one's own vehicle: the vehicles should be available at any time, at any place, at a reasonable price and with a minimum of effort when renting (contract, payment). Ensuring this is the central problem of all mobility projects.

In the context of bicycle rental, a distinction is made between two extremes (the real processes are often hybrids):

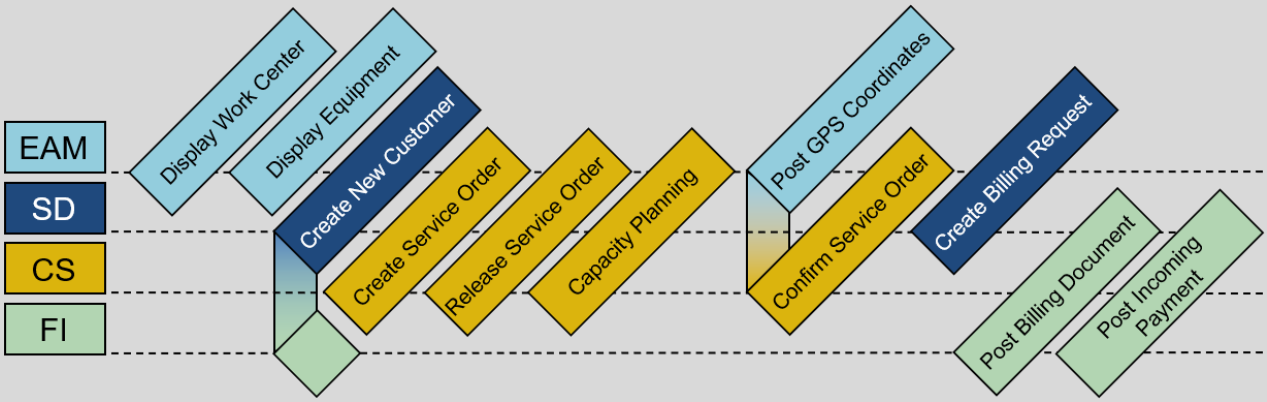
Guided "Bike Rental"-Process After the customer has ordered the bike (usually via web application), it is reserved by the rental company for the ordered period, customized in terms of equipment and size, and handed over to the customer at a place of issue (workshop, store). In the case of an ad hoc rental, the order and issue coincide. When the bike is handed over, a security deposit is made or identification data (ID card, credit card number) is stored. On return, the bicycle is checked for possible damage. The customer will be invoiced for the rental (according to the rental period, possibly with special prices, discounts, etc.). The Customer pays (means of payment: cash, EC card reader, credit card, PayPal, etc.). The subject of the guided rental is usually high quality and specialized types of bicycles according to the customer's wishes. Bookings (reservation, handover, return, invoice, receipt of payment) are made by employees of the rental company.

Self-organized "Bike Sharing"-Process Standardized rental bikes are available at numerous locations (train station, central squares, bike stores or anywhere in the city). The bikes are unlocked (electronic lock) by the customer via smartphone (app or web browser) and thereby borrowed (time runs from unlocking). They are equipped with a GPS sensor, and thus networked and can be located anywhere. The end of the rental is reached by locking the bike again (again at certain locations or even everywhere). Invoicing and payment is done automatically by email, direct debit, Paypal, credit card. The necessary data (bank details, credit card number, etc.) have already been provided by the customer during registration. Subsequent claims (e.g. in case of detected damage, vandalism, theft) can be charged to the customer according to the terms and conditions. The subject of the self-organized rental are robust standard bicycles, which can have a high value because of their additional equipment (electronic bicycle lock, GPS sensor, Internet networking). Problems

are mainly deviations during the return (damage, vandalism, theft) and the respective legal responsibility. The additional equipment needs supply with electric current - the batteries necessary for this must be charged regularly. Bike sharing projects are often promoted on a communal, regional or (inter)national level. Currently, a hype can be observed.

As mentioned, there are hybrid forms between the two extremes (e.g., lending and return electronically, but within the facility of a bike store). However, these will not be considered in the course of this case study.

The following graphic shows the entire "Bike Rental" process, starting with the preparation of the master data:



The "Bike-Sharing" process also runs through these steps, but automates them, with the difference that most of the bookings are made by the customer using apps.

Table of Contents

Part I: Preparation of Case Study – Master Data

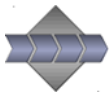
Learning Objective Understand the different types of master data required to perform a service process.

Time 40 min.

Description Before the service processing (bicycle rental) is carried out, the necessary master data (work center and equipment master record) is checked. These already exist in the system and are to be displayed below. A customer master record will be created as well. This customer rents a bicycle in the further course of the case study.

Employees involved

Lucy Rodriguez (Sales Person)
Joe Sanders (Work Scheduler)
Evelyn Monroe (Shop Floor Worker)



Both service processes that are performed in Part I ("Bike Rental") and Part II ("Bike Sharing") use multiple master records:

1. The **work center** which models a complete set of rental bikes,
2. The **equipment master record**, which models a single bike, with measurement points and its assigment to a material-/ serial number,
3. The **customer master record**, which acts as sold-to party and bill-to party in the service process
4. **Other master records**, such as materials, serial numbers, cost centers, activity types, characteristics, and measurement points.

Scenario Before Global Bike can rent out bicycles, it must be ensured that these are also available in the system. A certain type of rental bike is to be mapped as a work center. Your work scheduler **Joe Sanders** therefore checks whether this work center has been created accordingly. Your shop floor worker **Evelyn Monroe** also checks whether the required rental bicycles are mapped as equipment in the system. In addition, there is already a customer who has called to express interest in renting a bike. Your sales person **Lucy Rodriguez** creates this customer as a business partner so that this customer is registered in the system and has the possibility to rent a bike in the following part of the case study.

Table of Contents – Part I: Preparation of Case Study – Master Data

Step 1: Display Work Center

Task Display the work center that is used in CS order processing. **Time** 10 min.

Description Use the SAP Fiori Launchpad to display a work center.

Name (Role) Joe Sanders (Work Scheduler)

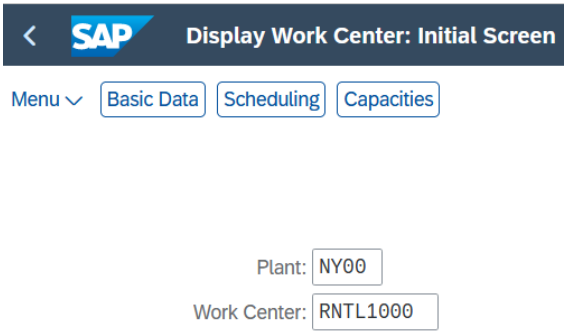
	Work centers are master data in Production (PP), Plant Maintenance (PM), Service Management (CS), Quality Management (QM), and Project Management (PS). Work centers generally describe a workshop, a collection of machines or a group of employees. In the present case, we represent all bicycles of a given type using a work center, that means it contains a number (N) of individual capacities (each individual capacity represents one bicycle). Work centers are important for scheduling, capacity utilization checks as well as for cost calculation of orders.

To view a work center, click the *Display Work Center* app in the *Service Management* area in the *Work Scheduler* role.

SAP Fiori app

Enter **NY00** for the *plant* and **RNTL1000** for the *work center*.

NY00
RNTL1000

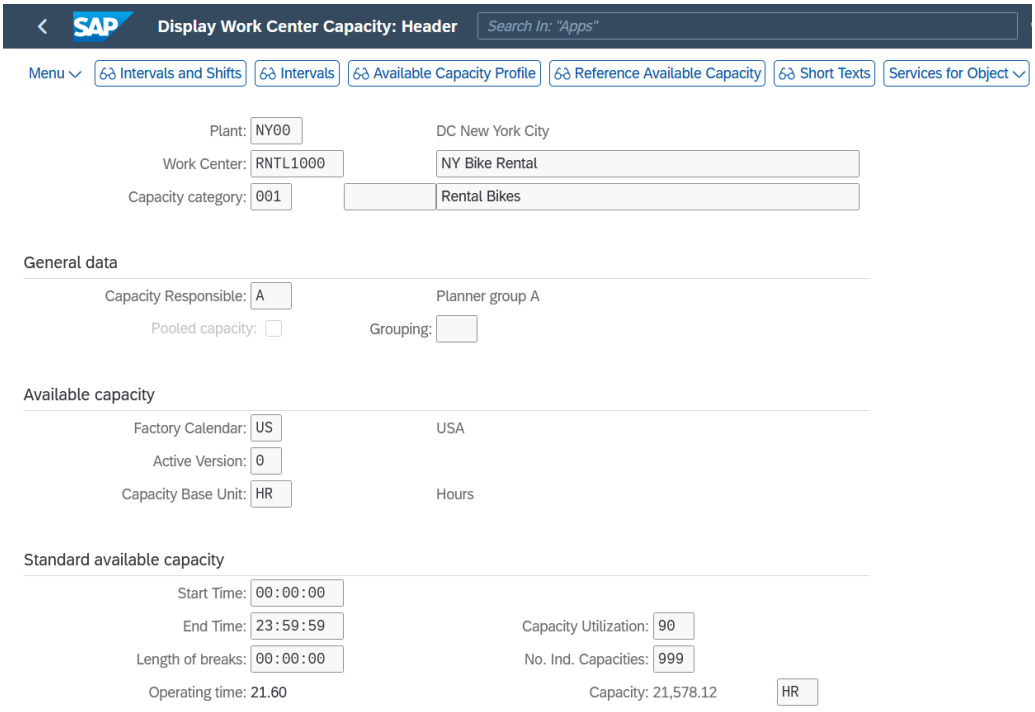


Then click Basic Data.

The **work center type** generally controls the properties of the work center and is maintained in Customizing. The work center type used here, 0006, defines the work center as a resource, as it is used for networks (PS) or also for Plant Maintenance (PM) / Service Management (SM) (in contrast to types 0001 / 0003, which we use in Production). Moreover, the task list usage controls in which task lists (PP, PS, PM, QM, SM, ...) the work center can be assigned to operations.

On the *Display Work Center: Basic Data* screen, switch to the *Capacities* tab page.

Double-click capacity category **001** to display the header data of the capacity category.

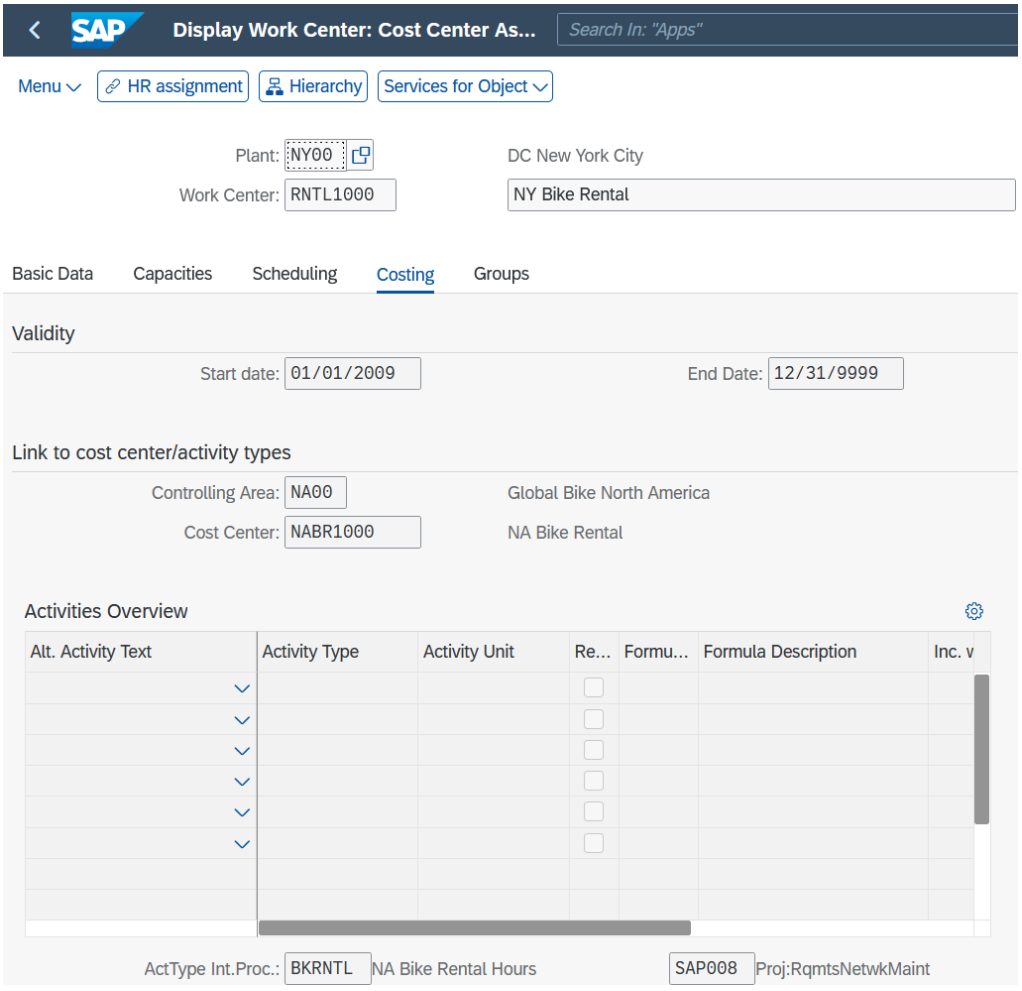


	Capacity category 001 (“machine”) shows 999 individual capacities (corresponding to a stock of 999 bicycles), which can be used 24 hours a day (the factory calendar shows all days of the week as “working days”). Since 10% of the bicycles have to be maintained on average, 90% of the bicycles remain available for rental (utilization rate).

Return to the capacity overview from the header data.

To do so, click  .

Back on the *Display Work Center: Capacity Overview* screen, navigate to the *Costing* tab page.



	The work center is linked to the cost center **NABR1000** (Bike Rental) and provides (as a default value for transactions) the activity type BKRNTL (“Bike Rental”). Based on the combination of cost center and activity type, a rate of 1 USD per hour is planned in cost center accounting. Formula **SAP008** calculates the number of rental hours from the work maintained in the activity (in contrast

	to production, there is only one default value per activity in PM/SM orders or networks - instead of six).

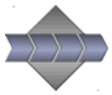
Return to the SAP Fiori launchpad by choosing  .

Step 2: Display Equipment

Task Display the equipment that is used in CS order processing. **Time** 10 min.

Description Use the SAP Fiori Launchpad to display an equipment.

Name (Role) Evelyn Monroe (Shop Floor Worker)



Equipment is part of the Plant Maintenance (PM) and Service Management (SM) master data as technical objects. You create assets or plant parts. Equipment can be assigned to notifications or orders and pass on data to these documents. In service processing, measurement data can be entered and updated for equipment, both for evaluating and planning maintenance tasks. Equipment can be linked to material serial numbers if there are several pieces of equipment of the same material (like 100 identical returnable bicycles here). In our case, we map each individual bike on loan through a piece of equipment. Later, we will send measurement documents to the devices to record the GPS position, mileage, and occupancy status for each bike on loan.

To view a piece of equipment, in the *Service Management* area, in the *Shop Floor Worker* role, click on the *Display Equipment app.*

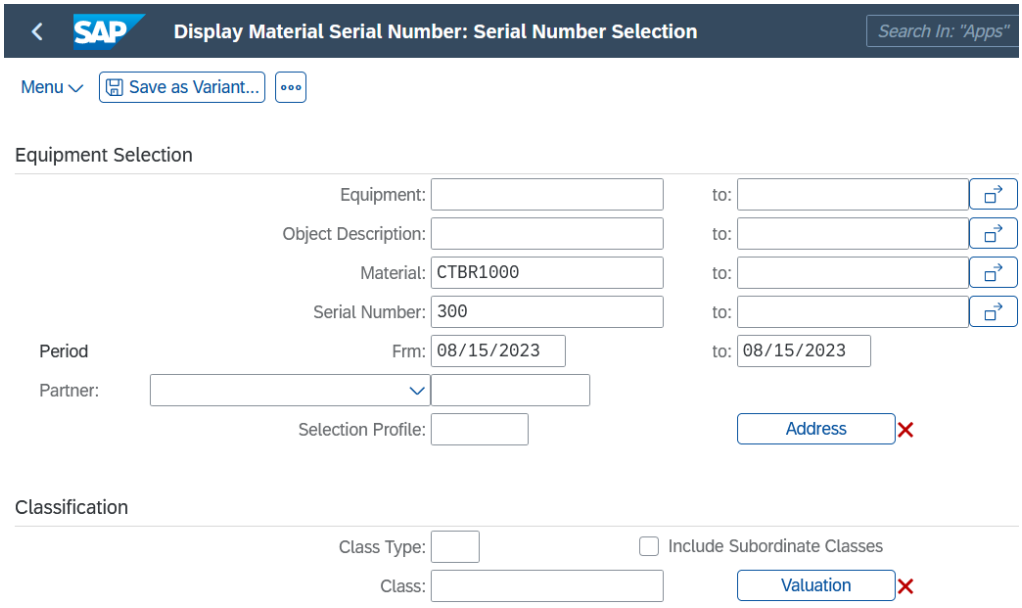
SAP Fiori app

On the *Display Equipment: Initial* Screen, use the in the *Equipment* field.

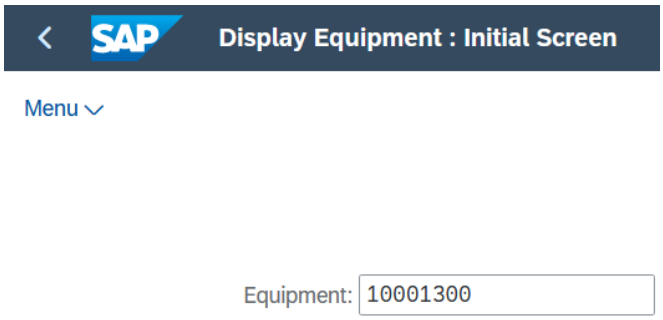
In the *Equipment number (1)* pop-up window, choose to switch to the navigation menu *Equipment by Serial number list.*

Enter **CTBR1000** in the *Material* field and **###** (your three-digit number) in the *Serial Number* field.

CTBR1000
###



Click **Execute** The system should find exactly one equipment number, which is automatically copied to the Equipment field.

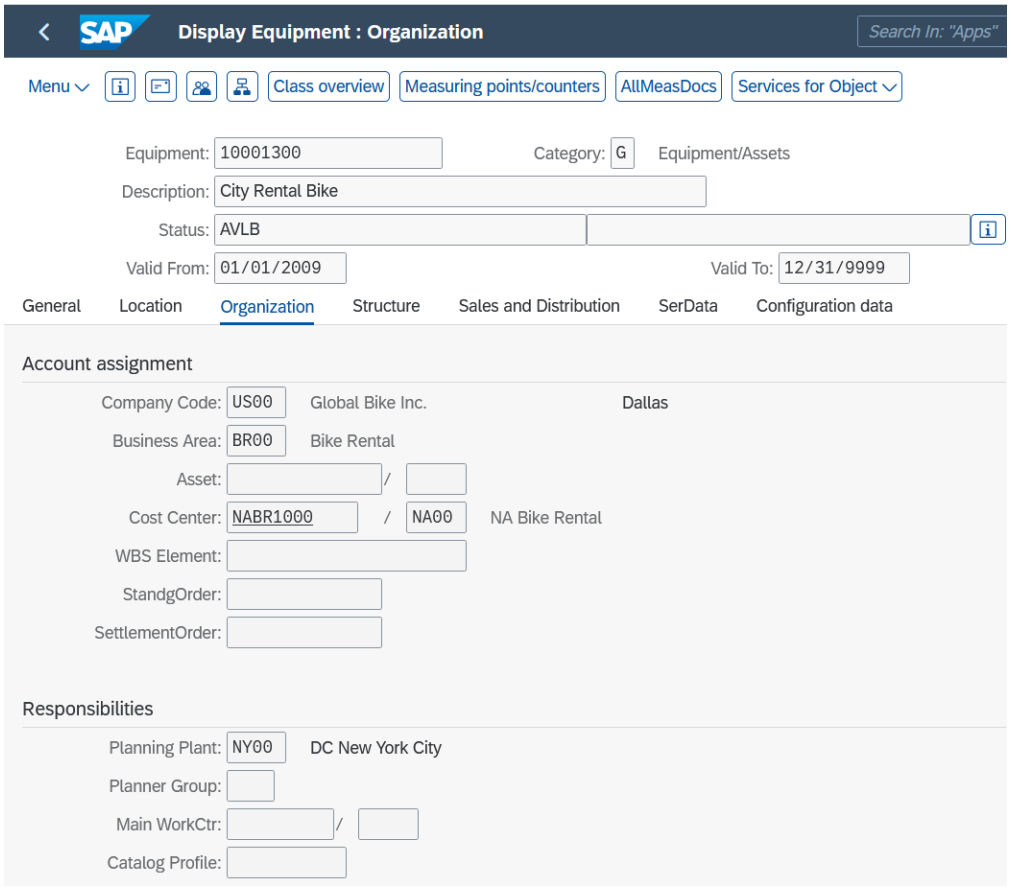


Choose **Enter** to display the data for your equipment.

Enter

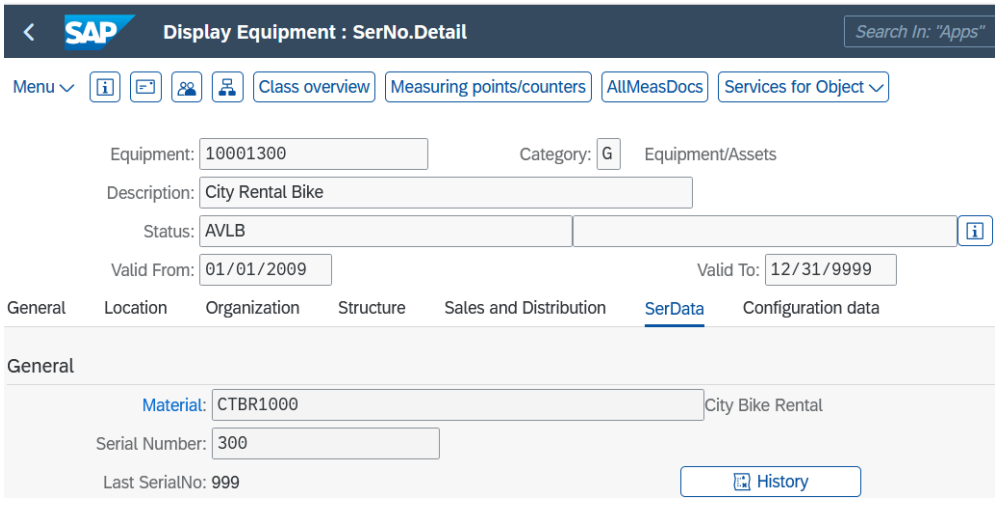
	The system displays manufacturer data such as the bike model, the manufacturer and the date of production. In our case the bike was manufactured by Global Bike in Dallas, the model is the touring bike DXTR3000.

Navigate to the *Organization* tab to display the organizational data of your equipment.



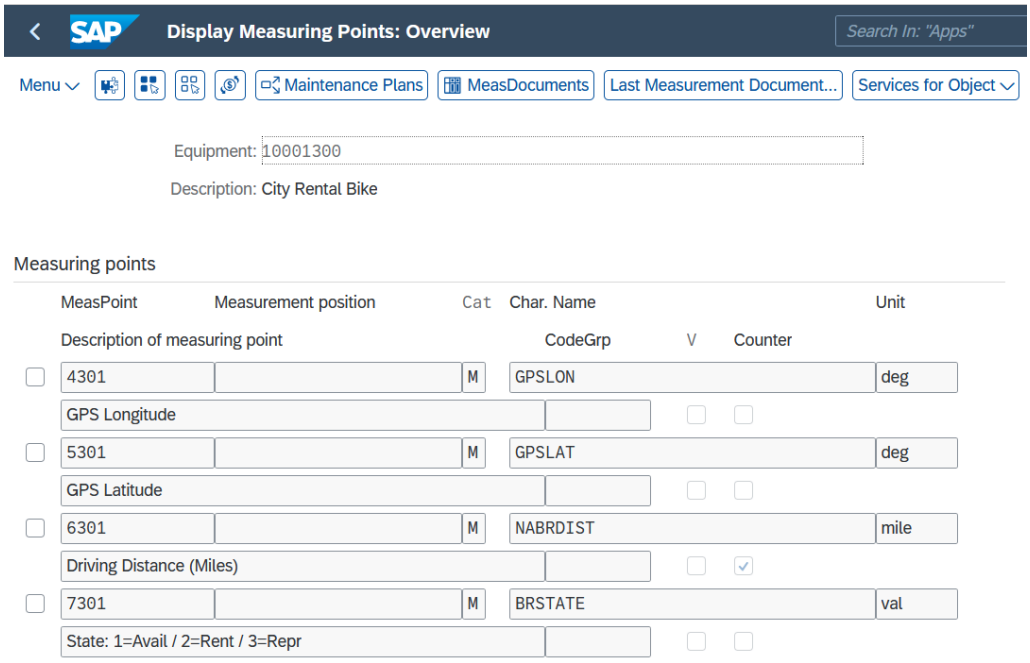
	Note the assignment of your equipment to company code US00, to business area BR00, and to cost center NABR1000 ("Bike Rental"). The maintenance planning plant (later important for equipment maintenance tasks) is the plant NY00.

Switch to the *SerData* tab page to display the assignment to the material and serial number.



As expected, you see here the material CTBR1000 and the serial number ### (because you only found your equipment through this assignment). Note that the material number is the same for all 1000 rental bicycles. However, the combination of material number and serial number is assigned uniquely and one-to-one to a equipment number.

Now click Measuring points/counters to view the measuring points assigned to your equipment.



Measurement points are numerical features for which measurement values can be recorded. We use measurement points to record the GPS location, the mileage and the "occupied" status of our bikes. The mileage status (**NABRDIST**) can be used, for example, to perform periodic maintenance. The GPS coordinates (latitude **GPSLAT**, longitude **GPSLON**) are used to track our rental bikes (geographic analysis). The "occupied" status **BRSTATE** works like the light of a taxicab: "red" means "occupied", "green" signals "available". In fully automated rental processes, all these measurement points are recorded by sensors in the rental bike itself.

Return to the SAP Fiori launchpad by choosing SAP.

Step 3: Create Business Partner (Customer)

Task Create a new business partner with the role “Customer”. **Time** 20 min

Description Use the SAP Fiori launchpad to create a new business partner.

Name (Role) Lucy Rodriguez (Sales Person)

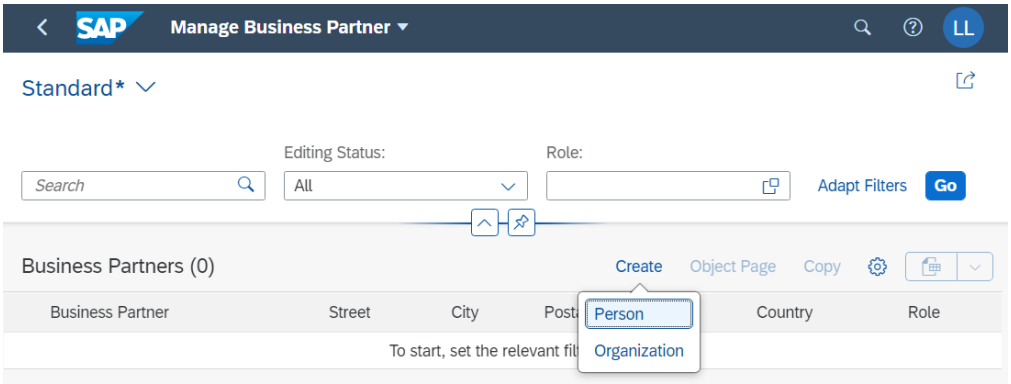
	In this case study, we create a new customer master record for an end customer. Customer master data typically includes at least three types of data: general data, sales data, and (debit-side) financial data. While the general data (such as name, address, telephone number, e-mail, and so on) is common for all organizational levels within the client, sales data is maintained specifically for the sales area and financial data specifically for the company code. The new customer master data is created in company code US00 (Global Bike US), sales organization UE00 (US East), distribution channel IN (Internet), and division BR (Bike Rental).

To create a business partner, click the *Manage Business Partner Master Data* app in the *Service Management* area in the *Sales Person* role.

SAP Fiori app

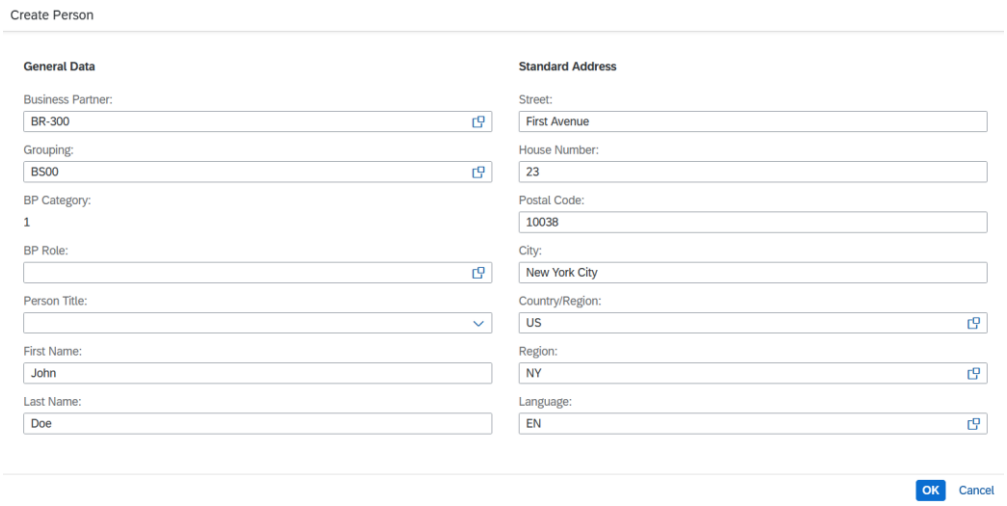
In the *Manage Business Partner* view, choose Create. A submenu opens. Click **on Person** here.

Create Person



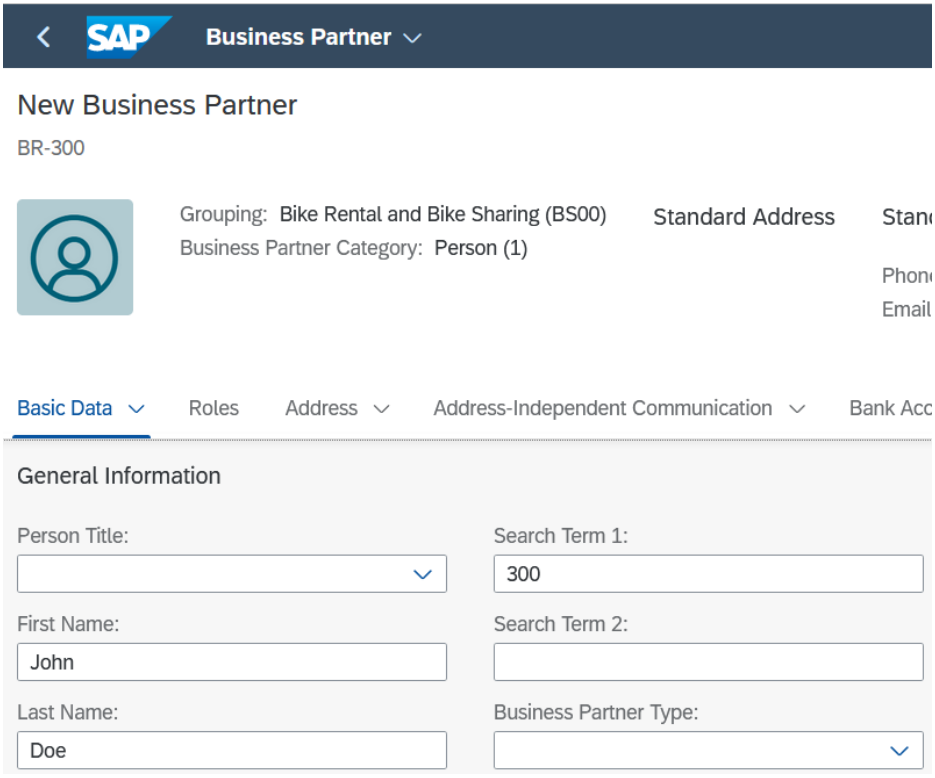
In *Create Person*, enter **BR-###** in the *Business Partner* field and choose **Bike Rental and Bike Sharing** as the *grouping*. In the *Postal Code* field, enter **10038**, **New York City** *as the city*, **US** as the *country*, **NY** as the *region*, and **EN** as the *language*. You can enter **any values** for *the form of address, first name, last name, street*, and *house number*. Confirm your entries with OK.

BR-###
Bike Rental & Sharing
10038
New York City
US, NY, EN
Any values

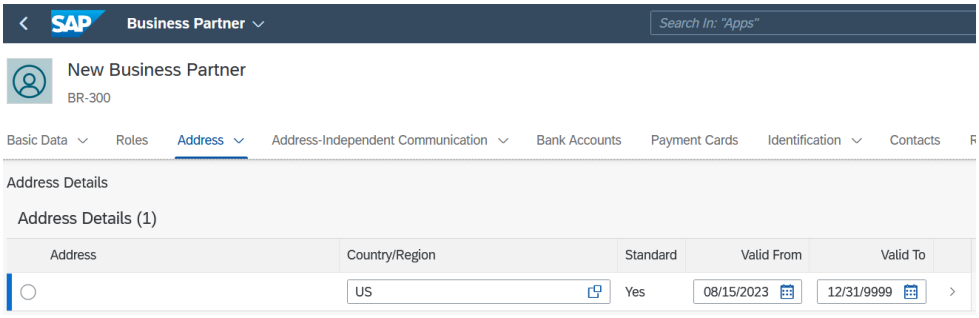


On the *General Information* tab page, enter your three-digit number ### as *search term 1*.

###



Choose the *Address → Address Details* tab. You see a row with the details of the country and the validity dates. Click on this line to maintain further details.



In the *Address* area, you can use the button Show More to display all fields. Search for the *Tax Jurisdiction* field and enter **NY0000000**. In addition, enter **EST** as the *time zone*.

NY0000000
EST

Now click on Apply and then on Create to save your business partner.

	The system displays a success message that the Master data was created.

Stay in the app.

Now add the Customer role to your business partner.

	The Customer role allows you to maintain company code-specific data for your business partner.

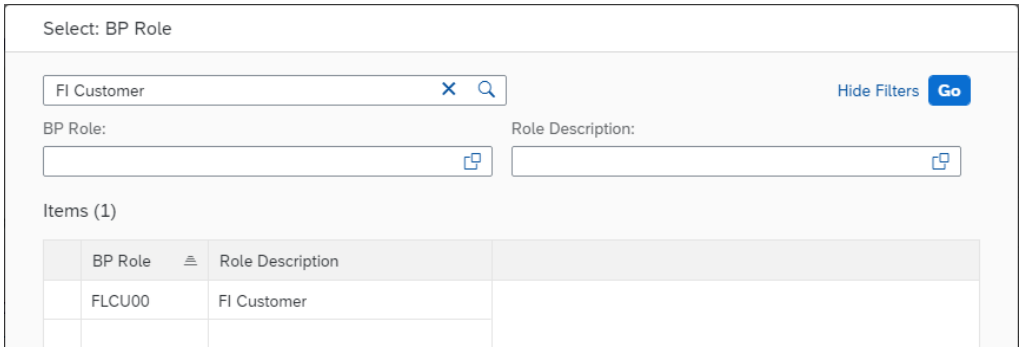
Click on Edit in the upper right corner to be able to make further adjustments to your already created business partner.

Navigate to the *Roles* tab and choose Create.

A new line appears in which you can maintain role data.

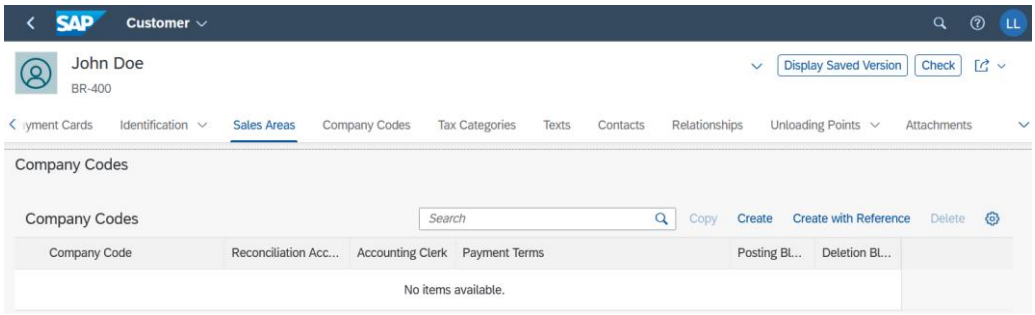
In the *Business Partner Role* field, click the value help icon. In the dialog box, search for **FI Customer** and then choose the entry **FLCU00 | FI Customer**.

FI Customer
FLCU00 | FI Customer



At the end of the line, click [>] to be able to maintain company code-specific data for the role of the customer.

A new overview is loaded. Choose the *Company Codes* tab page. Currently, no data record has been maintained for the company codes, choose the corresponding button [Create].



On the *General Data* tab page, enter **US00** in the *Company Code* field.

US00

Switch to the *Financial* tab in the area *Accounting* enter **1200000** as *Reconciliation Account* and **001** as the S*ort Key*. In the *Payment Data* area, choose *Payment Terms* **0001**.

1200000
001
0001

Click on [Apply] and then on [Apply].

Now add the Customer role to your business partner.

	The Customer role allows you to maintain sales area-specific data for your business partner.

Navigate back to the *Roles* tab and choose [Create].

A second line appears in which you can maintain role data.

In the *Business Partner Role* field, click the value help icon. In the pop-up, search for **Customer** and then choose the entry **FLCU01 | Customer**.

Customer
FLCU01 | Customer

At the end of the newly added row, click [>].

A new overview is loaded. Choose the *Sales Areas* tab page. Currently, no data record exists. Choose the corresponding button [Create].

On the *General Data* tab page, enter **UE00** as the *sales organization*, **IN** as the *distribution channel*, and **BR** as the *division*.

UE00
IN
BR

	It is now possible to maintain sales data specifically for the sales territory “New York / Internet / Bike Rental”.

Then choose the *Sales Area Details* tab. In the *Sales Orders* area, enter **US0003** as *sales district* and **USD** as the *currency*.

US0003
USD

In the *Billing* area, enter **EXW** as the *Incoterms*, **New York City** as *the Incoterms Location 1*, and **0001** as the *Payment Terms*.

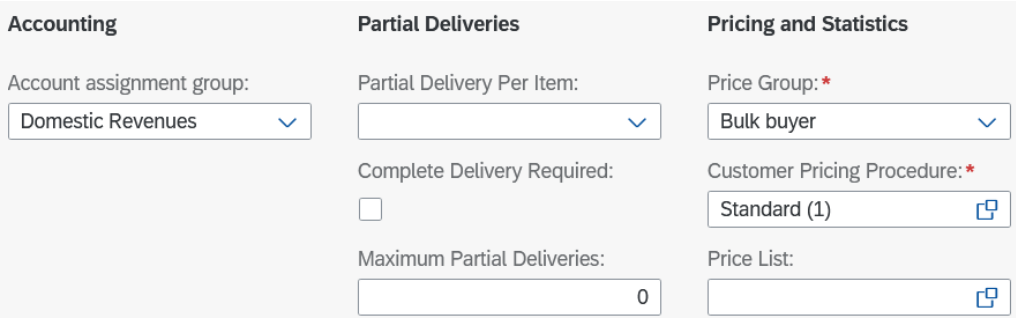
EXW
New York City
0001

In the *Accounting* section, choose **Domestic Revenues** from the dropdown menu of the *account assignment group*.

Revenue Domestic

Scroll further down to the *Pricing and Statistics* area to maintain the *price group* with **bulk buyer** and the *customer pricing procedure* with **1**.

Bulk buyer
1



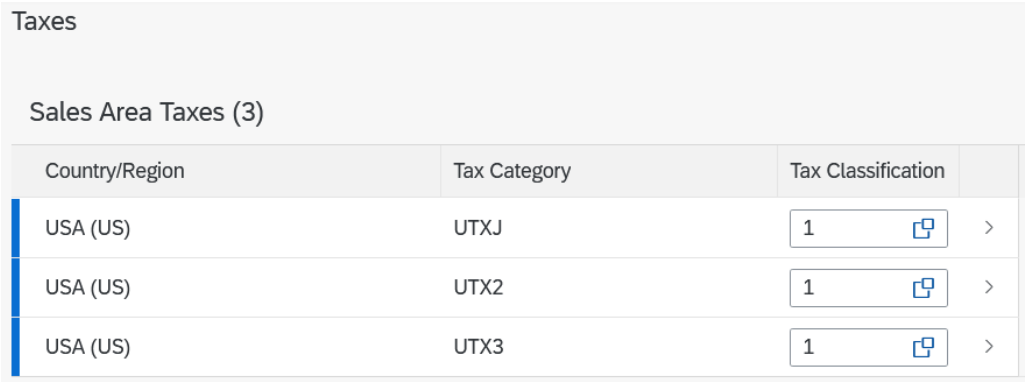
Press **Enter**.

Enter

Now navigate to the *Taxes* tab page and enter **1** (full tax) for all three *tax classifications*.

1

	By entering tax classification 1 in all three tax categories, the customer is subject to city, state, and state taxes.

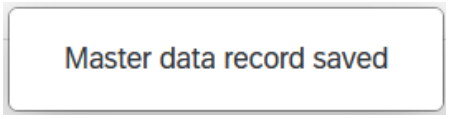


Navigate to the *Partner Functions* tab page and enter the *partner number* **BR-###** *for all partner* functions.

BR-###

Click **Apply** and then on **Apply**.

Now save your business partner by clicking **Save**.

	The system displays a success message that the Master data was saved. 

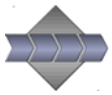
Exit the maintenance of your business partner and return to the SAP Fiori launchpad by clicking on SAP.

Part II: Case Study – "Bike Rental"

Learning Objective Understanding and conducting a bike rental process. **Time** 120 min.

Description In the "Bike Rental" case study, a bicycle rental process is carried out in which customers borrow a bike in a bicycle store and return it there.

Involved Employees
Lucy Rodriguez (Sales Person)
Joe Sanders (Work Scheduler)
Evelyn Monroe (Shop Floor Worker)
Bill Freeman (Accounting Clerk)



Bike rental is a typical service process that does not sell a materialized product but a service to the customer. Therefore, there is no product price and no delivery as a basis for delivery-related billing. Instead of a sales order, a service order is used to control the process. Such an order can carry customer data, costs, and revenues, and in addition it also contains services and can therefore be assigned to equipment (and thus to the specific bike being rented).

The "Bike Rental" case study describes a so-called "guided" bike rental, which means that the employees of the bike rental company make the postings in the S/4HANA system. The document postings accompany, control, and document the business process. These consist of service order, release, confirmation, billing request, billing document, and incoming payment from the customer. As soon as the customer visits the bike shop and rents a bike, the CS order is created. The issue of the rental bike is mapped by the release of the order (which is often done together with the creation). The return of the bike is recorded by order confirmation – the bike is checked for damage and the rental duration is posted as proof of performance for the order (posting of actual costs). Invoicing starts with a resource-related billing request: the effort is collected, valuated with prices, and posted as a billing request (a classic SD document). This is the basis of billing (corresponding to a delivery in the materialized sales process). The billing of the request posts "Receivables" - from an accounting point of view. The incoming payment is posted when the customer pays the invoice.

To process a complete bicycle rental (service) process, you will take on various roles within the Global Bike model company, such as a sales employee, a salesperson, a maintenance employee, an accounting clerk. Overall, you will work in the Sales and Distribution (SD), Enterprise Asset Management (EAM), Service Management (CS), Cost Accounting (CO), and Financial Accounting (FI) departments. You will work in these departments in a new Global Bike US subsidiary based in New York City.

Scenario A new customer called the Global Bike Shop and would like to borrow a bicycle. Your sales person **Lucy Rodriguez** has already registered this customer in the system by creating a business partner. Lucy creates a service order in the system, which reserves the corresponding bike for the customer. When the customer visits the store to pick up the bike, Lucy releases the service order. Lucy instructs her colleague, shop floor worker **Evelyn Monroe**, to hand over the bike to the customer. The service order is also printed and sent to the customer as an order confirmation. When the customer returns the bike several days later, Evelyn accepts the bike. She checks it for damage

and posts the actual rental period, the distance traveled and the GPS coordinates of the return location in the system (the service order is confirmed at this point). Lucy receives a notification that the service order has been confirmed and then she creates a resource-related billing request (debit memo request), in which the duration of the bike rental is included in order to bill the customer. Based on the billing request, the customer is billed by the accounting clerk, **Bill Freeman**. After the customer has fully paid the invoice, Bill posts the incoming payment in accounting.

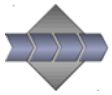
Table of Contents – Part II: Case Study – Bike Rental

Step 1: Create and Release Service Order

Task Create and release a service order. **Time** 10 min.

Description Use the SAP Fiori Launchpad to create and release a service order.

Name (Role) Lucy Rodriguez (Sales Person)

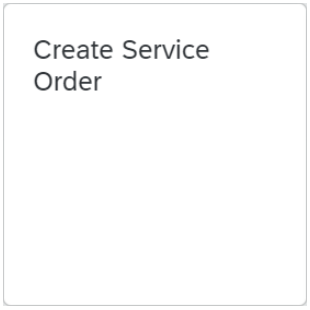


The service order (CS order) is the central document for controlling a service process. It is the basis for planning and posting and evaluating dates, capacities, and costs (planned and actual). The service order can include customer data and be used for revenue planning and posting (and in this contect control a sales process instead of a sales order).

The service order is the first document that is posted in the bike rental process. This process starts with the reservation of a rental bike by a customer (this can also be done by the customer itself via a smartphone app, see the bike-sharing process below, step 13). The following first describes a "guided" bike rental process in which the customer arrives in the rental shop to pick up a bike. The documents are then posted by the employees of bike store.

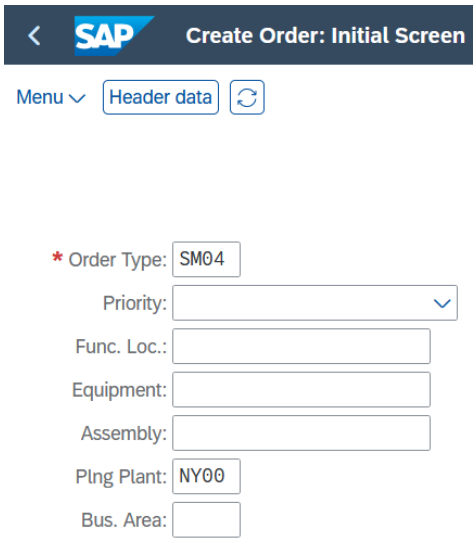
To create a service order, use the *Create Service Order* Fiori App in the *Service Management* area in the *Sales Person* role.

SAP Fiori app



Enter *Order Type* **SM04** and *Plng Plant* **NY00**, then click Header data.

SM04
NY00

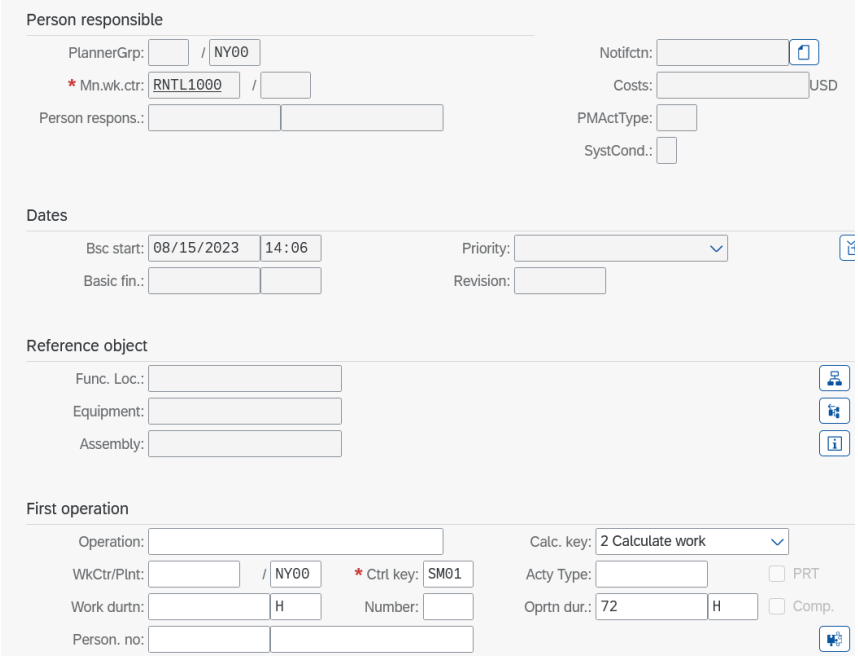


Now enter a description for your service order. To do this, enter **Bike Rental ###** in the field to the right of the order number.

Bike Rental ###

On the *HeaderData* → *Customer Address* tab page, enter **BR-###** as the *sold-to party*, and as *Mn.wk.cr*. **RNTL1000**, the **current date** as the *Bsc start*, **2 (calculate work)** as the *Calc. key*, **SM01** as the *Ctrl key*, **only the unit (H)** as the *work durtn*, and **72 H** as the *Oprtn dur*.

BR-###
RNTL1000
Current date
2 (calculate work)
SM01
H
72 H



Confirm your entries with **Enter**. The remaining fields are filled/calculated automatically.

Enter

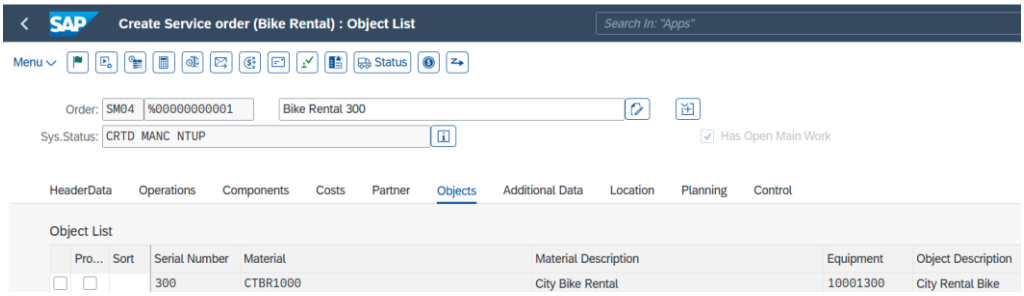
	The order describes a bike rental (work center RNTL1000) starting immediately (current date, current time) with a duration of 72 hours. The work (thus the capacity requirements of bikes and the planned costs) are calculated.

Switch to the *Objects* tab and assign technical objects (in this case, the serial number of the rental bike) to your order. To do this, enter ### as the *serial number* and **CTBR1000** as the *material* in the first line.

###
CTBR1000

As soon as you confirm your entries with **Enter**, the remaining columns are filled automatically.

Enter



	Note that the system selects the equipment number (that was displayed in step 2) for your object.

Navigate to the *Location* tab and in the *Sales and distribution* area, enter **UE00** as the *Sales Org.*, **IN** as the *Distr. Channel*, and **BR** as the *Division*.

UE00
IN
BR

Confirm your entries with **Enter**.

Enter

The system then displays a dialog box with the information that the company code is derived from the specified sales organization. Confirm the dialog box with .

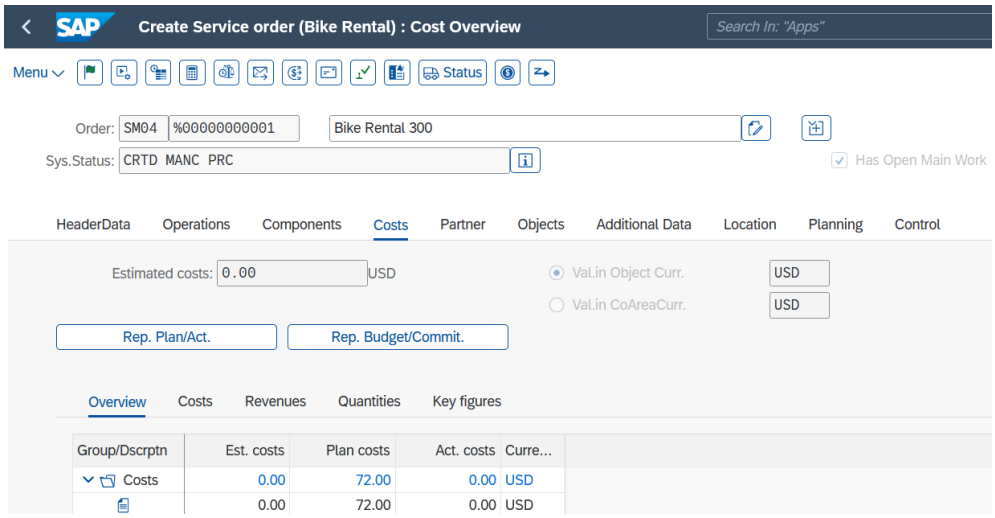
Enter

Now switch to the *Control* tab.

	A DIP profile for resource-related billing (GBBR1000) has already been assigned to the order via the order type. This profile later controls billing to the customer based on the rental period (and any other costs, e.g. in the event of damage).

Click to schedule your order and then click to determine the costs.

Now take a look at the determined costs by switching to the *Costs* tab.



The order shows planned costs of 72 USD, corresponding to the planned rental duration of 72 hours. The amount that is later invoiced to the customer depends on the actual rental period and can be finely controlled in resource-related billing (e.g. discounts, surcharges, additional costs in case of damage).

Go back to the *header data* tab.

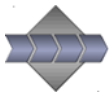
In the *Reference object* area, enter your equipment number **10001###**. 10001###

As a reference object, the equipment can pass on important attributes such as measurement points to the order. The update of measuring points will play a role later, when the bike is returned ("confirmation").

As you can see in the previous screenshot, starting from the start date, the system has a finish date (each including time). A bike is reserved during this period (in the SAP system: capacity is dispatched). In our case, the planned return time of the bike is 72h.

Confirm your entries with **Enter**. Enter

Ignore the message "Partner function does not exist in reference object" by clicking  .



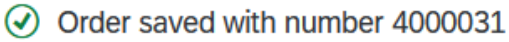
The bike has been checked and is now handed over to the customer (in an automated scenario, this corresponds to the customer opening the bike lock). We map this step by releasing the order.

Your order now needs to be released. To do so, click  .

Save your order by clicking on 

The system then issues a success message (shown as an example in the screenshot below). Note the order number.

Order Number: _____



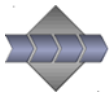
Return to the SAP Fiori launchpad by clicking on 
.

Step 2: Print Service Order

Task Print the CS order you just created (print preview). **Time** 5 min.

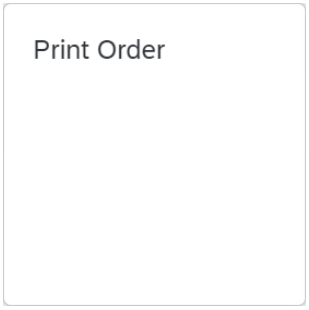
Description Use the Fiori Launchpad to print the CS order.

Name (role) Lucy Rodriguez (sales person), Evelyn Monroe (shop floor worker)

	We use the order printing to give out the relevant data of the order as a PDF file. The printout can be used to identify the bikes in case of reservations or can also be sent to the customer by e-mail as an order confirmation.

To print your service order, you use the Fiori app *Print Order in the Service Management* area in the role of *Sales Person*.

SAP Fiori app



On the *Print Order: Initial Screen* enter your previously noted **order number** (if necessary, it is already entered automatically by the system) in the *Order* field.

Order Number

If you no longer know your order number, use the  to find your order number.

In the dialog box, choose the tab *Orders using order type/controlling area* and enter the order type **SM04** and the *description* ***###***.

SM04
###

Click  and select your order by double-clicking it.

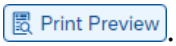
Press **Enter**.

Enter

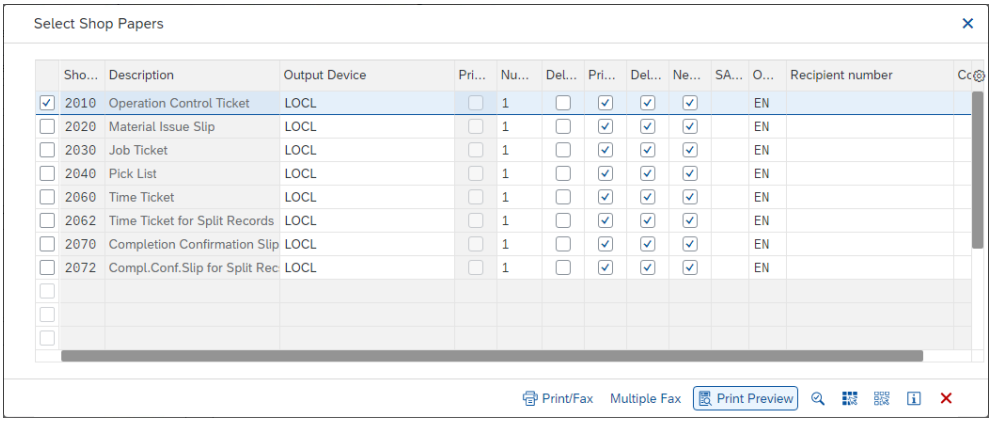
In the *Select Shop Papers* popup, deselect all entries by clicking on  .

Then select the row with the **shop paper 2010** (first line).

Select shop paper 2010

Click on 

.



The system displays a PDF document containing all relevant customer data and equipment data of the rental process It can be printed or sent via fax or e-mail, e.g., as a confirmation for the customer.

08/15/2023 Operation Control Ticket LEARN-300 Original Page 1

Order 4000031 *Order type* SM04 Service order (Bike Rental)
Description Bike Rental 300
Start date 08/15/2023
End date 08/18/2023
Priority
Status REL CSER NMAT PRC
Funct. location
Equipment 10001300 City Rental Bike
Assembly
Location *Room*
PM planner grp *PM plant* NY00
Main work center RNTL1000 NY00 NY Bike Rental
Maintenance plan *Maint. plan item*
Revision number

Sold-to party BR-300 *Phone*
Address
John Doe
First Avenue
NEW YORK CITY NY
USA

Operation 0010 **Bike Rental 300**
Status REL
Work center RNTL1000 NY00 NY Bike Rental
Control key SM01 *Confirmation number* 235
Operation key *Milestone*
Funct. location
Equipment
Work 72 H *Activity type* BKRNTL
Duration 72 H *Number* 1
Earliest start date 08/15/2023 *Start time* 14:44:00
Latest end date 08/18/2023 *End time* 22:44:03
Actual labor 0 H *Total float* 0 H

08/15/2023 Operation Control Ticket LEARN-300 Original Page 2

Object list for order: 4000031 Bike Rental 300

Sort field *Processing status*
Funct. location
Equipment 10001300 City Rental Bike
Assembly
Serial number 300 *Material* CTBR1000
Notification no.

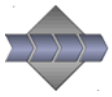
Return to the SAP Fiori launchpad by clicking on SAP.

Step 3: Reporting - Capacity Utilisation

Task Display the capacity utilization of your Bike Rental process. **Time** 10 min.

Description Use the Fiori Launchpad to view the capacity utilization.

Name (Role) Joe Sanders (Work Scheduler)



A capacity report is used to analyze the utilization of the rental bike park. The capacity utilization is the percentage of bikes in reservation / rental. The capacity is given by the 1000 rental bikes (capacity of the workstation RNTL1000). The capacity utilization is caused by the CS orders created in the system, which are a part of this rental bike park for the rental duration of 72 hours.

To evaluate the capacity utilization of your work center, use the Fiori app *Display Capacity Requirements* in the *Service Man*agement area in the *Work Scheduler* role.

SAP Fiori app

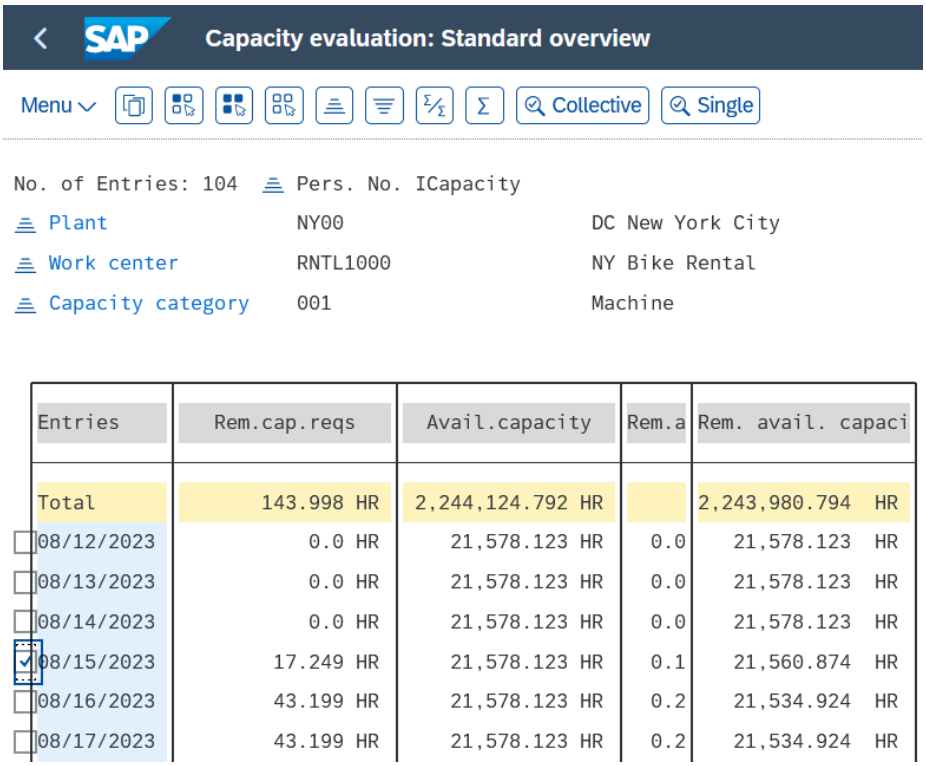
On the *Capacity evaluation* screen, enter **RNTL1000** as the *work center* and **NY00** as the *plant*.

RNTL1000
NY00

Click Continue.

The system displays a daily report of "remaining" capacity utilization (the scheduled rental time in the orders, reduced by confirmations of activity). The report shows the capacity requirements of all service orders posted and scheduled in the displayed time slot. The available capacity of 21578.1 hours per day corresponds to 999 bicycles in service 24 hours per day, reduced by 10% of the bikes repaired (see the display of the work center in step 1).

Select (on the left) one of the dates for which you know that your service order is planned (if it is in the past, select today). Use the button Collective to display the capacity details.

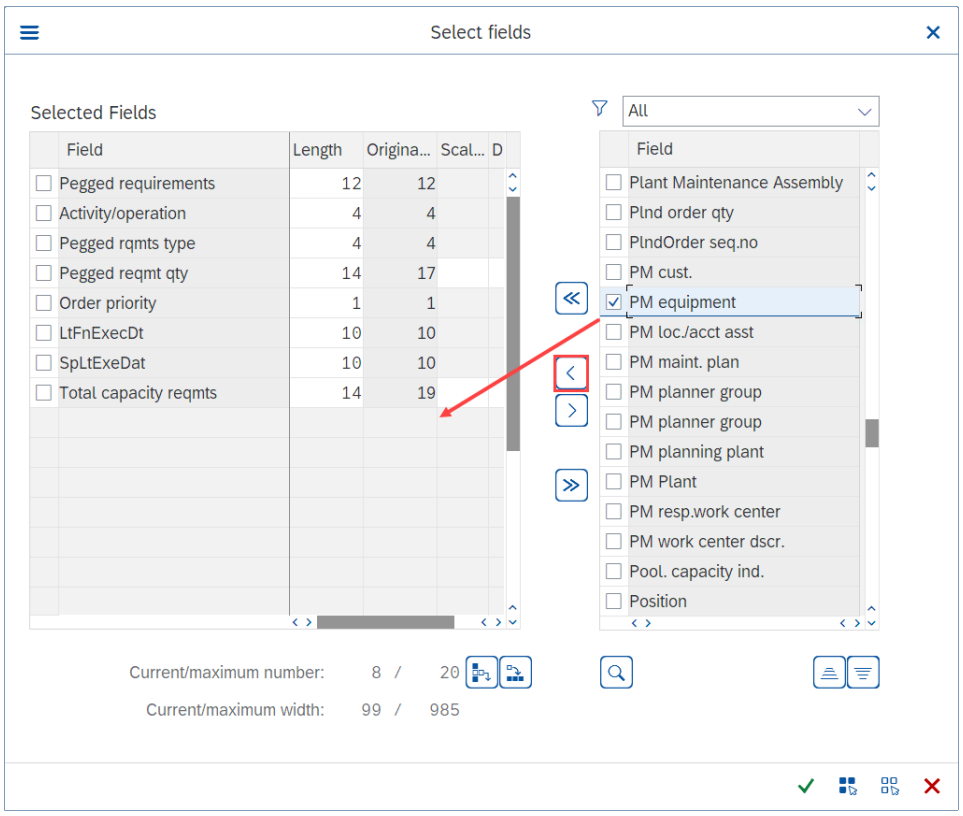


The system displays all orders (second column with order number) that generate capacity requirements on the selected day. In the column “Requirements” on the right side the total requirements of the orders are displayed. If you have made the right selection, the list should also contain your service order.

In the *Capacity Evaluation: Detail List* view, click on .

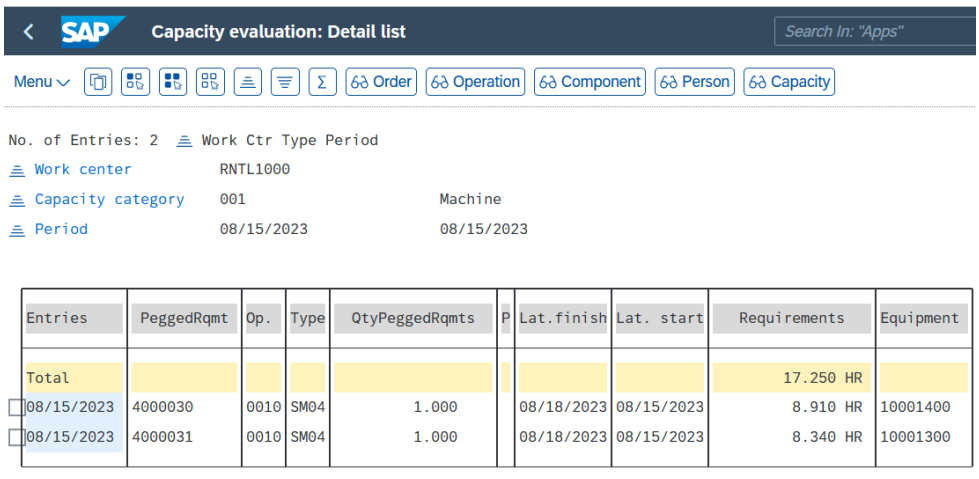
Search and select **PM equipment** in the right column. Click to add this column to your evaluation.

PM equipment



Then click on ✓.

The evaluation now also displays the equipment number of the rented bikes in the column on the far right.



Return to the SAP Fiori launchpad by clicking on SAP.

Step 4: Display Document Flow

Task Display the document flow in CS order processing. **Time** 5 min.

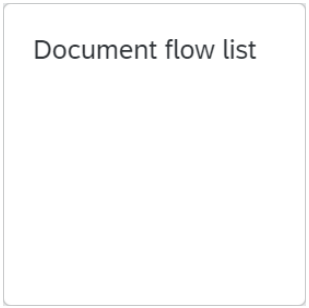
Description Use the Fiori Launchpad to display the document flow.

Name (Role) Lucy Rodriguez (Sales Person)

	On equipment level (that means for the individual bike) all documents posted in the past are displayed. This includes orders (with status), confirmations, billing requests and billing documents. The current list contains at least your CS order, but may also contain previous rental documents posted in the past for this bike.

To display the document flow *of your order, use the Fiori app Document Flow list in the* Service Management area in the *Sales Person* role.

SAP Fiori app



In the *Order* area, in the *Equipment* field, enter your **equipment number**.

Equipment Number

If you no longer know your equipment number, use the to find it.

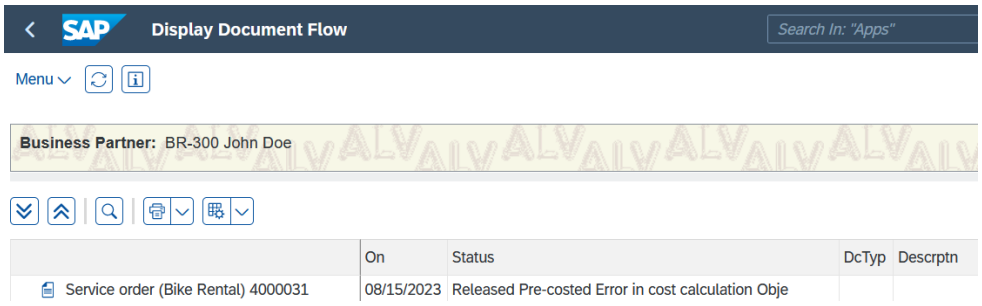
The serial number selection opens. Enter **CTBR1000** as the *material* and your three-digit number ### as the *serial* number.

CTBR1000
###

Click on Execute. Your equipment number is then automatically entered in the *Equipment* field.

Click on Execute.

	The report shows all rental data of "your" bike, but at least your service order with date and status. Until now no other documents (confirmation, invoice) are available for the order. This report will be used again later.



Return to the SAP Fiori launchpad by clicking on .

Step 5: Bike Return - Confirmation

Task Post the activity confirmation for the CS order. **Time** 20 min

Description Use the Fiori Launchpad to post a confirmation of activities.

Name (Role) Evelyn Monroe (Shop Floor Worker)

	The rental bike is returned by the customer. But the customer did not keep his reservation and rented the bike two days (48 hours) longer than originally agreed. This means that the actual rental time is 120 hours (a deviation from the plan) and therefore a surcharge will be added to the invoice later. As an employee of the bike rental company, you receive the bike, check it for damage and record the longer rental time. Mileage according to the mileometer as well as GPS coordinates of the return location are also recorded in the system.

To confirm the service order, use the SAP Fiori app *Enter PM Confirmation – IW41* in the *Service Management* area in the *Shop Floor Worker* role.

SAP Fiori app

In the *Order* field, enter your **order number**.

Order Number

If you no longer know your order number, use the  to find your order number.

In the dialog box, choose the tab *Orders using order type/controlling area* and enter the order type **SM04** and the *description* ***###***.

SM04
###

Click  and select your order by double-clicking it.

Click on **Enter**.

Enter

	The system displays the planned data as a default during confirmation: 72 hours “work”, work center RNTL1000 and the start / end of work as you specified when creating the order. Because the customer has rented the bike longer (120 hours) than agreed in the contract, we post an order confirmation with a deviation of 48 hours from the plan.

Enter **120 H** as the *actual work*, **+5 days** as **work finish**, **120 H** as the actual duration, and **delayed return ###** as the *confirmation text*.

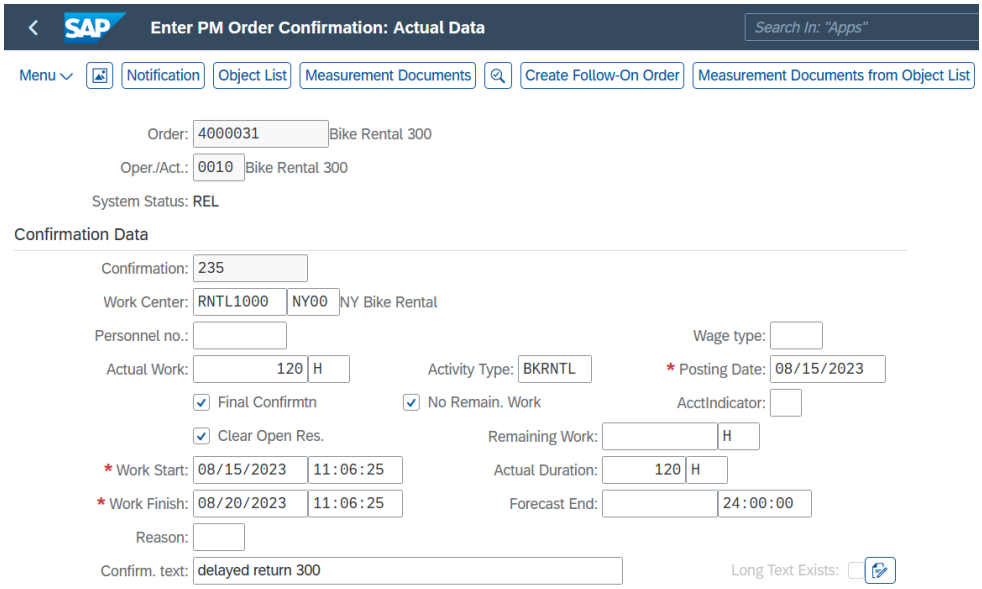
120
+5 days as work finish
120
delayed return ###

Confirm your entries with **Enter**.

Enter

If necessary, the system issues a warning that the end of work is in the future. Confirm again with **Enter**.

Enter



Click on Measurement Documents. Confirm the warning message again with **Enter**.

Enter

Click on All Measuring Points on Object.

The confirmation will record the mileage, the status, and the GPS data of the return location in the system. This is done by entering measurement documents. At this point, we enter the parameters manually - in an automated "bike sharing" process, these parameters are read by sensors in the bike itself and automatically posted.

In the *Measurement documents* area, enter the corresponding *Measurement Readings/Counter Readings* for the following measurement points:

Measuring Point Description	MeasReading/Counter Reading
GPS Longitude	**-73.99###5 deg**
GPS Latitude	**+40.73###2 deg**
State	**1 val**

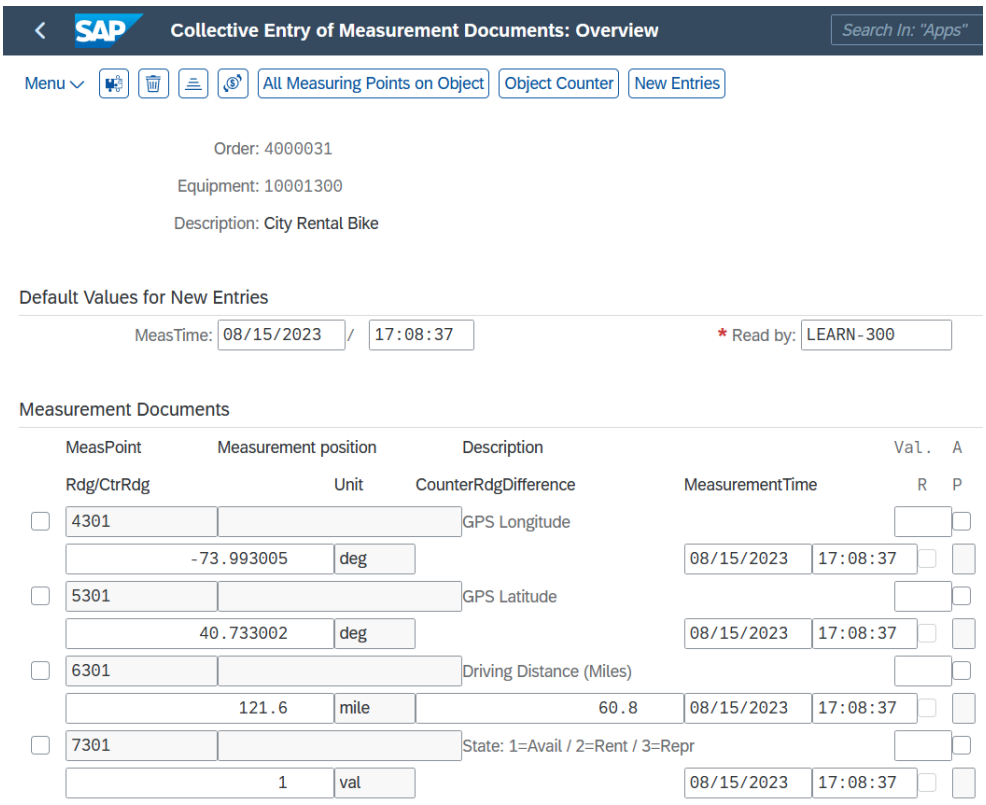
-73.99###5 deg
+40.73###2 deg
1 val

For the measuring point *Diving Distance*, enter **+60.8** as the *counter reading difference*.

+60.8

Confirm your entries with **Enter**.

Enter

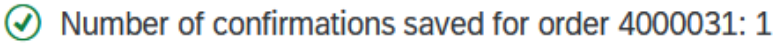


	The entries mean that the customer has driven 60.8 miles on the rental bike and the return point is at the GPS position 73.9### º West / 40.7### º North (this corresponds to a location near Union Square in New York, depending on the last digits of your number). The availability status after return is "1" (=available), which means that the bike is available for rent again for another customer. As mentioned above, all these measurements can be automated by sensors in the bike. Since this requires special hardware, it is not illustrated in these case studies.

Return to the *confirmation data entry screen* by clicking on  .

Click  to save your confirmation.

You will receive the following success message:



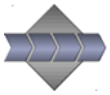
Return to the SAP Fiori launchpad by clicking on  .

Step 6: Create Billing Request

Task Create a resource-related billing request. **Time** 20 min

Description Use the Fiori Launchpad to create a Billing Request.

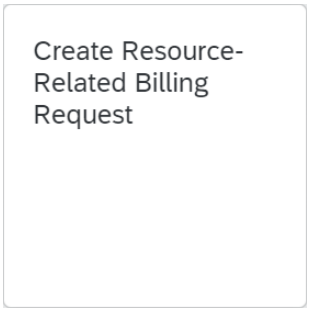
Name (Role) Lucy Rodriguez (Sales Person)



The customer is invoiced for the bike rental. Not the sale of a product is invoiced but all services (120h bike rental) are collected and billed (so-called resource-related billing). This means that the effort is calculated and a billing request is created as a result. This process is called resource-related billing. During billing, the employee can apply surcharges or discounts to individual items, defer them, or waive them altogether for the customer. Technically, the system uses different cost elements that lead to items of an invoicing document by so-called dynamic items.

To create a resource-related billing request, use the Fiori app *Create Resource-Related Billing Request* in the *Service Management* area in the role of *Sales Person*.

SAP Fiori app



In the *Service Order* field, enter your **order number**.

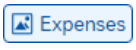
Order Number

If you no longer know your order number, use the  to find your order number.

In the dialog box, choose the tab *Orders using order type/controlling area* and enter the order type **SM04** and the *description* ***###***.

SM04
###

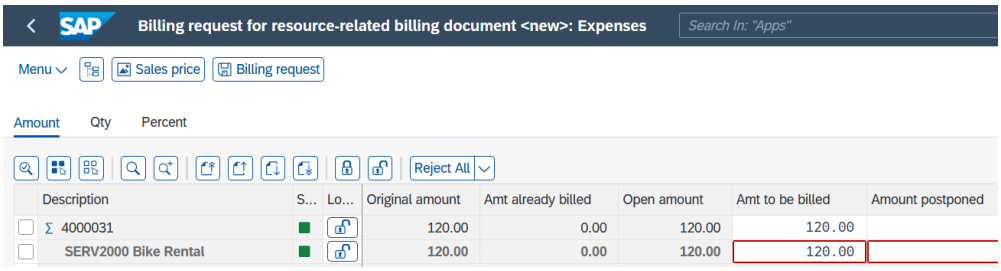
Click  and select your order by double-clicking it.

Click  to open the expense view.

So far, a so-called "dynamic item" is displayed for your service order, which is used to collect the effort of the bike rental (120 hours at 1 USD per hour). The actual effort (according to the confirmation) is used, differing in this case from the original planning (the customer reserved the bike for three days, but then rented it for five days). Technically, the "dynamic item" (SERV2000) is a material that is used to collect the costs of a cost element (or cost element interval) and then allocate them later in a sales document item using sales conditions. We now create a billing request for this dynamic item, including a 10% surcharge on the value.

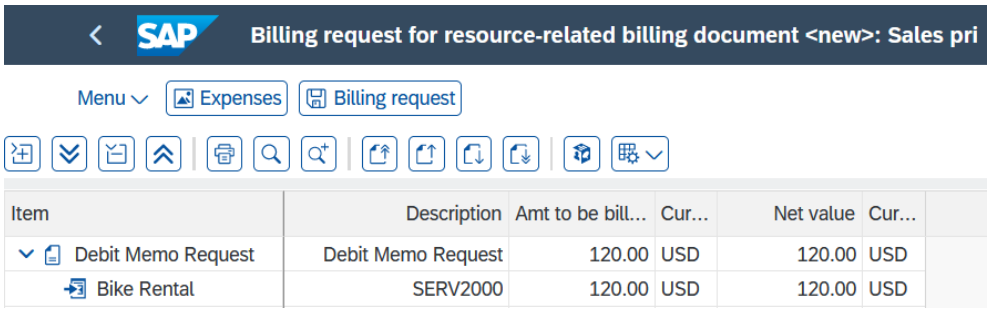
To fully bill our customer for the effort, first select the dynamic item via and then change the dropdown from Reject All to Bill All.

As you can see, this has also changed the status display from a red LED to a green LED.



Now click on Sales price to switch to the sales price view.

Click to expand all items of the sales document.



The upper section displays the sales document to be created ("debit memo request") and a line item ("bike rental"). In the lower section, you can edit conditions for the individual nodes (header or items).

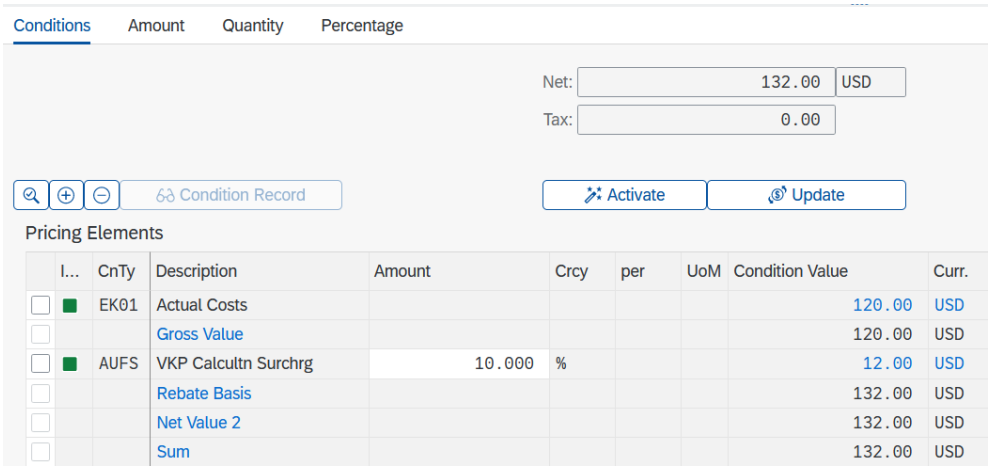
Now we enter a surcharge of 10% as a header condition.

To maintain the header conditions, double-click the line of the debit memo request.

If necessary, increase the size of the lower section using the separator to see all conditions and to be able to maintain additional conditions.

In the bottom line, enter **AUFS** as the condition type and an amount of **10**. Confirm your entry with **Enter**.

AUFS
10
Enter



I...	CnTy	Description	Amount	Crcy	per	UoM	Condition Value	Curr.
	EK01	Actual Costs					120.00	USD
		Gross Value					120.00	USD
	AUFS	VKP Calcultn Surchrg	10.000	%			12.00	USD
		Rebate Basis					132.00	USD
		Net Value 2					132.00	USD
		Sum					132.00	USD

The system adds another condition (AUFS) as a header condition, which works as a percentage surcharge of 10% on the rental fee (actual costs of condition EK01). The final amount increases by 12 USD to 132 USD. In the following, we save our work as a billing request: an SD document, similar to the delivery document for delivery-related billing, or analogous to a sales order for order-related billing.

Now click on Billing request to save your billing request.

In the *Create Billing Request* dialog box, choose Yes.

The system generates a debit memo request. This is a sales document which (similar to the delivery bill) is the basis for invoicing (billing). The document contains one item - we recognize the dynamic item SERV2000 and the net value of 132 USD.

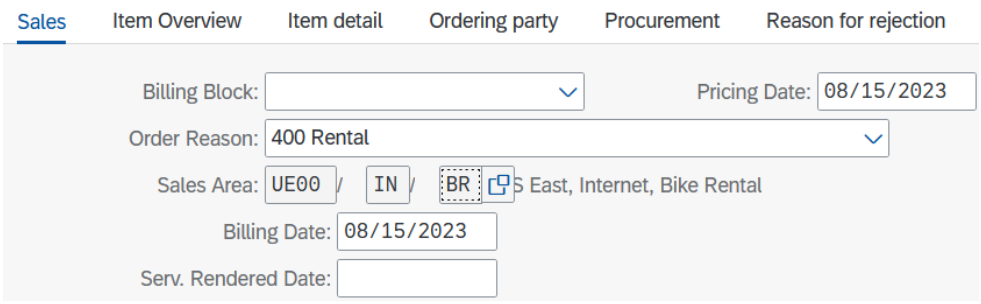
You will receive the following success message:

Debit Memo Request 70000003 has been saved.

To remove the billing block and enter an order reason, navigate to the *Sales* tab.

blank entry
Rental

In the *Billing Block* dropdown menu**,** select the **blank entry** (last entry) and select **Rental** as *Order Reason*.



Click on Save.

You will receive the following success message:

Return to the SAP Fiori launchpad by clicking on SAP.

Step 7: Create Billing Document

Task Create the billing document (bill your billing request document). **Time** 10 min.

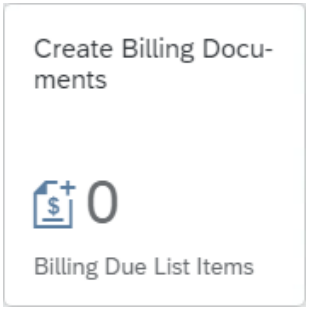
Description Use the Fiori Launchpad to create a billing document.

Name (Role) Bill Freeman (Accounting Clerk)

Based on the debit memo (billing request), we invoice the customer. In principle, this is the same as billing a delivery document. From a financial accounting perspective, billing posts receivables to revenues and taxes. The revenues are assigned to the CS orders and can be evaluated there.

To create a billing document, use the SAP Fiori app *Create Billing Documents* in the *Service Management* area in the role *Accounting Clerk*.

SAP Fiori app

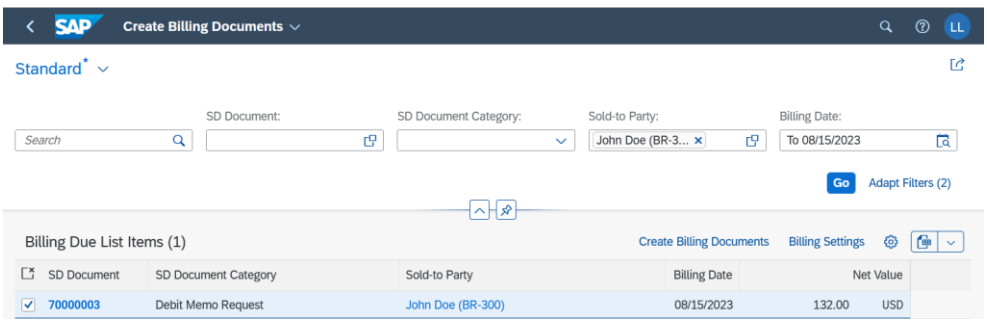


On the *Create Billing Documents* screen, search for your billing document request (which you created in the previous step) by entering **BR-###** in the *Sold-To Party* field and then clicking Go.

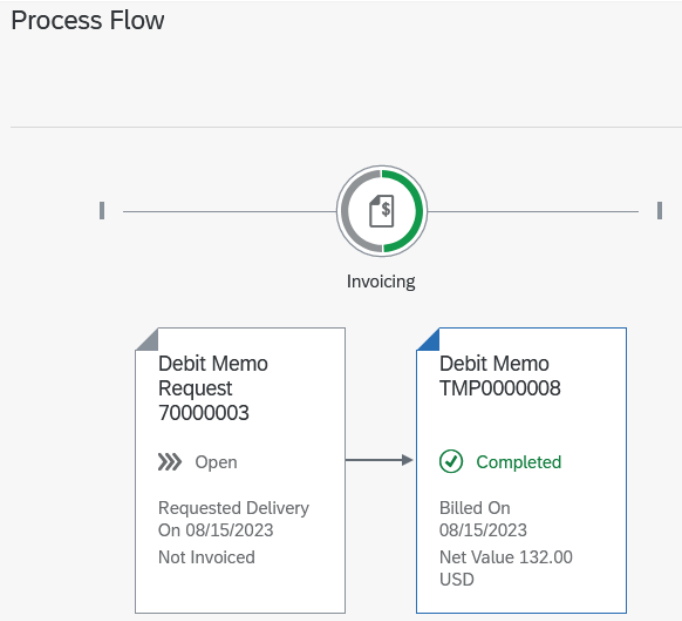
BR-###

The system displays all sales documents that are to be billed to customer BR-### (usually deliveries, orders, and debit memo requests). In this case, there is a debit memo request (billing request) to be processed.

Select your sales and distribution document and choose Create Billing Documents.

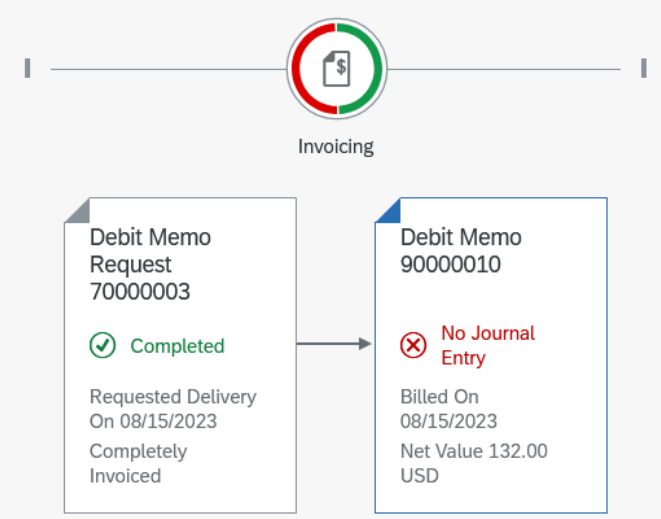


Select the *Process Flow* tab. Here, you can track the pre-defined steps that are relevant for billing.



Click **Save** to create your billing document.

Go back to the *Process Flow* tab, as you can see that no journal entry has been created for your billing document yet. This will be done in the next step.



Return to the SAP Fiori launchpad by clicking on SAP.

Step 8: Post Billing Document

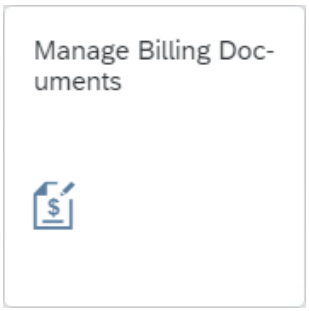
Task Post the billing document. **Time** 5 min.

Description Use the Fiori Launchpad to post a billing document.

Name (Role) Bill Freeman (Accounting Clerk)

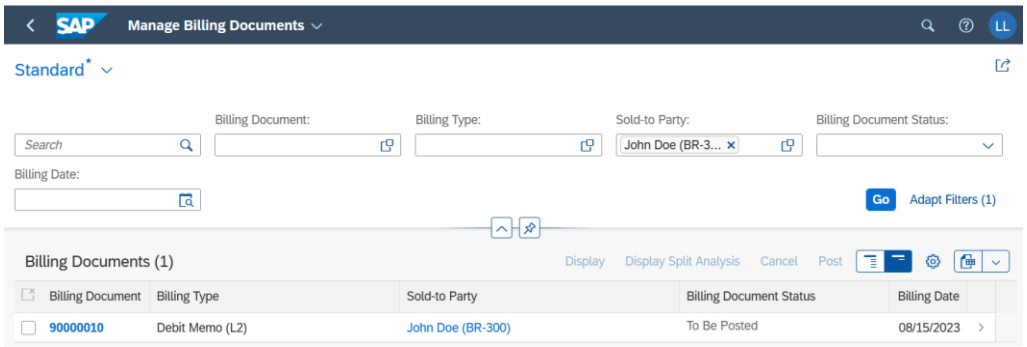
After the billing document has been created, it must be posted. You can do this using the *Manage Billing Documents* app in the *service management area* in the role of *Accounting clerk.*

SAP Fiori app



On the *Manage Billing Documents* screen, in the *Sold-To Party* field, enter your business partner **BR-###**. Click on Go

BR-###



Select your billing document. Click on Post.

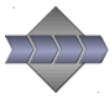
Return to the SAP Fiori launchpad by clicking on SAP.

Step 9: Post Incoming Payment

Task Post an incoming payment from the customer. **Time** 10 min.

Description Use the Fiori Launchpad to post incoming payments.

Name (Role) Bill Freeman (Accounting Clerk)

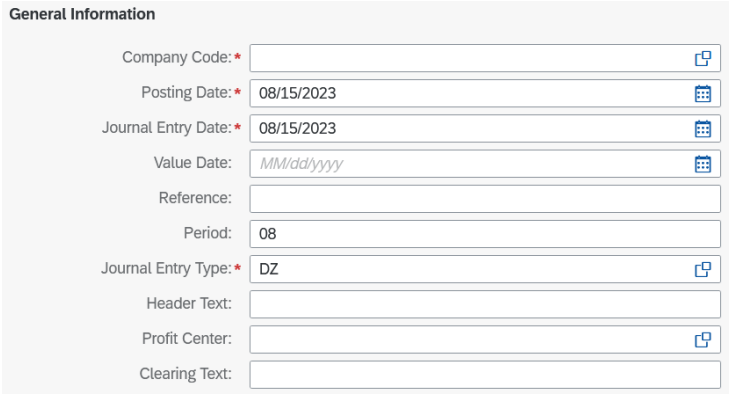
	The customer pays the invoice for the bike rent. This incoming payment is posted in Financial Accounting. The incoming payment reduces the Accounts Receivable balance and increases the balance of the Bank account.

You have received payment from the customer. To enter incoming payments, use the *Post Incoming Payments* app in the *Service Management* area in the *Accounting Clerk* role.

SAP Fiori app

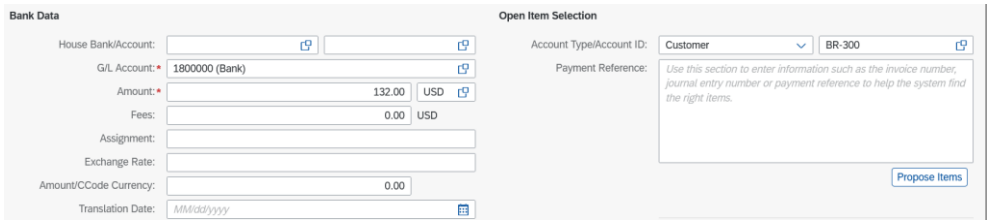
In the *General Information* area, enter **US00 (Global Bike Inc.)** as the *company code*. In the *Posting Date* and *Journal Entry Date* fields enter the **current date**. In the *Period* field, also select the **current period** (for example**, 09** for September). Ensure that **DZ (Customer Payment)** is selected as the *journal entry type*.

US00
Current date
Current date
Current period
DZ

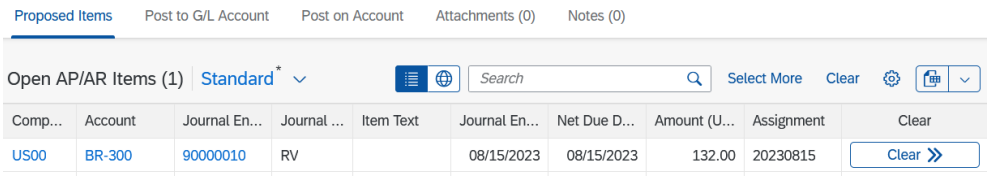


In the section *Bank Data*, select **1800000** as the *G/L account*. In addition, add **132.00 USD** as *amount*. In the section *Open Item Selection*, choose **Customer** as the *account type* and enter your business partner number **BR-###** in the field next to it. Compare your entries with the following screenshots.

1800000
132.00 USD
Customer
BR-###



Click on Propose Items. In the upper part of the screen, you can see that the balance has changed. This is now at **Balance: -132.00** USD because of the open receivable. In the *Open AP/AR Items* section, the posting document from the previous steps will also be proposed to you.

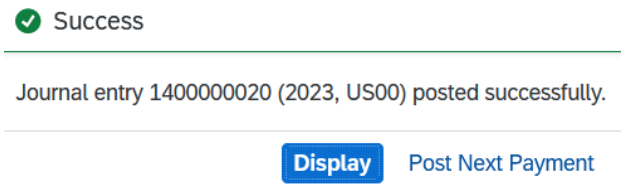


Comp...	Account	Journal En...	Journal ...	Item Text	Journal En...	Net Due D...	Amount (U...	Assignment	Clear
US00	BR-300	90000010	RV		08/15/2023	08/15/2023	132.00	20230815	Clear

The system selects all open items from the billing documents for customer BR-###. In our case, this should be exactly one item. The amount of the open items should be equal to the bank amount in the upper area (we assume that the customer pays their invoice in full). If this is not the case, enter the open items amount in the Bank Data - Amount (upper area) field.

In the row of the journal entry, choose Clear. The open items are added to the items to be cleared with the entered incoming payment.

Since the incoming payment covers the complete amount, the balance is cleared again with Balance: 0.00 USD. Click Post to save the incoming payment. The system will automatically assign a number to it.



Choose Display to display the journal entry in addition. In the Manage Journal Entries view, you can see individual posting items.

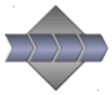
Return to the SAP Fiori launchpad by clicking on SAP.

Step 10: Display Document Flow

Task Display the document flow. **Time** 10 min.

Description Use the Fiori Launchpad to display the document flow.

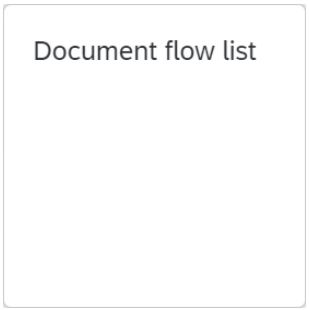
Name (Role) Lucy Rodriguez (Sales Person)



Finally, the orders with their status and the document flow are to be evaluated for your equipment.

To display the document flow of your order, in the *Service Management* area in the role of *Sales Person* use the SAP Fiori app *Document Flow List*.

SAP Fiori app



In the *Order* area, in the *Equipment* field**,** enter your **equipment number**.

Equipment Number

If you no longer know your equipment number, use the  to find it.

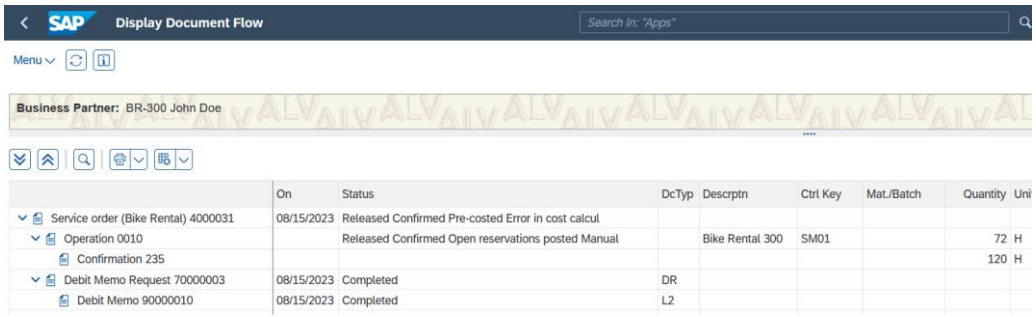
The serial number selection opens. Enter **CTBR1000** as the *material* and your three-digit number ### as the *serial* number.

CTBR1000
###

Click on Execute. Your equipment number is then automatically entered in the *Equipment* field.

Click on Execute.

The system shows the entire document flow to date for "your" bike, including your service order. All posted documents are listed for the order, including confirmation, debit memo request and debit memo. The incoming payment document is not part of the document flow, because the payments are assigned to the open receivables and not directly to the order.



Display your service order. Double-click on the line of the Service Order.

Open the *Costs* tab. Look at the subdirectories *Costs* and *Revenues*.

The system displays planned costs of 72 USD, actual costs of 120 USD and actual revenues of 132 USD. Without our surcharge of 10% from step 9, the actual costs would be equal to the actual revenues (and the "profit" would therefore be zero at the level of the order. However, the company profit results from the difference between revenues and primary costs (such as: personnel wage and depreciation of bicycles). It can be evaluated at the level of cost center NABR1000, which represents bike rental.

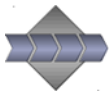
Return to the SAP Fiori launchpad by clicking on SAP.

Step 11: Cost Center Report

Task Display the cost center report. **Time** 15 min.

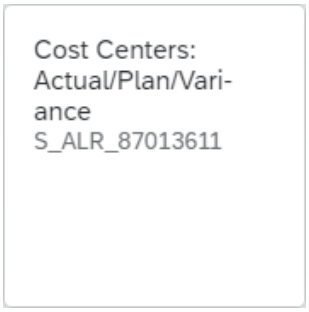
Description Use the SAP Fiori Launchpad to display the cost center report.

Name (Role) Bill Freeman (Accounting Clerk)

	You can use the cost center report to analyze plan and actual costs.

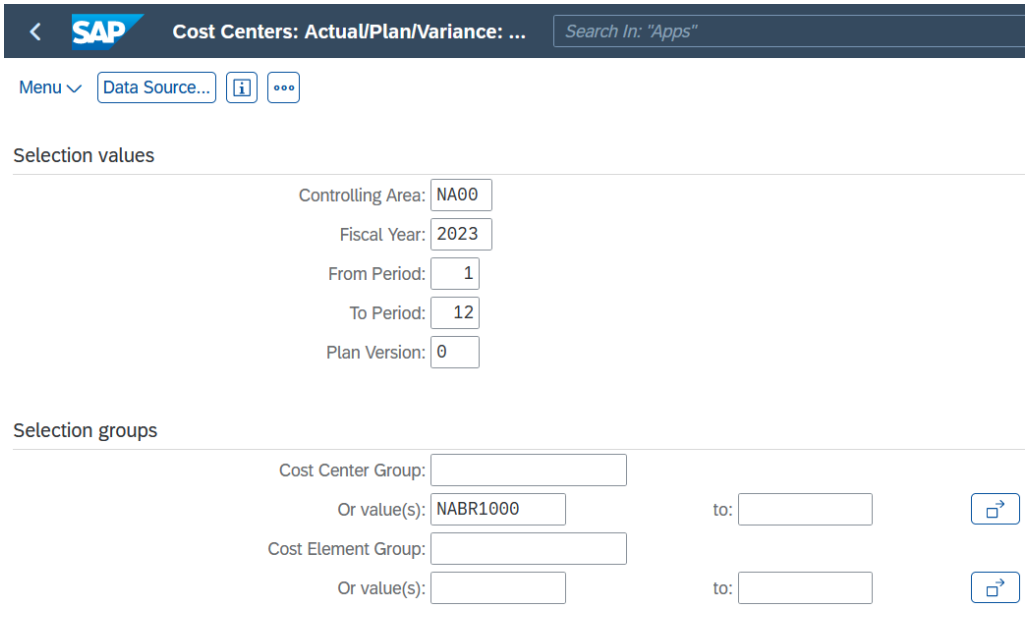
To display the cost center report, use the *Cost Centers: Actual/Plan/Variance app in* the area of *service management* in the role of *Accounting Clerk.*

SAP Fiori app



On the *Cost Centers: Actual/Plan/Variance: Selection* screen, enter **NA00** as the *controlling area*, the **current year** as the *fiscal year*, **1** as *From period*, **12** as *To period*, and **0** as the *plan version*. Enter **NABR1000** as *cost center group or value(s).*

NA00
Current year
1
12
NABR1000



Click on **Execute**.

The report displays the costs (of renting all bikes) by cost type (upper section) and by activity type (lower section). By double-clicking on the individual rows, you can drill down to line item reports.

Double-click the row with cost element *8021000 Bike Rental*.

Cost Elements	Act. Costs	Plan Costs	Var.(Abs.)	Var.(%)
8021000 Bike Rental	552.00-	500,000.04-	499,448.04	99.89-
8022000 Bike Repair		250,000.00-	250,000.00	100.00-
* Credit	552.00-	750,000.04-	749,448.04	99.93-
** Over/Underabsorption	552.00-	750,000.04-	749,448.04	99.93-

In the *Select Report* dialog box, select **Cost Centers: Actual Line Items**. Click on ✓.

Cost Centers: Actual Line Items

The line item report displays the individual documents for cost element 8021000. Each line corresponds to a posting (in this case, a confirmation document). It would be desirable to display the service order for each confirmation document.

Click ▦ to change the layout. On the right side in the column set, select **Partner Order no.**. Click ‹ and then click ✓.

Partner Order no.

The rightmost column now displays the account assigned service orders.

Cost Elem.	Cost element name		Val.in rep.cur.	Total quantity	PUM	Off	Offsetting Acct	Name of Offsetting Account	Partner order no.
8021000	Bike Rental		120.00-	120.0-	HR				4000022
	Bike Rental		120.00-	120.0-	HR				4000023
	Bike Rental		24.00-	24.0-	HR				4000025
	Bike Rental		24.00-	24.0-	HR				4000024
	Bike Rental		24.00-	24.0-	HR				4000027
	Bike Rental		120.00-	120-	H				4000029
	Bike Rental		120.00-	120-	H				4000031
Cost Center NABR1000 NA Bike Rental / NA...		*	552.00-						
		* *	552.00-						

Select the line of your service order. Click Document to analyze the source document through which the corresponding business transaction was entered.

The source document is the confirmation document that you entered using the confirmation of the service order.

Now click Administr. to see in the administrative information who entered this document and when.

	You entered the confirmation document yourself on the date displayed – this should at least result in the display.

In the *Administrative Info* popup, click ✓.

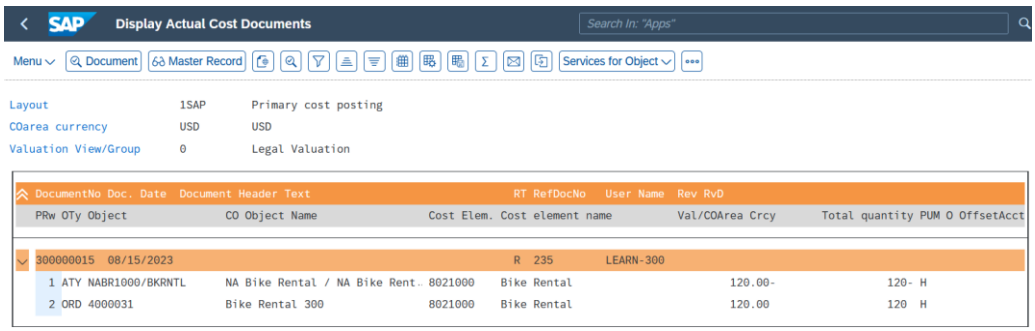
Click ← to return to the line item display.

Check the accounting documents related to the business transaction by following the menu path below:

Menu → Environment→ Accounting Documents

In the *List of Documents in Accounting* dialog box, select the **controlling document** and then click 🔍.

Controlling document



	The controlling document for the confirmation is a direct internal activity allocation from cost center NABR1000 to your order. This credits the cost center and debits the order with secondary costs.

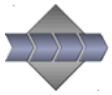
Return to the SAP Fiori launchpad by clicking on SAP.

Part III: Case Study – “Bike Sharing“

Learning Objective Understand and execute a non-guided bike rental process ("Bike Sharing").

Time 15 min.

Description In this part of the case study “Bike Sharing”, a bike sharing process is conducted where customers rent a bike from an app at a random location in the city and return it to a random location. The location determination of the bike sharing process works for the randomly distributed borrowable bikes in the city via GPS tracking.



The same business process as in the previous section “Part II - Bike Rental” is performed again, this time from the perspective of an automated bike sharing process. This means that the customer does not pick up rental bikes in a store. Rather, the customer uses a smartphone app to find the closest available rental bikes (GPS search), registers as a customer, and enters the bike's serial number located on the bike into the app. This registration opens the bike lock and starts the sharing process - the service order is automatically created and released in the SAP system. At the end of the rental, the customer locks the bike at selected drop-off locations in the city. This locks the rental bike again and automatically posts a confirmation in the system (with GPS location and mileage). The “occupied” status is reset to “available”. The billing process is done by the company's employees as before, but usually in collective processing for all customers.

Scenario The customer, who has already rented a bike from the Global Bike Shop in Part II "Bike Rental", is now traveling in New York City near Union Square in Lower Manhatten and would like to rent one of the many bikes that Global Bike has distributed in the city for self-rent. Since the customer has already been registered in the Global Bike Shop, all the customer has to do is log in to the bike rental app with his user data. The bike rental app provides an overview of all rental bikes in the customer's area. The customer now has the option to rent one of the bikes via app. After the customer has explored Lower Manhatten with the rental bike, he or she can easily return the bike at any point in the city via the bike rental app.

At this point, our sales person Lucy receives a notification that the bike sharing process has been completed by the customer and she then creates an expense-related billing request (direct debit request) in which the duration of the bike sharing is included in order to bill the customer for it. Based on the billing request, an invoice is sent to the customer with the request for payment. After the customer pays the invoice in full, Bill records the payment receipt in the accounting system.

These steps are skipped in the “Bike Sharing” process, because they have already been done in a similar way in Part II “Bike Rental”.

Table of Contents – Part II: Case Study – Bike Sharing

Step 1: Rent a bike in the area

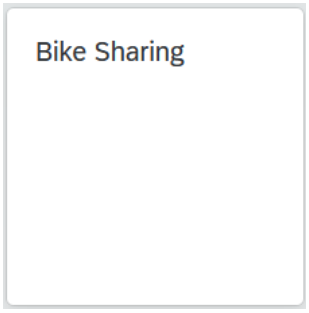
Task Find a bike in the area and rent it. **Time** 5 min.

Description Use a QR code or the Fiori Launchpad to open the bike rental app. Then rent a bike in your area.

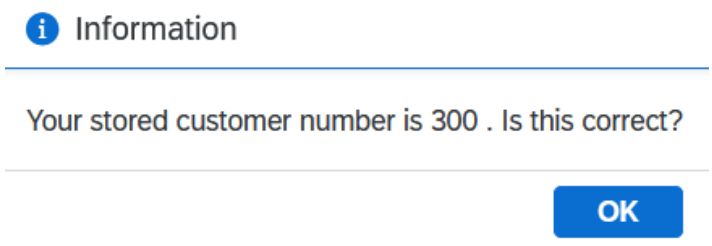
	The customer searches for the nearest available rental bike in the city with the help of the bike rental app. Usually, a GPS-enabled smartphone is used for this task: The app calculates the GPS distance from the customer's own location to the GPS locations of all bikes. In this case study, the app uses a static customer location, only to simulate this process. A customer location in New York City is used (E73.96### °/ N40.78### ° , varied by student number ###) to center the map and display the bike list sorted by nearness.

To find a bike in your area, use the Fiori app *Bike Sharing in* the area of *service management* in the role of *Customer*.

Fiori App



When you open the app, you will receive information that the app will use your three-digit number (###) as the customer number. Confirm the message by clicking on OK.



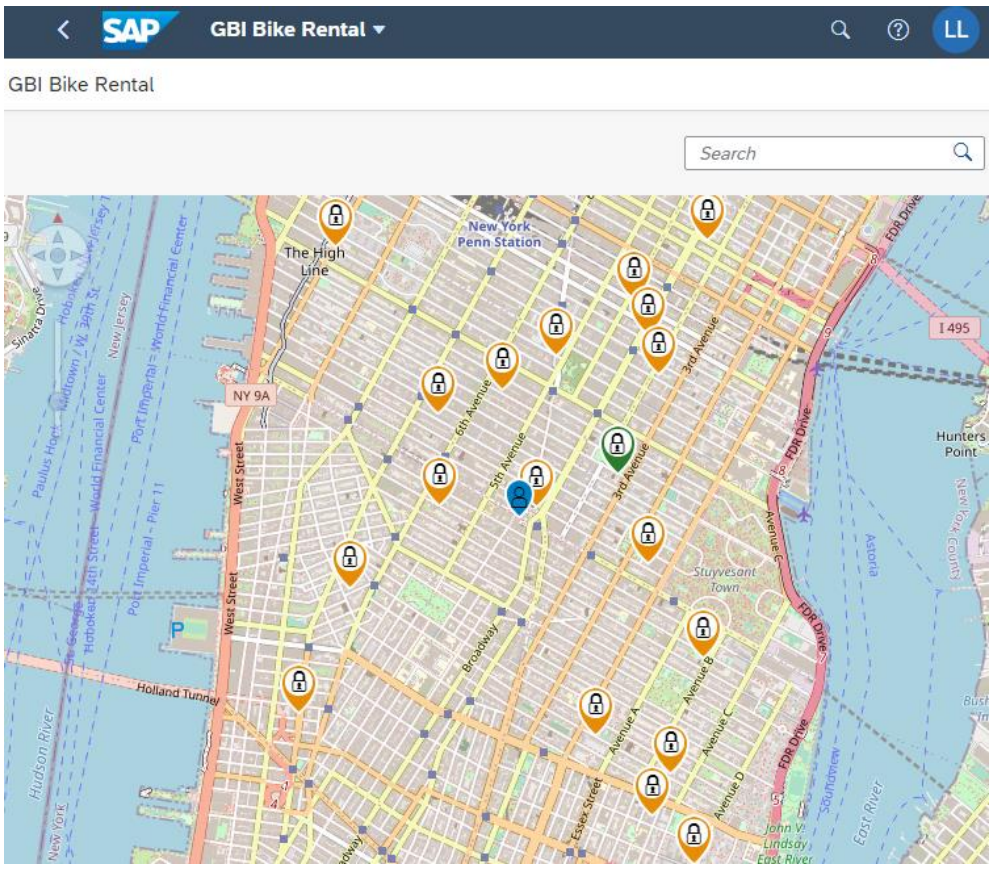
The app displays the map area around your current location (south of Union Square in New York City) as well as closest bike locations to your own location. The following icons are used in the app:

Your current location.

This bike is currently not available, e.g. because it may have been booked by another customer.

This bike is freely available and can be rented.

This bike is currently rented by you.



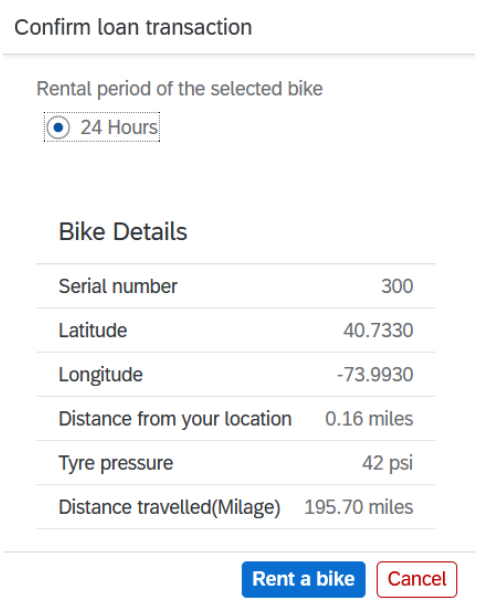
Select an available bike by clicking on  .

Alternatively, you can enter your three-digit number (###) in the search field in the upper right corner and confirm with Enter. The system will then automatically assign you the closest bike to your position.

###

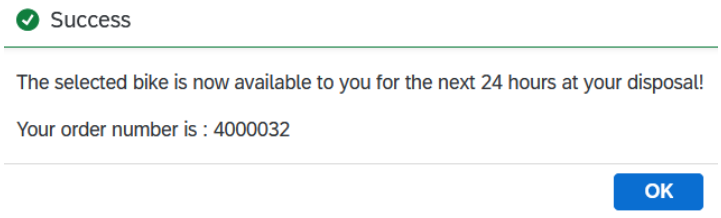
After you select an available bike, the *Confirm loan transaction* popup will appear.

	The popup shows you information about the bike. For example, you can see the distance to your current location and the tire pressure. Currently it is only possible to rent bikes for 24h.



Click on **Rent a bike**.

You will receive an order confirmation. Click on **OK**.



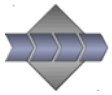
Your bike will now be marked as rented  on the map.

Stay in the app for the next step of the case study.

Step 2: Bike return

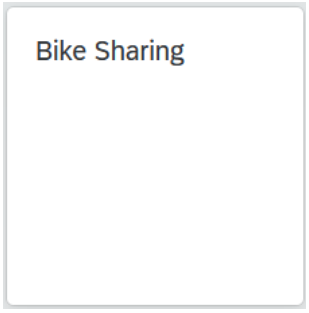
Task Hand back your rented bike. **Time** 5 min.

Description Use the bike rental app to return the rental bike. This will end the rental process.

	The customer returns the bike by locking it up at one of the numerous return stations (e.g., at a lockable bike rack somewhere in the city) or by returning it directly to the bike store. The customer then starts the bike rental app and finishes the rental there. The customer then gets billed for the time used. The customer also receives a confirmation of the return.

If you have not stayed in the bike rental app, access the app again by using the Fiori app *Bike Sharing* in your Launchpad.

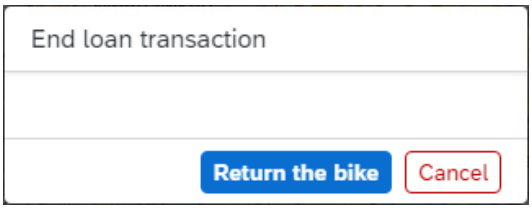
Fiori App



Select your rented bike on the map by clicking on  .

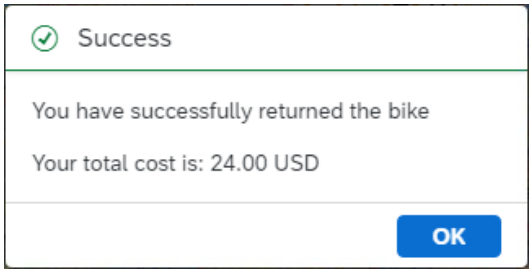
Alternatively, you can enter your three-digit number (###) in the search field in the upper right corner and confirm with Enter.

After you have selected your rented bike, the popup *End loan transaction* will appear.



Click on **Return the bike**.

You will then receive a success message. Click on **OK**.



At this point, as in Part II - Step 5 of the case study, a confirmation of your service order has been entered into the system. The system determines the order number from the customer number and the serial number of the bike. The rental period is determined as the difference: Confirmation Time minus Start Rental Time.

The bike will now be marked as " available"  on the map again. Notice that the bike is now in a different location on the map. This simulates actual use of the bike.

Return to the SAP Fiori launchpad by clicking on  .

Step 3: Display Document Flow

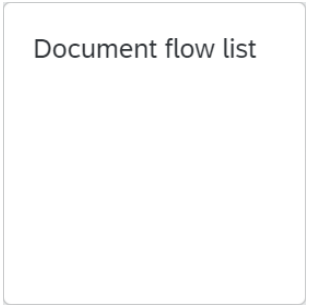
Task Display the document flow. **Time** 5 min.

Description Use the Fiori Launchpad to display the document flow.

Name (Role) Lucy Rodriguez (Sales Person)

To display the document flow of the Bike Sharing Process, in the *Service Management* area in the role of *Sales Person* use the SAP Fiori app *Document Flow List*.

SAP Fiori app



In the *Order* area, in the *Equipment* field**,** enter your **equipment number**.

Equipment Number

If you no longer know your equipment number, use the **F4 help** to find it.

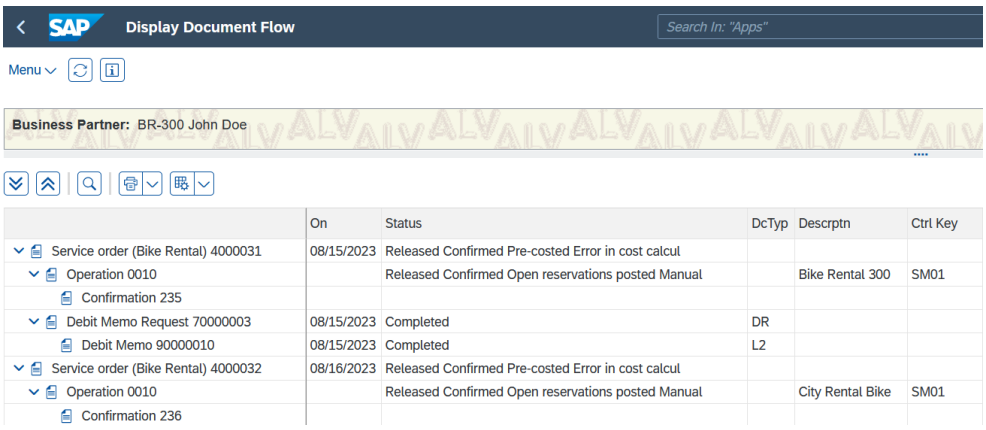
The serial number selection opens. Enter **CTBR1000** as the *material* and your three-digit number ### as the *serial* number.

CTBR1000
###

Click on Execute. Your equipment number is then automatically entered in the *Equipment* field.

Click on Execute.

Der Bericht zeigt alle Ausleihdaten „Ihres“ Fahrrads an. Als Sie das Fahrrad ausgeliehen haben, wurde ein Serviceauftrag generiert und als Sie es zurückgegeben haben, wurde eine Rückmeldung angelegt. Sowohl den Serviceauftrag, als auch die Rückmeldung, können Sie sich per Doppelklick auf den jeweiligen Beleg im Detail ansehen.



Return to the SAP Fiori launchpad by clicking on .