



SAP MM

material management

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About the Tutorial

SAP is an enterprise resource planning software that was basically designed to manage resources, information and activities that are required to complete business processes such as procurement and managing orders, billing of orders and management of human resources. SAP applications work with real-time data. It has the ability to be configured according to the needs of the business. It allows a business to make rapid changes in its requirements through a common set of programs.

This tutorial adopts a step-by-step approach to acquaint the readers with the SAP MM environment and how to make good use of its features. It will also help learners to perform procurement of stock materials in SAP.

Audience

This tutorial has been designed for beginners without prior exposure to materials management. With the customer demands changing rapidly, this tutorial will be especially useful for those who want to learn how to manage the supply chain management side of the business using SAP so that market demands can be met in the shortest possible time.

Prerequisites

A basic knowledge of ERP concepts will help you in understanding the concepts of SAP Material Management System described in this tutorial.

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1. OVERVIEW

SAP ERP (Enterprise Resource Planning) is a commercial software that integrates all the information in a single software, considering various factors such as time and cost. Organizations can easily meet their business demands with the help of SAP.

SAP Business Process

SAP MM is the short form for SAP Material Management system. The roles of SAP MM in a business process are as follows:

- A business process in SAP is termed as a “module”.
- SAP MM is a part of logistics functions and it helps in managing the procurement activities of an organization.
- It supports all aspects of material management (planning, control, etc.).
- It is the backbone of logistics that incorporates modules such as Sales and Distribution, Production Planning, Plant Maintenance, Project Systems, and Warehouse Management.

Features of SAP MM

The features of a SAP MM system are as follows:

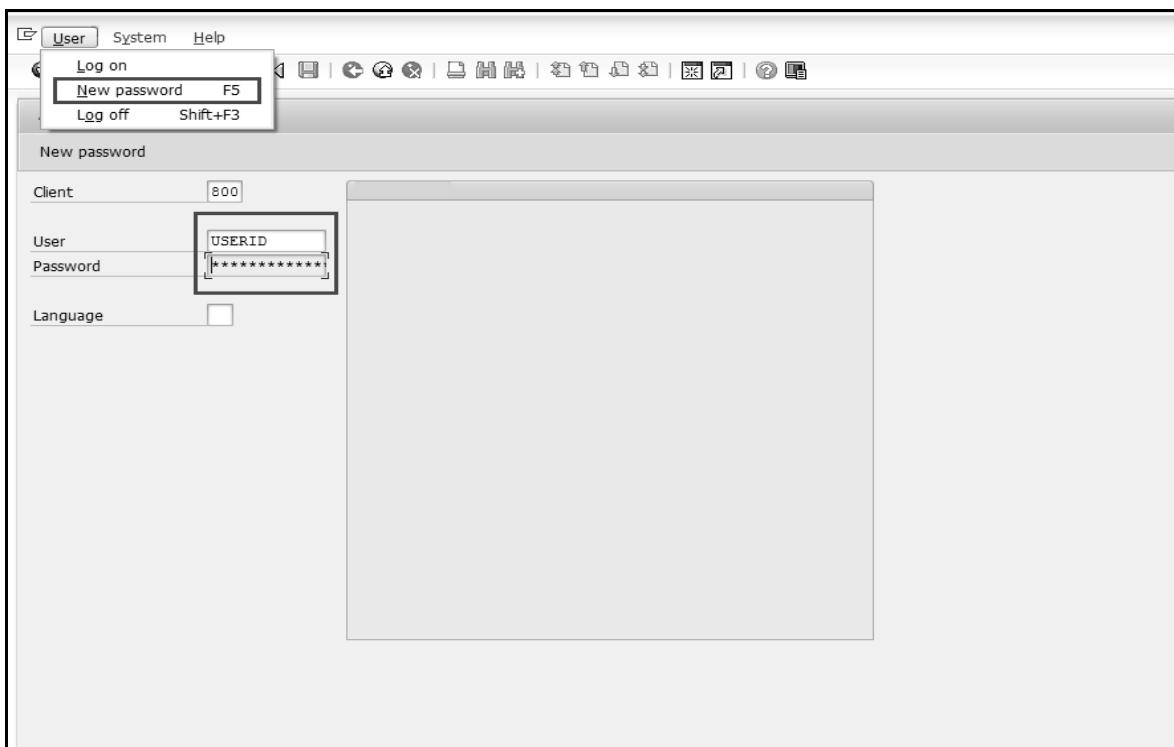
- SAP MM is one of the modules of SAP that deals with material management and inventory management.
- Material Management as a process ensures no shortage of materials or any gaps in the supply chain process of the organization. SAP MM speeds up the procurement and material management activities, making the business run smoothly with complete time and cost efficiency.
- It deals with managing the materials (products and/or services) and resources of an organization with the aim of accelerating productivity and reducing costs. At the same time, SAP MM is quite versatile to accommodate changes that are frequent in any business environment.
- It deals with the Procurement Process, Master Data (Material & Vendor Master), Account Determination & Valuation of Material, Inventory Management, Invoice Verification, Material Requirement Planning, etc.

2. SCREEN NAVIGATION

The first step to understand SAP is to have a basic knowledge of its various screens. The following sections describe how to navigate through the screens available in SAP and how to use the functionalities of the standard toolbar.

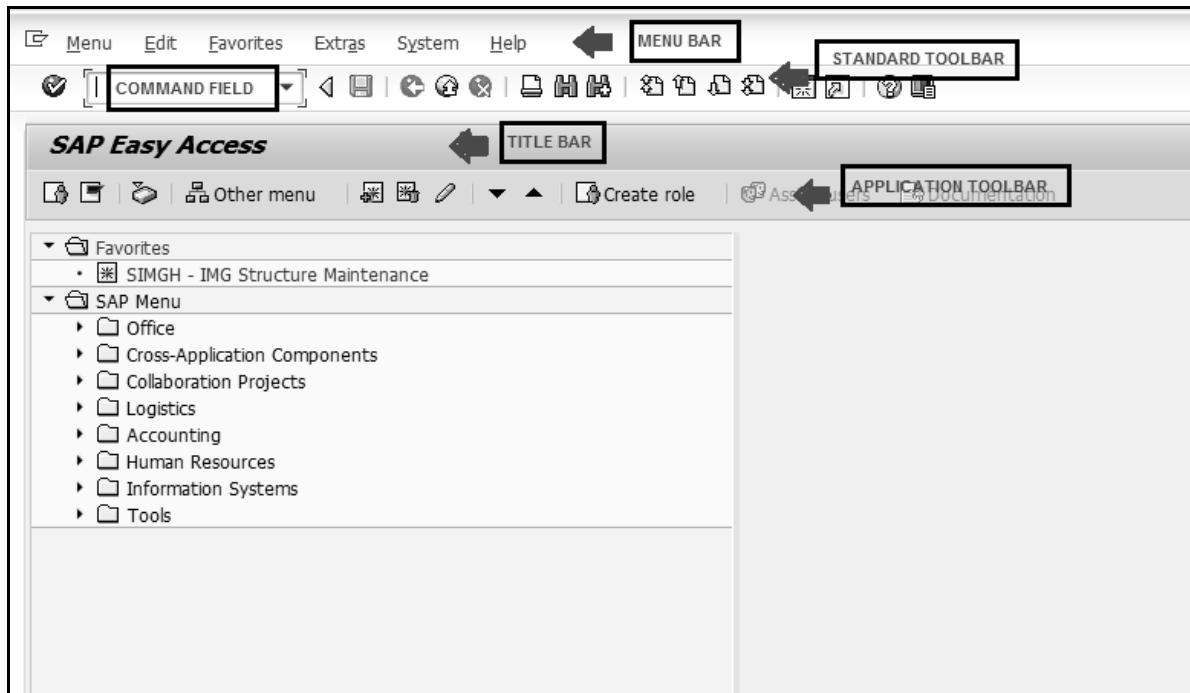
Login Screen

Log on to the SAP ERP server. The SAP login screen will prompt you for the User ID and the Password. Provide a valid user ID and password and press enter. The user id and password are provided by the system administrator. The login screen appears as follows:



Standard Toolbar Icons

The following screenshot shows the toolbars available on the SAP screen.

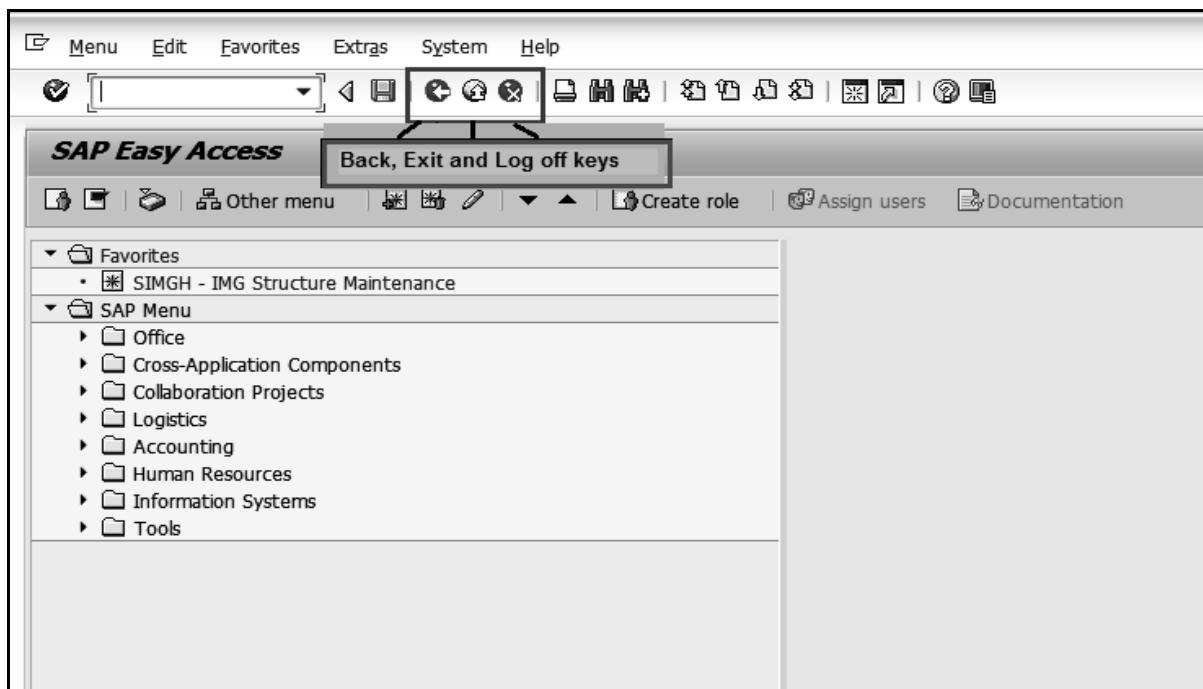


Given below is a brief description of the available toolbars:

- **Menu Bar** - Menu bar is the topline of the dialog window in the SAP system.
- **Standard Toolbar** - This toolbar includes standard functions such as save, top of page, end of page, page up, page down, print, etc.
- **Title Bar** - Title bar displays the name of the application/business process you are currently in.
- **Application Toolbar** - Application-specific menu options are available on this toolbar.
- **Command Field** - To start a business application without navigating through menu transactions, some logical codes are assigned to the business processes. Transaction codes are entered in the command field to start an application directly.

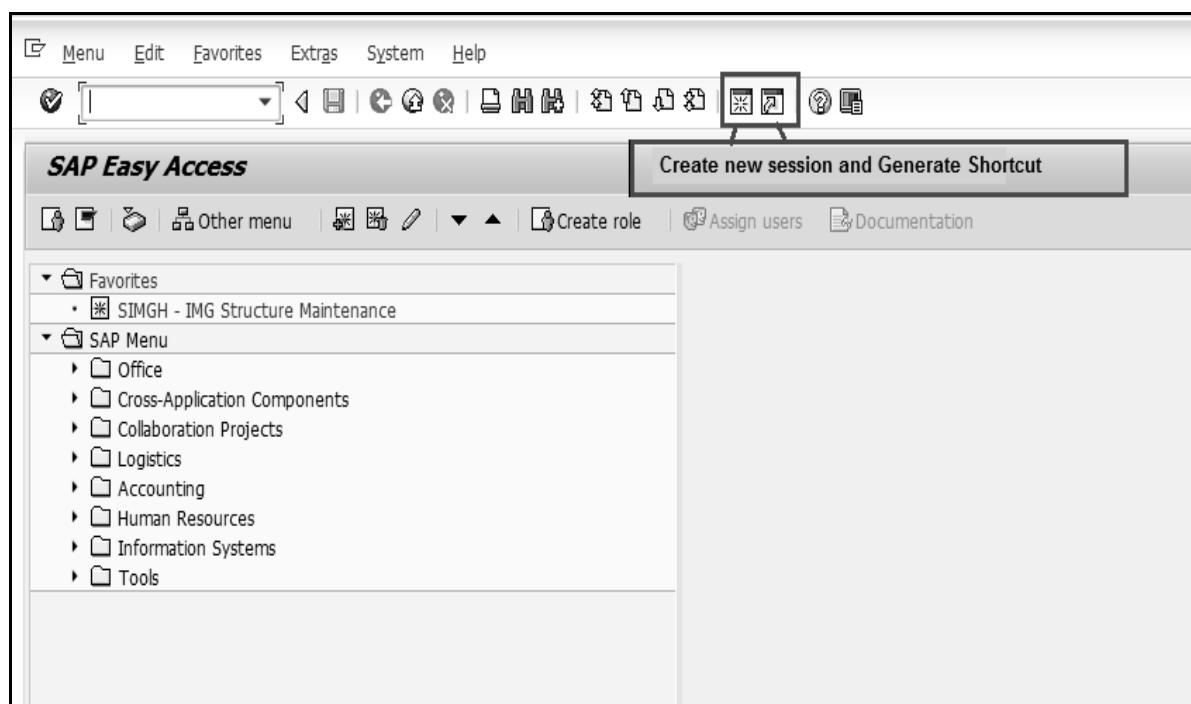
Standard Exit Keys

Exit keys are used to exit the module or to log off. They are used to go back to the last accessed screen. The following screenshot highlights the standard exit keys used in SAP:



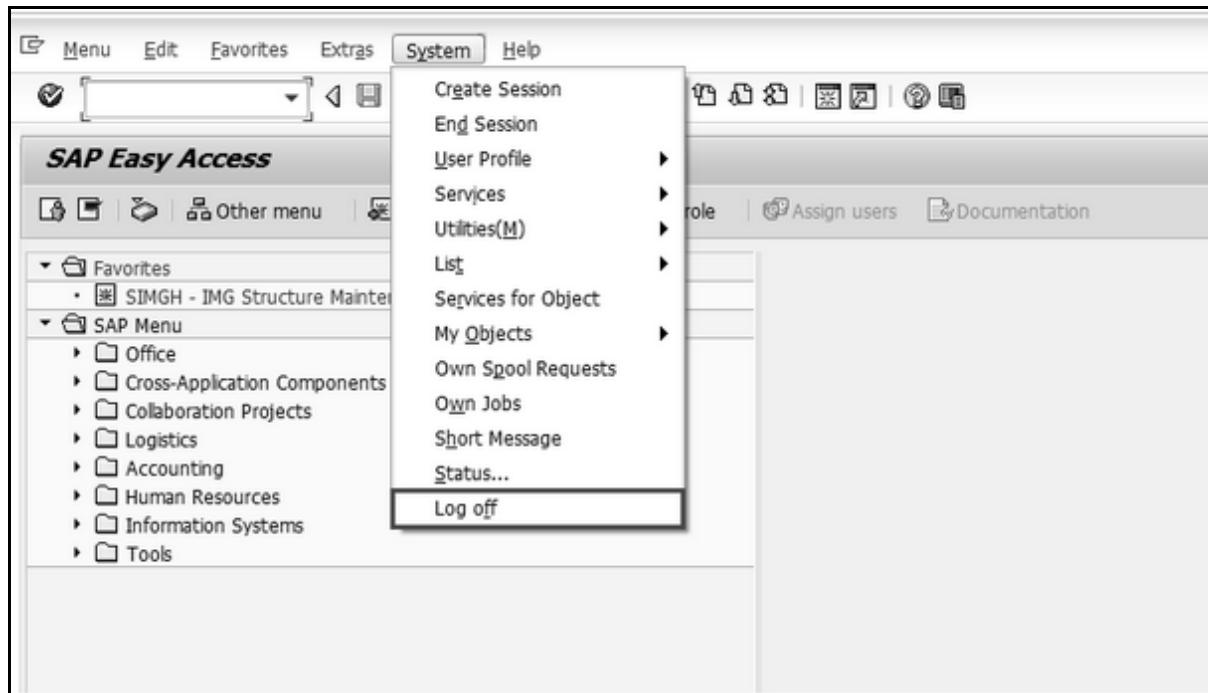
New Session Icon

For creating a new session, we use the following keys shown in the screenshot below:



Log Off

It is a good practice to log off from the SAP system when you finish your work. There are several ways to log off from the system, but it can be done using the following instructions as shown in the screenshot below:



3. PROCUREMENT PROCESS

Every organization acquires material or services to complete its business needs. The process of buying materials and obtaining services from vendors or dealers is called procurement. Procurement should be done in such a way that materials are ordered in correct quantity, with a proper value at the proper time. It is subdivided into following parts:

- Basic Procurement
- Special Procurement

Basic Procurement

Basic procurement is a process of acquiring goods or services in the right quantity, at the right price, and at the right time. However it is critical to maintain a right balance between quantity, price, and time. Consider the following example:

- Organizations try and keep inventory levels at a minimum, due to the prices associated with high levels of inventory; at the same time, it can be detrimental to stop production due to shortage of raw materials.
- Getting the minimum price for a product or service is often necessary, however it is equally important to maintain a balance between the product availability, quality, and vendor (seller) relations.

Procurement Lifecycle

Procurement in most modern organizations follow some sequential steps which are described below:

Requirement and Information Gathering

Procurement process starts with gathering information about a product and its quantity. Then for the required products and services, it is necessary to look for suppliers who can satisfy the requirements.

Supplier Contact

After gathering the requirements, one looks for the suppliers who can fulfill those requirements. Based on that, quotation requests or information requests are sent to the suppliers or they are contacted directly.

Background Review

Once the supplier is known, the product/service quality is checked, and any necessities for services such as installation, warranty, and maintenance parameters are investigated. Some samples of the products can be obtained for quality examination.

Negotiation

Some negotiations with suppliers is made regarding the price, availability, and delivery schedule of the products/services. Thereafter, a contract is signed that is a binding legal document between the supplier and the ordering party. A contract will include all necessary information such as price and quantity of material, delivery date, etc.

Order Fulfillment

Ordered material is shipped, delivered to the ordering party, and the supplier is paid accordingly. Training and installation of product or services may also be included.

Consumption, Maintenance, and Disposal

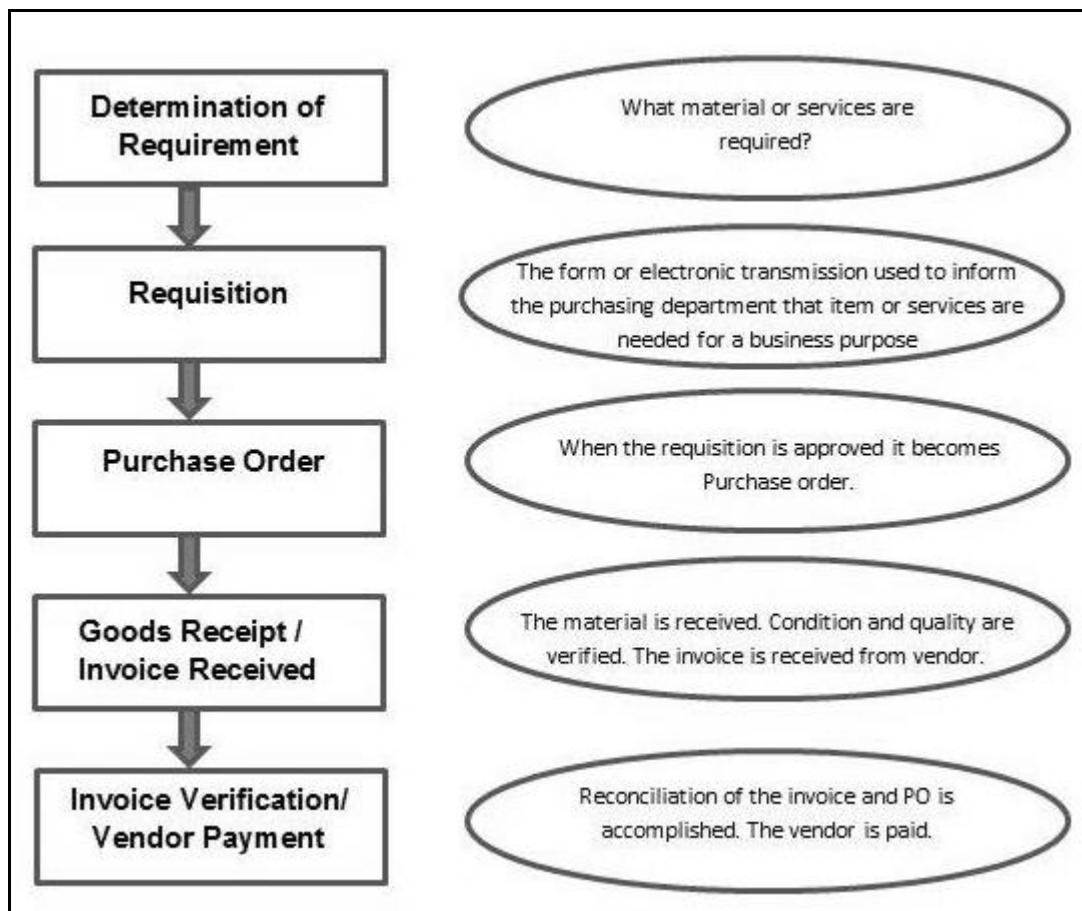
As the products/services are consumed, the performance of the products or services is evaluated and any follow-up service support, if required, is analyzed.

Contract Renewal

Once the products or services are consumed or the contract expires and needs to be renewed, or the product or service is to be re-ordered, the experience with the vendors and service providers is reviewed. If the products or services are to be re-ordered, the company decides whether to order from the previous supplier or think about new suppliers.

Basic Procurement Activities

The following figure illustrates the flow of basic procurement activities:



A brief introduction of the procurement activities is given below:

Procurement Activities	Description
Determination of requirement	It is the logical subdivision where it is determined what material or services are required, and which supplier can fulfill the requirements.
Creating purchase requisition	It is the phase in which the purchasing department is informed about the requirement of items or services. A requisition is an internal document.
Creating purchase order	It is the phase when an order is created from requisition and it is approved and assigned to a supplier.
	It is the phase in which the material is received by the company and its

Goods receipt/ Invoice received	condition and quality are being inspected. In this phase, an invoice is received from the vendor (seller).
Invoice verification/Vendor Payment	It is the phase in which the vendor (seller) is paid from the company and reconciliation of the invoice and PO is accomplished.

Type of Basic Procurement

There are two types of basic procurement:

- Procurement for Stock vs Consumption
- External vs Internal Procurement

Procurement for Stock vs Consumption

The following points show the difference between Procurement for Stock vs. Consumption:

- **Procurement for Stock** - A stock material is a material that is kept in stock. These materials are kept in stock once received from the vendor. The stock of this material keeps on increasing or decreasing based on the amount of quantity received or issued. To order a material for stock, the material **must** have a master record within the system.
- **Procurement for Direct Consumption** - When the procurement is for direct consumption, i.e., it will be consumed as soon as it is received, the user should specify the consumption purpose. To order a material for consumption, the material **may** have a master record within the system.

External vs Internal Procurement

The following points show the difference between External vs Internal Procurement:

- **External procurement** - It is the process of procuring goods or services from external vendors. There are three basic forms of external procurement generally supported by the purchasing component of the IT system.
 - **One-time orders** are generally used for material and services that are ordered irregularly.
 - **Longer-term contracts with subsequent issue of release orders** - For materials that are being ordered regularly and in large quantities, we can negotiate a deal with the vendor (seller) for pricing or conditions

and record them in a contract. In a contract, you also specify the validity date.

- **Longer-term scheduling agreements and delivery schedules** - If a material is ordered on an everyday basis and is to be delivered according to an exact time schedule, then you set up a scheduling agreement.
- **Internal Procurement** - Large corporate organizations may own multiple separate businesses or companies. Internal procurement is a process of getting material and services from identical companies. So, each of these companies maintain a complete bookkeeping system with separate Balance, Profit and Loss Statements, so that when any trade occurs between them, it will be recorded.

Special Procurement

Special stocks are the stocks that are managed differently, as these stocks do not belong to the company. Special stocks are kept at some particular location. Special procurement and special stock types are divided into the following categories:

Consignment Stocks

Consignment stocks are those material that is available at our store premises, however it still belongs to the vendor (seller) of the material. If you utilize the material from consignment stocks, then you have to pay to the vendor.

Third-party Processing

In third-party processing, a company passes on a sales order to the associate external vendor (seller) who sends the goods directly to the customer. The sales order is not processed by the company, but by the vendor (seller). Third-party items can be entered in purchase requisitions, purchase orders, and sales orders.

Pipeline Handling

In pipeline handling, the company need not order or store the material involved. It is obtainable as and when required via a pipeline (for example, oil or water), or another style of cable (such as electricity). The material that is consumed is settled with the vendor (seller) on a regular basis.

Returnable Transport Stock

The company orders goods from a vendor (seller). The goods are delivered with returnable transport packaging (pallets, containers) that belongs to the vendor

(seller) and is stored at the customer premises until they return it to the company.

Subcontracting

The vendor (the subcontractor) receives components from the ordering party with the help of which it produces a product. The product is ordered by your company through a purchase order. The components required by the vendor (seller) to manufacture the ordered product are listed in the purchase order and provided to the subcontractor.

Stock Transfer Using Stock Transport Order

Goods are procured and supplied within a company. One plant orders the goods internally from another plant (receiving plant/issuing plant). The goods are procured with a special type of purchase order – the stock transport order. You'll be able to request and monitor the transfer of goods with a stock transport order.

4. ORGANIZATION STRUCTURE

Organization structure is the framework of a company according to which business is conducted in every company. Organization structure consists of many levels having direct or indirect relationship with one another. Organization structure is also referred as enterprise structure. Enterprise structure is made up of many organizational units having relationship with one another.

SAP Implementation Guide

When a client purchases SAP, it comes in a CD in the form of a software. When SAP is first installed, it has its standard setup that needs to be configured according to the needs of the client, i.e., organization.

Configuration of SAP is done with the help of an implementation guide, known as IMG. It is used to add fields, to change field names, to modify dropdown lists, etc. to adjust according to the functionality of an organization. IMG is where we define the enterprise structure and other settings that are required for the functioning of SAP according to the requirements of an organization.

SAP IMG Path

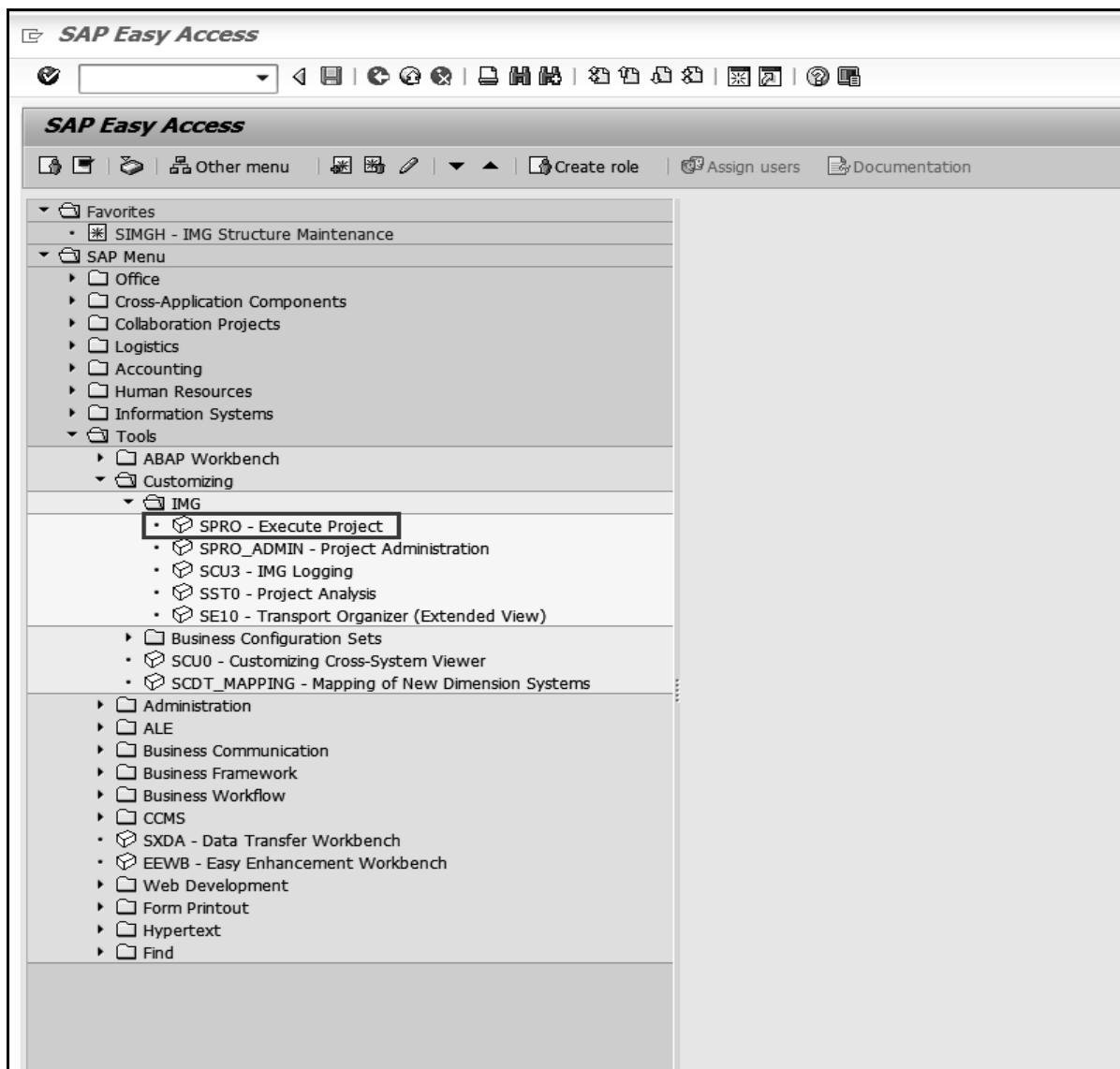
To perform any type of configuration according to the requirements of an organization, the first step is to reach the implementation guide (IMG) screen. We can reach the implementation guide in two ways:

- Menu path
- Transactional code

Menu Path

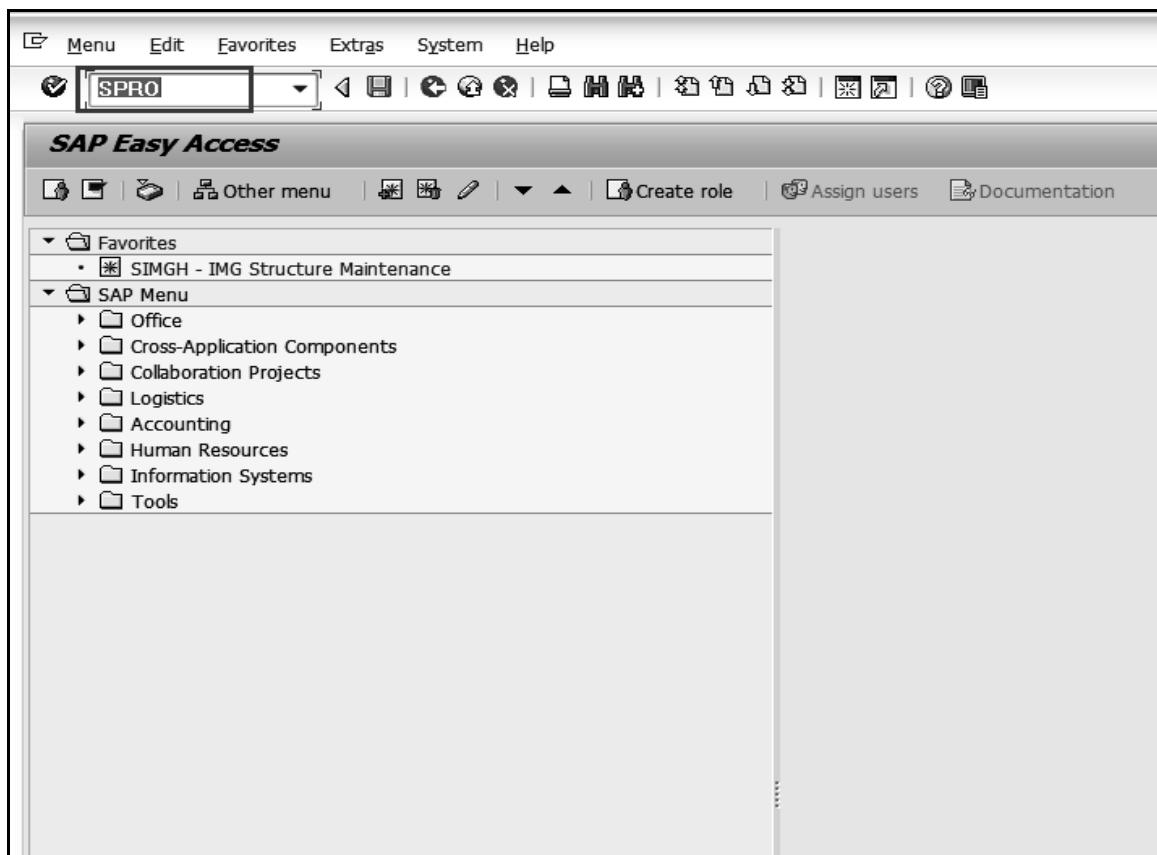
We can navigate through the following path to reach out to IMG:

SAP Easy Access => Tools => Customizing => IMG => Execute Project



Transactional Code

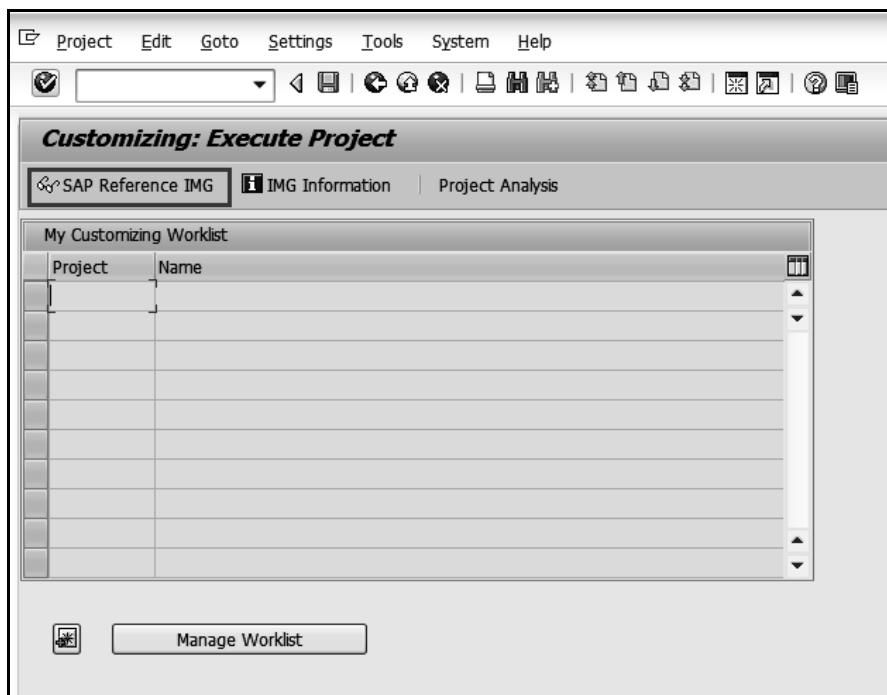
The best and simple way to reach out any SAP screen is the TCode, i.e., transactional code. Transactional code is used to reach out to IMG: SPRO (SAP Project Reference Object). Enter the transaction code in the command field and then click on enter.



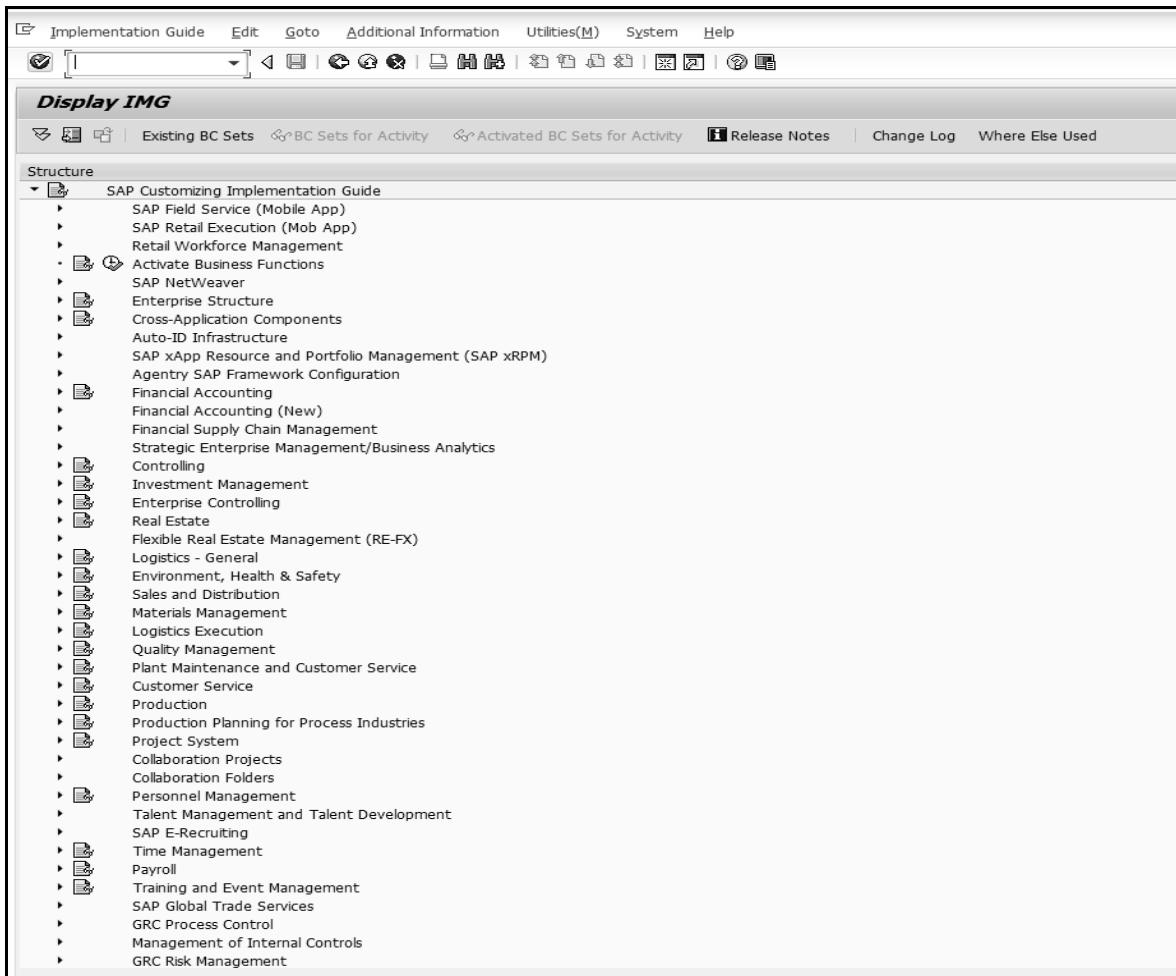
SAP IMG

IMG screen can be reached out just by following the steps given below:

After SPRO, on the next screen, click on SAP Reference IMG.



The next screen will appear as follows. This is the final screen from where we can do configurations.



Menu path for MM Configuration

The main menu paths for MM area are as follows:

- SAP Customizing Implementation Guide (IMG) => Enterprise Structure => Definition
- SAP Customizing Implementation Guide (IMG) => Enterprise Structure => Assignment
- SAP Customizing Implementation Guide (IMG) => Logistics => General => Material Master
- SAP Customizing Implementation Guide (IMG) => Materials Management

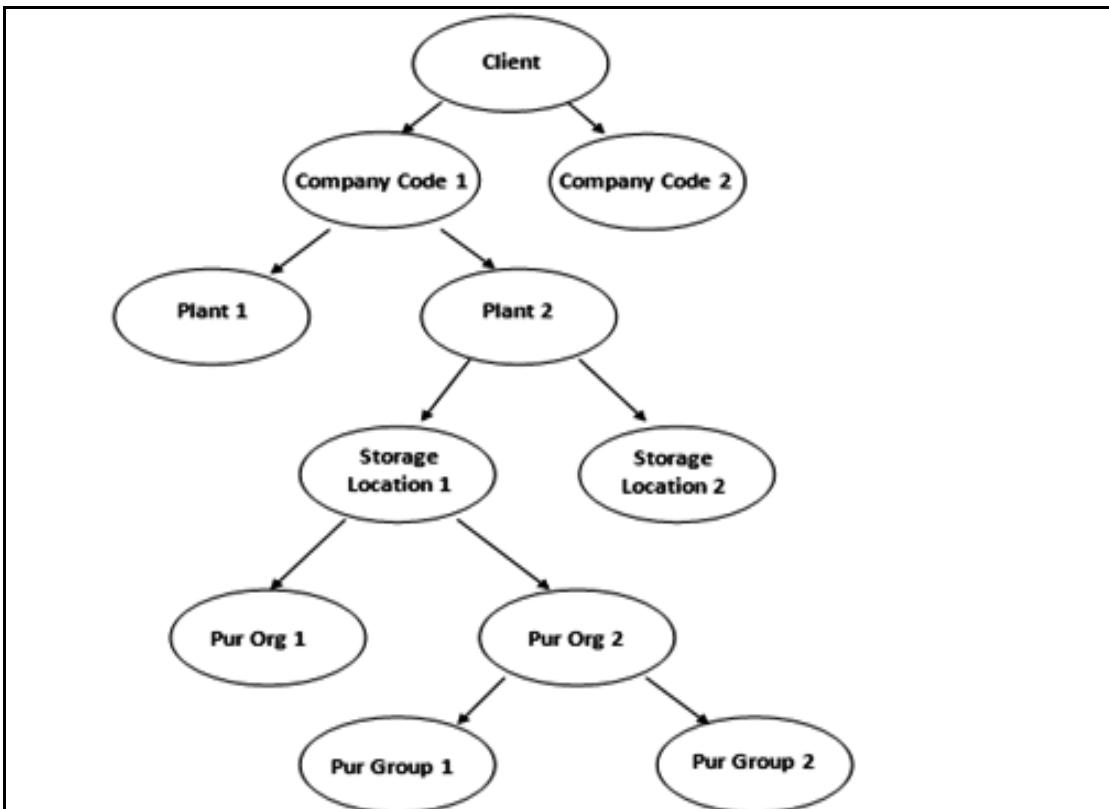
5. ENTERPRISE STRUCTURE

Every organization has some framework or structure according to which the whole business runs. An enterprise structure is the structure that represents an enterprise in the SAP ERP system. It is subdivided into various organizational units which, for legal reasons or business-related reasons, are grouped together.

An enterprise structure defines various levels in an organization. These levels are placed according to some hierarchy. Each level has some specific functionality associated with it, which in a combined way describes the working of an organization. In addition, an enterprise structure defines various organizational units that are present in an enterprise. The organizational structure in MM consists of the following organizational levels:

- Client
- Company Code
- Plant
- Storage Location
- Purchasing Organization
- Purchasing Group

The following diagram depicts one such organizational structure that describes the levels incorporated in an organization. It puts the client at the topmost, followed by multiple company code, followed by multiple plants, plants having multiple storage location with their own or centralized purchasing organizations.



In the following sections, we will look into each of the units that constitute an enterprise structure.

Client

A client has the following attributes:

- Client is a commercial organizational unit in R/3 system.
- It has its own set of master data with independent table sets.
- According to hierarchy, a client occupies the highest level in a SAP system.
- Data that is maintained at the client level is valid for all organizational levels.

Company Code

A company code has the following attributes:

- Within client, a company code is an independent accounting unit.
- It is a legal entity that has its own profit, loss and balance statement.
- It is the smallest unit in an organization for which a complete independent account set can be replicated.

Plant

The basic points to be noted about a plant are as follows:

- Plant is an organizational unit within a company where activities take place. A plant will produce goods and make goods available for the company.
- It is a unit having manufacturing facility, warehouse distribution center, or a regional sales office within logistic. It subdivides an enterprise in different aspects.

Storage Location

A storage location has the following attributes:

- Storage location is an organizational unit, which actually differentiates between different material stocks in a plant.
- Storage location is a place where stock is kept physically.
- A plant can consist of multiple storage locations. All data is stored at storage location level for a particular storage location.

Purchasing Organization

The points to be noted about a Purchasing Organization are as follows:

- A purchasing organization is an organizational unit under a company or a plant that is responsible for the procurement activities according to requirements. It is responsible for external procurement.
- A purchasing organization can be at the client level, which is known as a centralized purchasing organization.
- A purchasing organization can also be at the company or plant level, which is known as company-specific or plant-specific purchasing organization.

Different forms of purchasing can be described as follows:

Centralized Purchasing

Purchasing organization is not assigned to any company code. It procures for all company codes belonging to different client.

Company-Specific Purchasing

Purchasing organization is assigned to a company code only. The plant belonging to the company code can purchase through this purchasing organization.

Plant-Specific Purchasing

Purchasing organization is assigned to a plant. Only this specific plant can purchase through this purchasing organization.

Purchasing Group

The attributes of a purchasing group are as follows:

- Purchasing group is an organizational unit responsible for the everyday procurement activities within an organization.
- It is a buyer or a group of buyers responsible for the procurement activities in a purchasing organization.

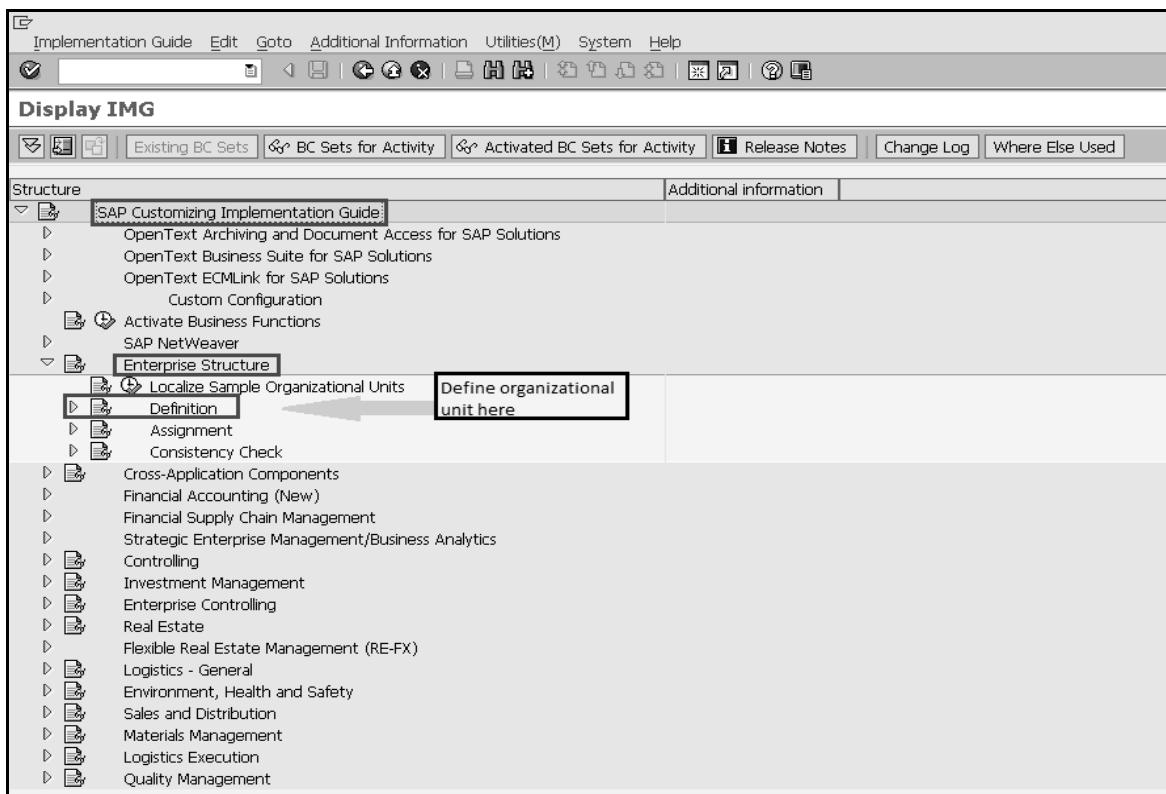
6. DEFINING ORGANIZATIONAL STRUCTURE

An organization structure can be defined as the framework of a company that describes the entire structure and functioning of the company. Organization structures are split into different levels and each level is placed according to a hierarchy. These levels have direct or indirect relationship with one another. The various levels in a standard organization are as follows:

- Company
- Company code
- Plant
- Storage location
- Purchasing organization
- Purchasing group

All the Definitions in SAP are given through the Display IMG screen as shown below:

Path to reach Definition: IMG => Enterprise Structure => Definition



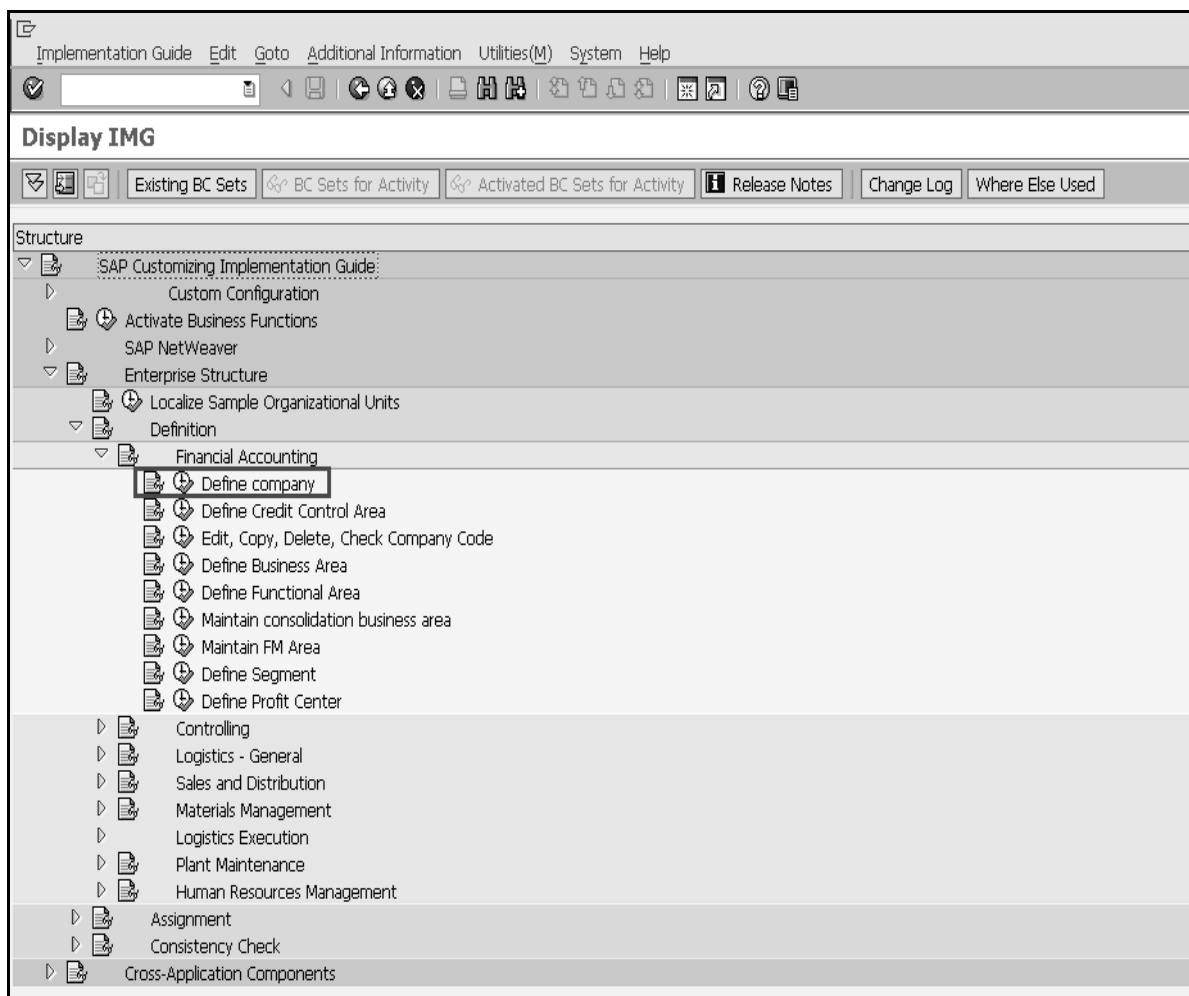
Create Company

Company is the topmost organizational unit after client, which incorporates individual financial accounting statements of several company codes. A company can have many company codes. In SAP, it is optional to create a company. The following steps will take you through the procedure of creating company.

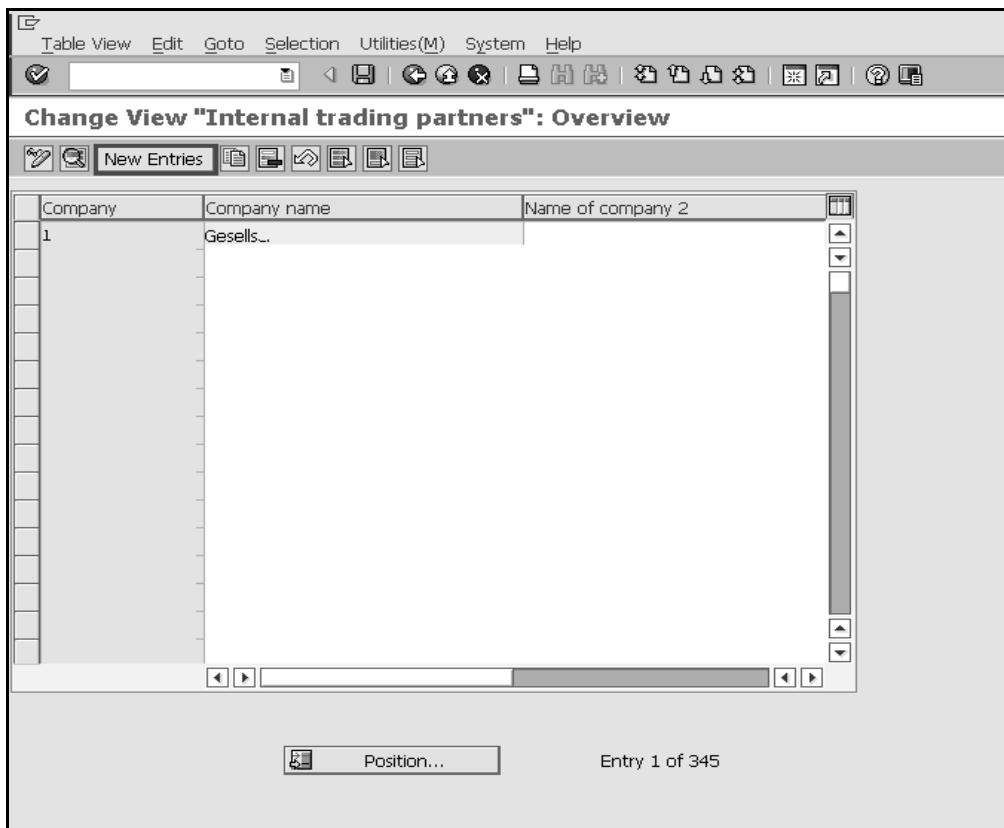
Path to Create Company:

IMG => Enterprise Structure=> Definition=> Financial Accounting=> Define Company
TCode: OX15

Step 1: On the Display IMG screen, select Define Company execute icon by following the above path.



Step 2: Click the New Entries icon.



Step 3: Fill in all the necessary details such as name of the company, address of the company with street number, city, country, and postal code.

Company	<input type="text"/>
Company name	<input type="text"/>
Name of company 2	<input type="text"/>
Detailed information	
Street	<input type="text"/>
PO Box	<input type="text"/>
Postal code	<input type="text"/>
City	<input type="text"/>
Country	<input type="text"/>
Language Key	<input type="text"/>
Currency	<input type="text"/>

Step 4: Click the Save icon after filling the required information. A new company will be created.

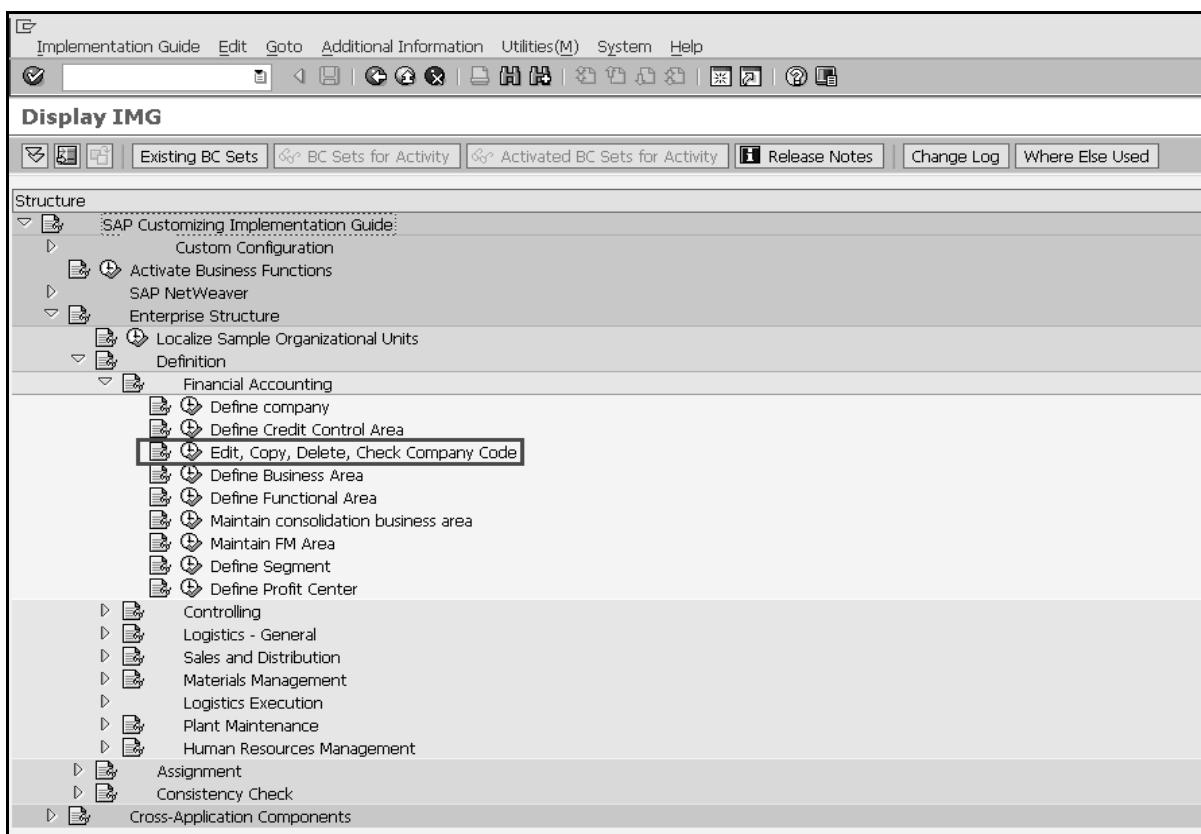
Create Company Code

A Company Code is the smallest organizational unit after company, for which the standalone financial accounting's profit and loss statements can be withdrawn. Many company codes can be assigned to one company. The following steps depict how to create a company code.

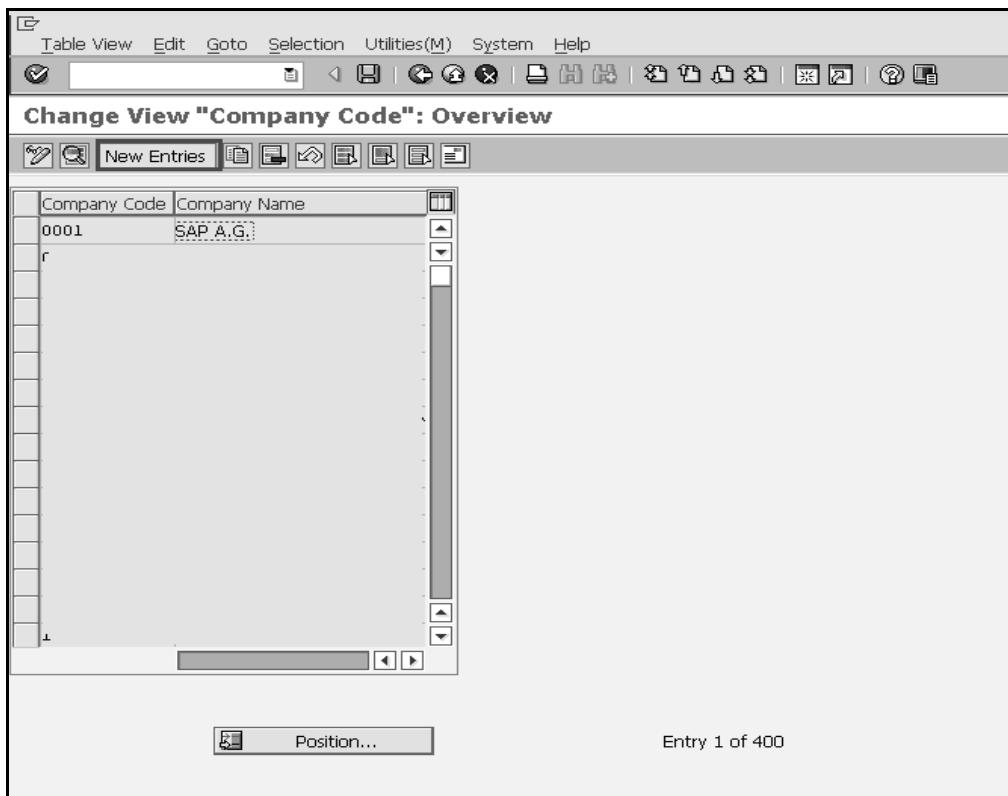
Path to create Company Code:

IMG => Enterprise Structure=> Definition=> Financial Accounting=> Edit, Copy, Delete, Check Company Code
TCode: OX02

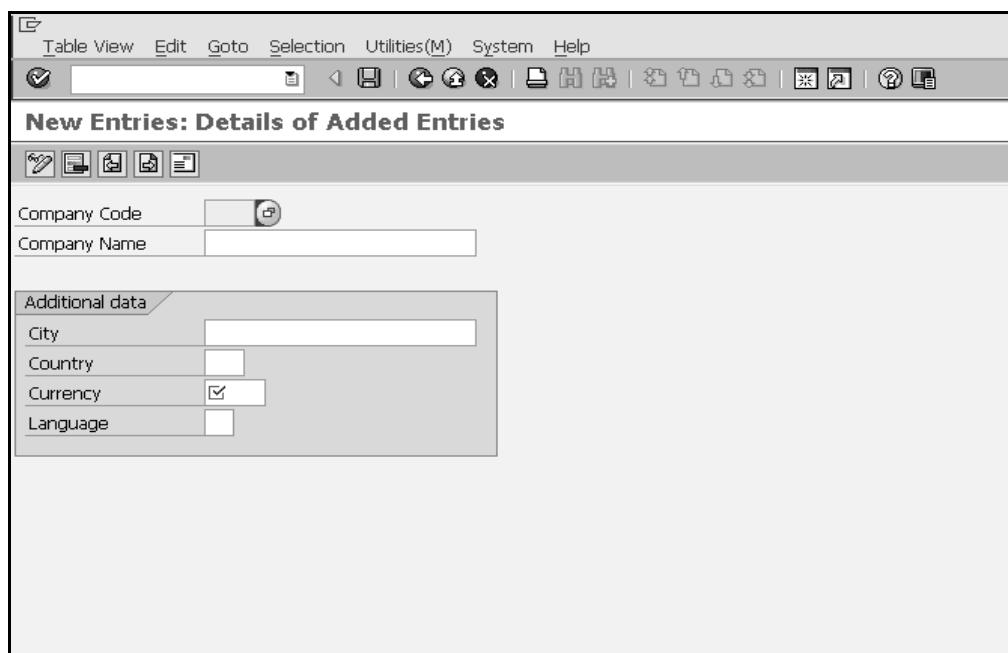
Step 1: On the Display IMG screen, select Edit, Copy, Delete, Check Company Code execute icon, by following the above path.



Step 2: Click the New Entries button.



Step 3: Fill in all the necessary details like Company code, company name along with city, country, currency, language.



Step 4: Click the Save icon after filling the required information. A new company code will be created.

Create Plant

A Plant is an organizational unit within a company where activities take place. A plant will produce goods and make goods available for the company. The following steps will take you through the procedure of creating a plant:

Path to create Plant:

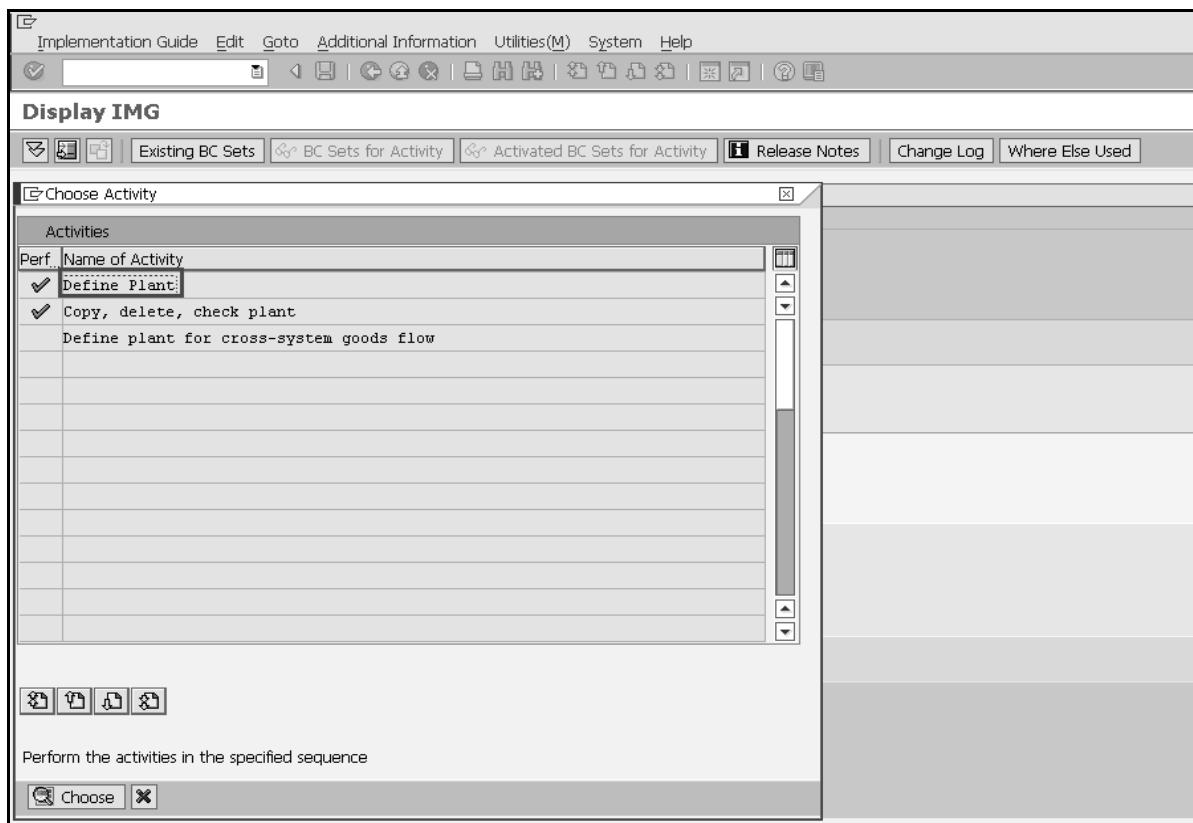
IMG => Enterprise Structure=> Definition=> Logistic General=>Define, Copy,

Delete check plant

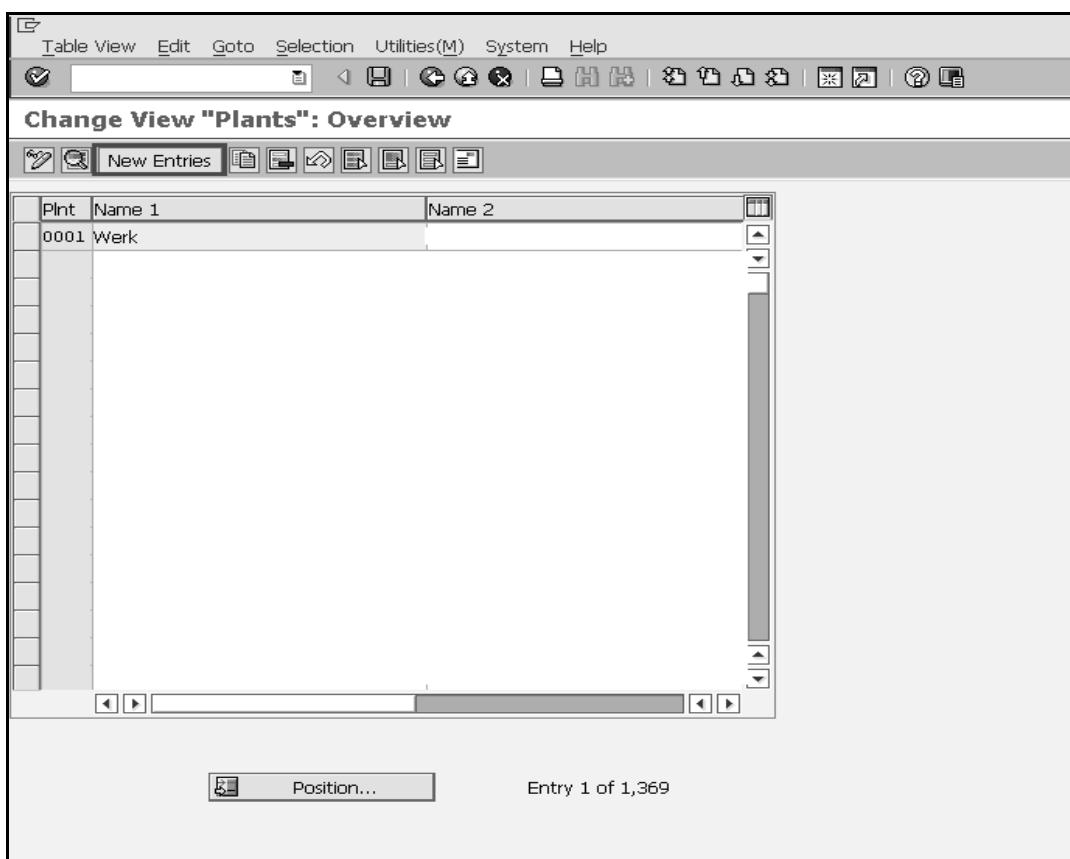
TCode: OX10

Step 1: On the Display IMG screen, select Define, Copy, Delete check plant execute icon, by following the above path.

Select Define Plant icon to create a new plant.



Step 2: Click the New Entries icon.



Step 3: Fill in all necessary details like plant name along with detailed information like Language, House no., city, country, region, postal code.

New Entries: Details of Added Entries

Plant

Name 1

Name 2

Detailed information

Language Key	<input type="checkbox"/>
House number/street	<input type="text"/>
PO Box	<input type="text"/>
Postal Code	<input type="text"/>
City	<input type="text"/>
Country Key	<input type="checkbox"/>
Region	<input type="checkbox"/>
County code	<input type="checkbox"/>
City code	<input type="checkbox"/>
Tax Jurisdiction	<input type="text"/>
Factory calendar	<input type="checkbox"/>

Note: The address fields Name1 and Name2 are not copied from the address screen and you must maintain them separately.
All other addr. data can only be maintained in addr. screen.
The changes can only be seen in the overview and detail view after they have been saved.

Step 4: Click the Save icon after filling the required information. A new plant will be created.

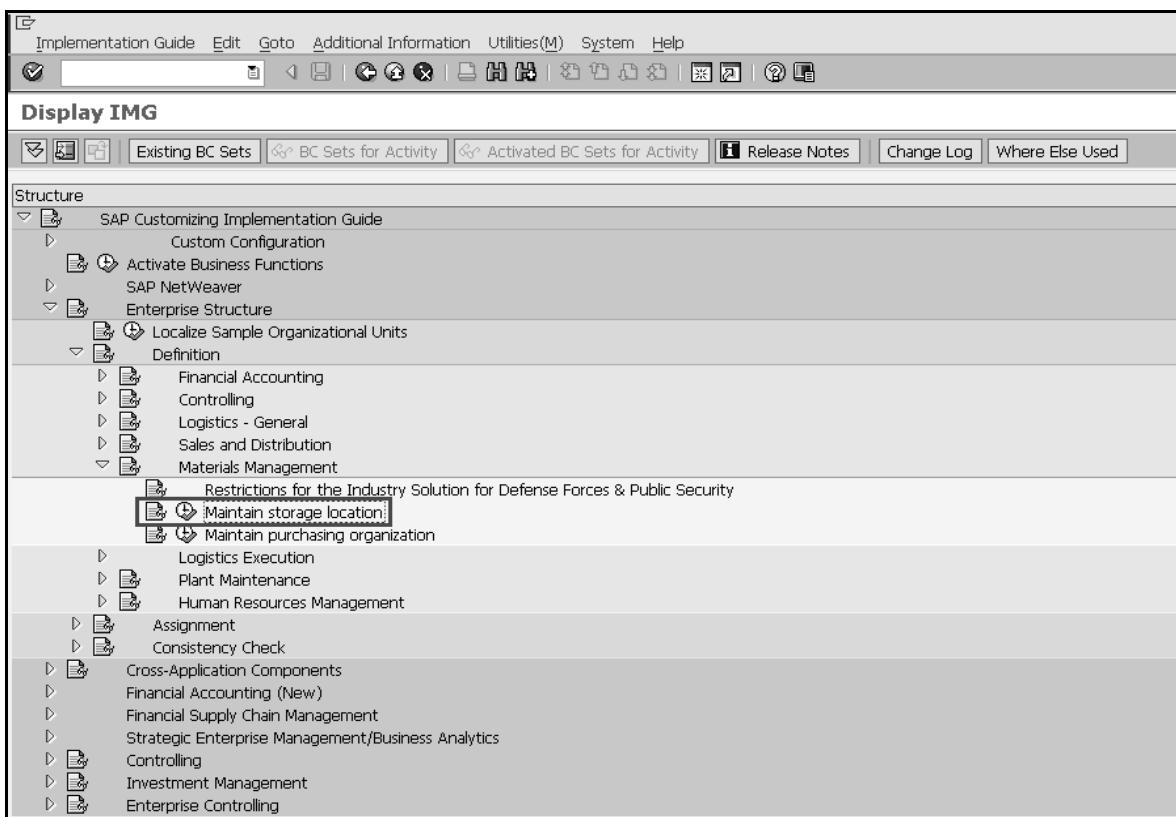
Create Storage Location

A Storage Location is an organizational unit, which actually differentiates between the different material stocks in a Plant. Storage location is a place where stock is kept physically. A plant can consist of multiple storage locations. All data is stored at a storage location level for a particular storage location. Follow the steps given below to create a Storage Location:

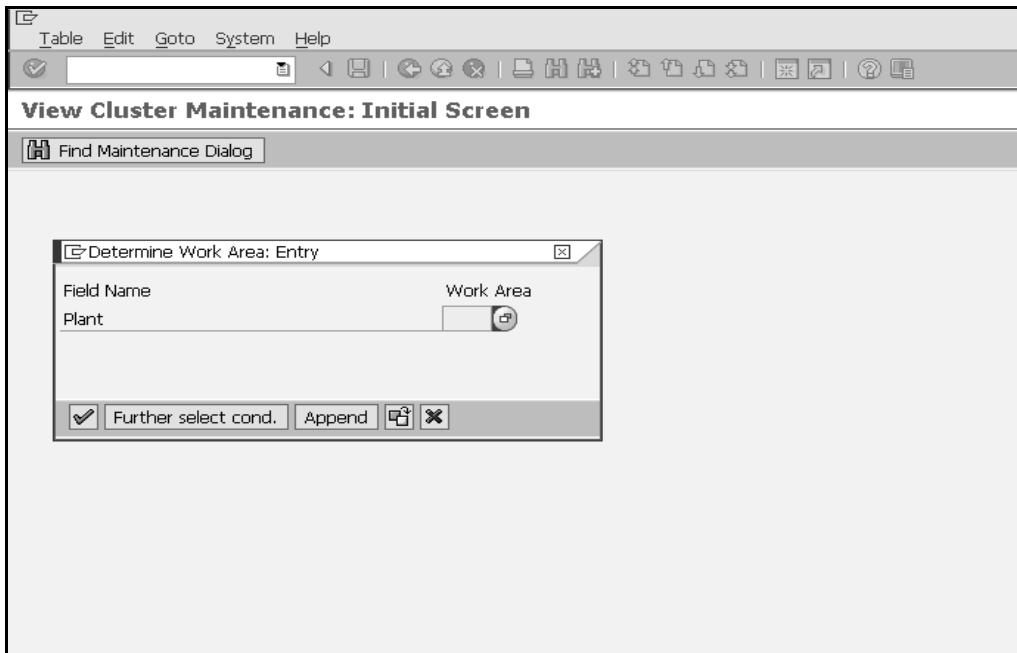
Path to Create Storage Location:

IMG => Enterprise Structure => Definition => Materials Management =>
Maintain Storage Location
TCode: OX09

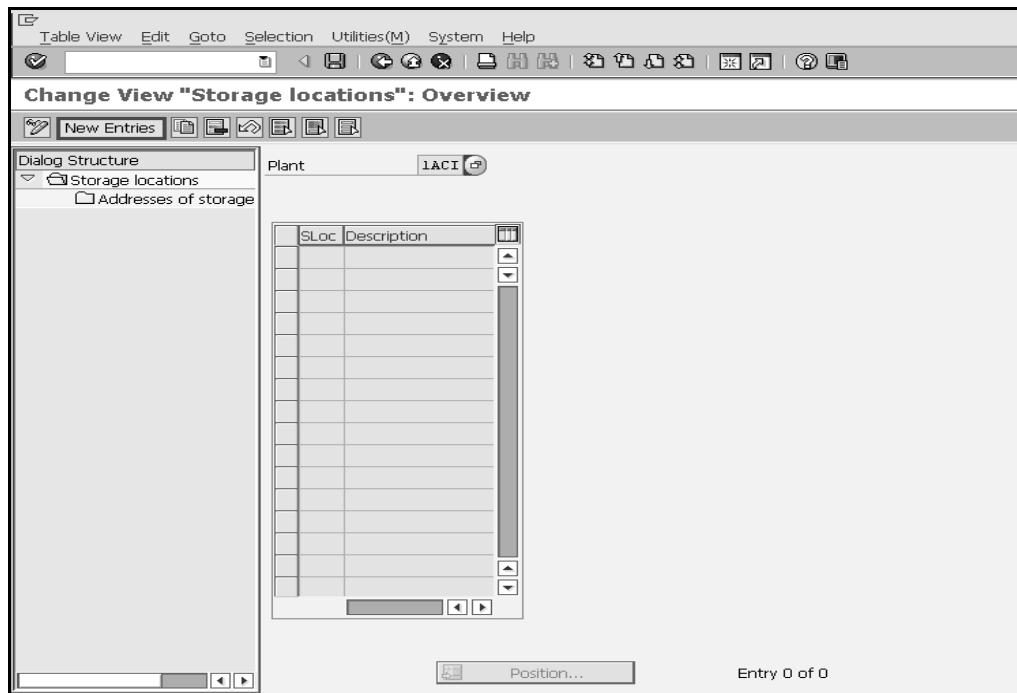
Step 1: On the Display IMG screen, select Maintain Storage Location execute icon, by following the above path.



Step 2: Enter the name of the plant for which you want to create the storage location.



Step 3: Click the New Entries icon.



Step 4: Enter the name of the storage location along with its description. Click the Save icon after filling the required information. A new Storage Location will be created.

Create Purchasing Organization

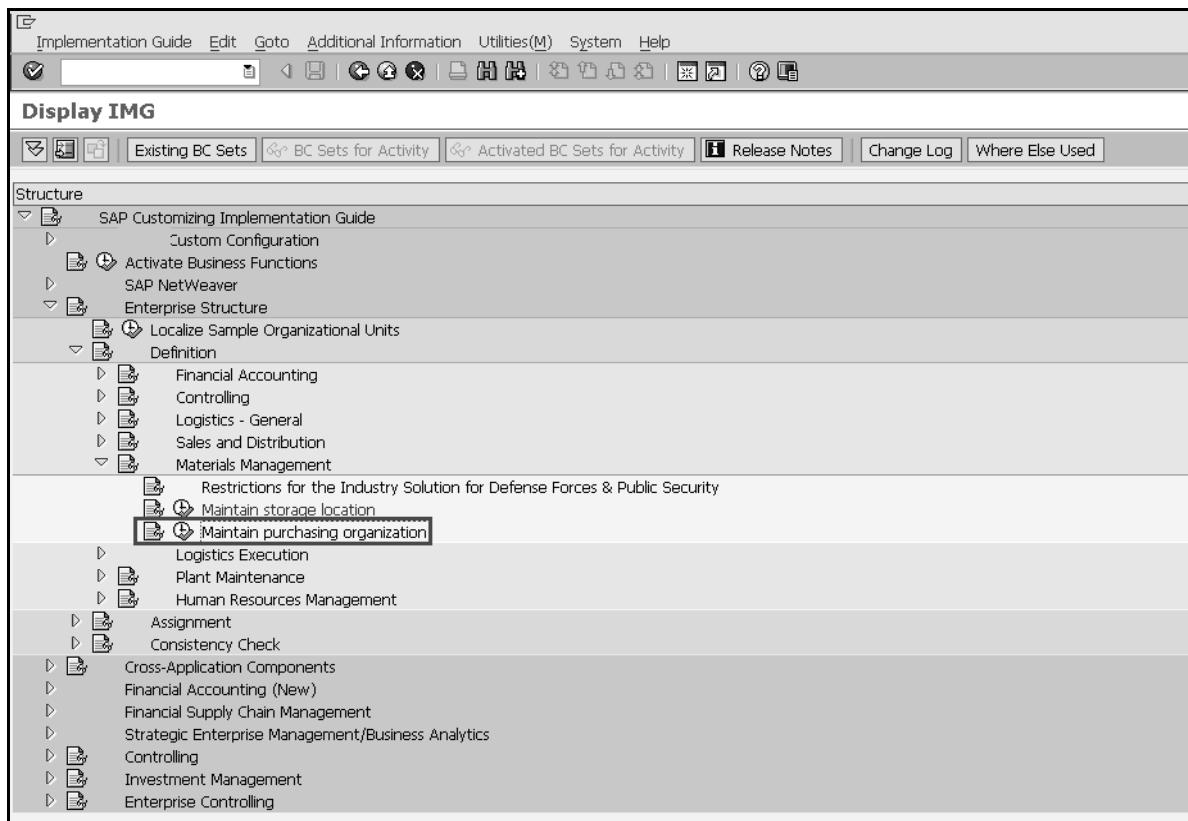
A Purchasing Organization is an organizational unit under Company or Plant that is responsible for procurement activities according to requirements. It is responsible for external procurement. A purchasing organization can be specific to a plant or a company. Following the steps given below to create a Purchasing Organization:

Path to Create Purchasing Organization:

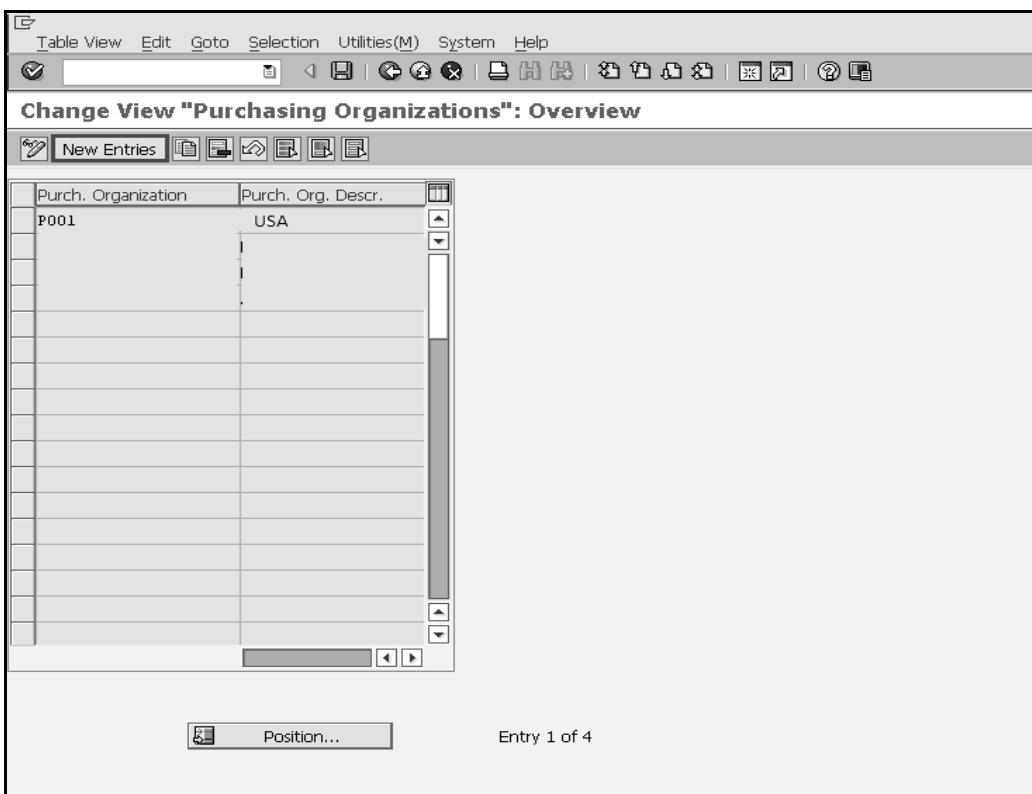
IMG => Enterprise Structure=> Definition=> Materials Management=> Maintain Purchasing Organization

TCode: OX08

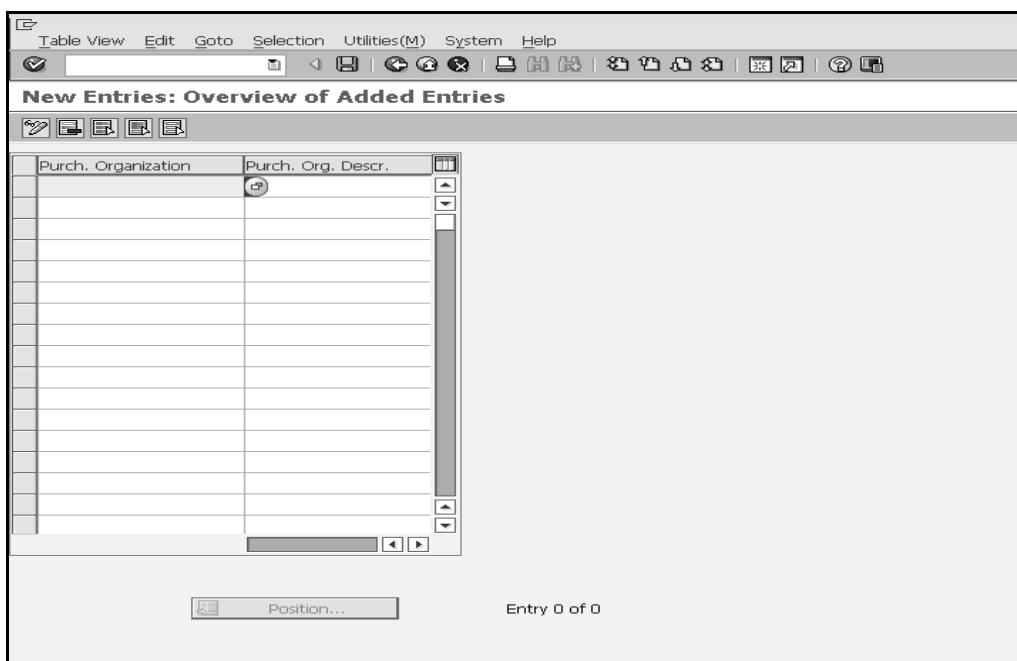
Step 1: On the Display IMG screen, select Maintain Purchasing Organization execute icon, by following the above path.



Step 2: Click the New Entries icon.



Step 3: Enter the name of the purchasing organization along with its description.



Step 4: Click the Save icon after filling the required information. A new Purchasing Organization will be created.

Create Purchasing Group

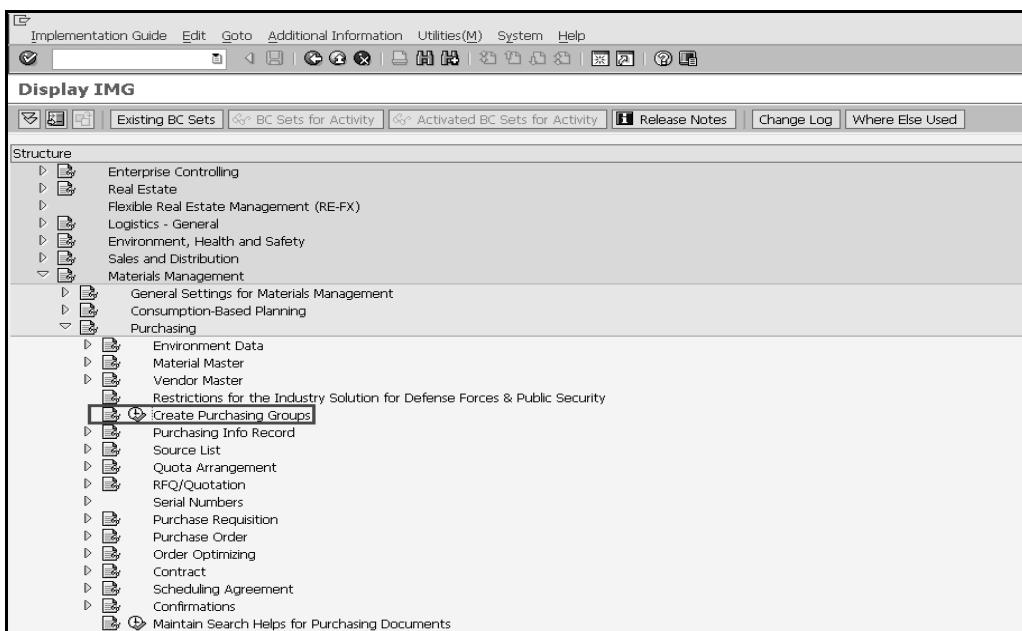
A Purchasing Group is an organizational unit that is responsible for the everyday procurement activities within an organization. The steps given below depict how to create a Purchasing Group:

Path to Create Purchasing Group:

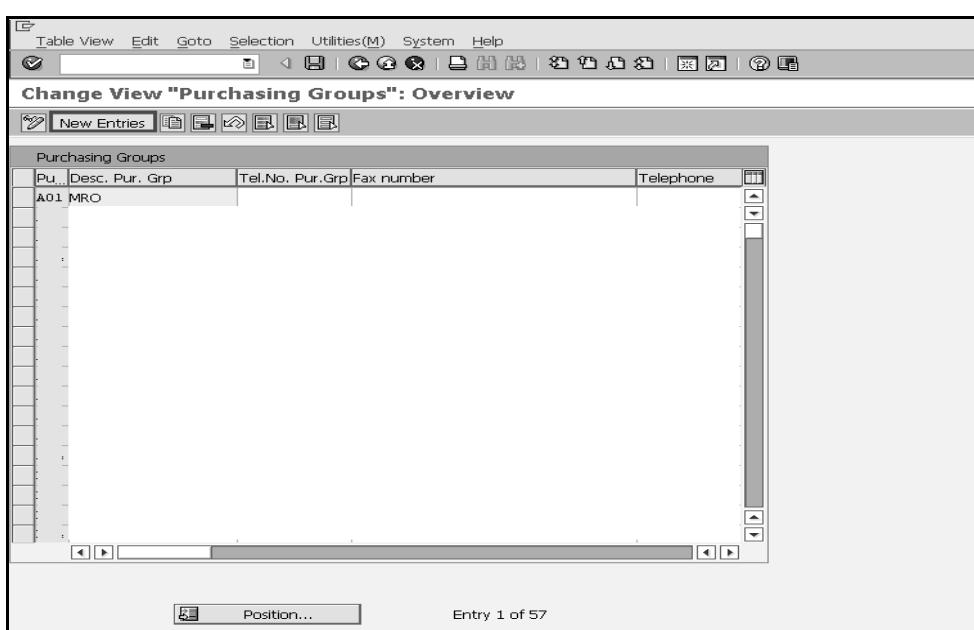
IMG => Materials Management => Purchasing => Create Purchasing Group

TCode: OME4

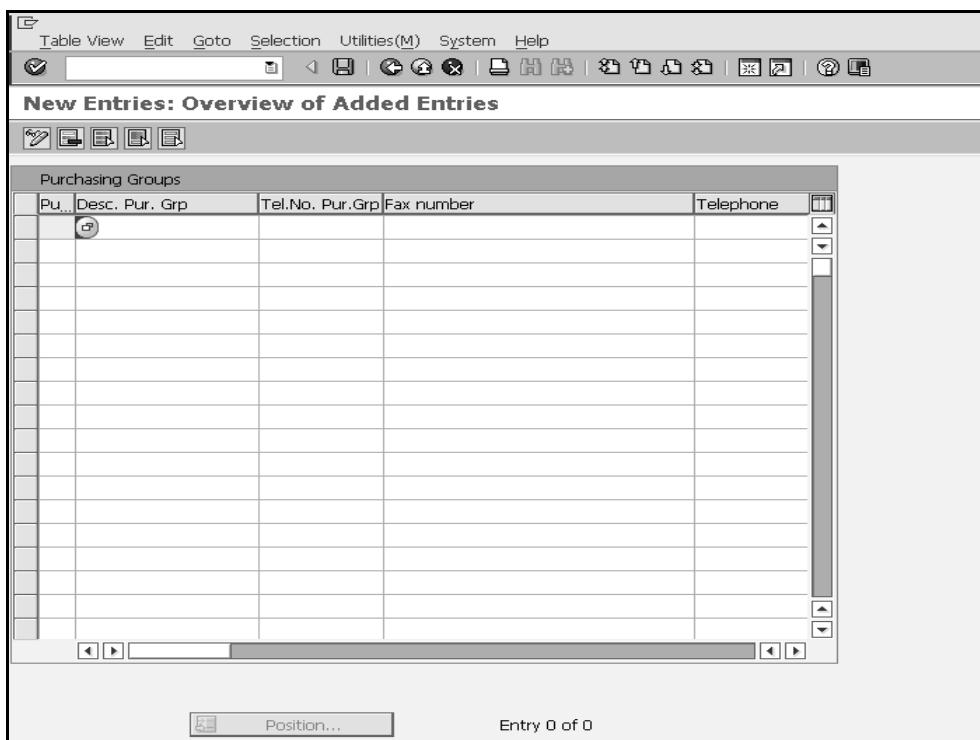
Step 1: On the Display IMG screen, select Maintain Purchasing Group execute icon, by following the above path.



Step 2: Click the New Entries icon.



Step 3: Enter the name of the purchasing group along with its description.



Step 4: Click the Save icon after filling the required information. A new Purchasing Group will be created.

7. ORGANIZATIONAL UNITS

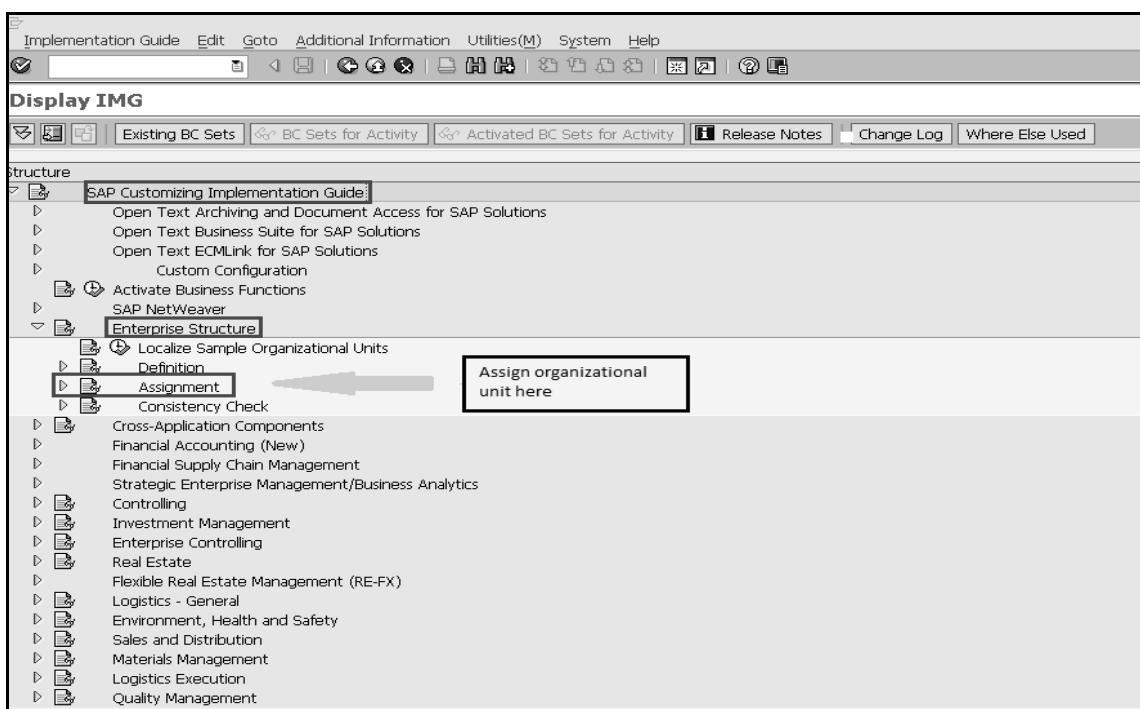
All the organizational units combined together form the framework of a company. These organizational units can be considered as different levels that describe the structure of an enterprise. Every level has a particular functionality associated with it. Also, every level in one or the other way is related to each other. These levels are placed according to some hierarchy, Company being at the top.

To establish a relationship between these levels, we have to assign them to one or other in such a way that they still lie in the same hierarchy. For example: As Company is at the top level and plant is below it, it is necessary that the plant has some relation with the company. As the plant is a sub-part or a smaller division of the company, it will be assigned to the company. A standard SAP has the following four basic and essential assignments:

- Plant to company code
- Purchasing organization to company code
- Purchasing organization to plant
- Standard purchasing organization to plant

All the assignments in SAP are done through the Display IMG screen, as shown in the following screenshot.

Path to Reach Assignment: IMG => Enterprise Structure => Assignment



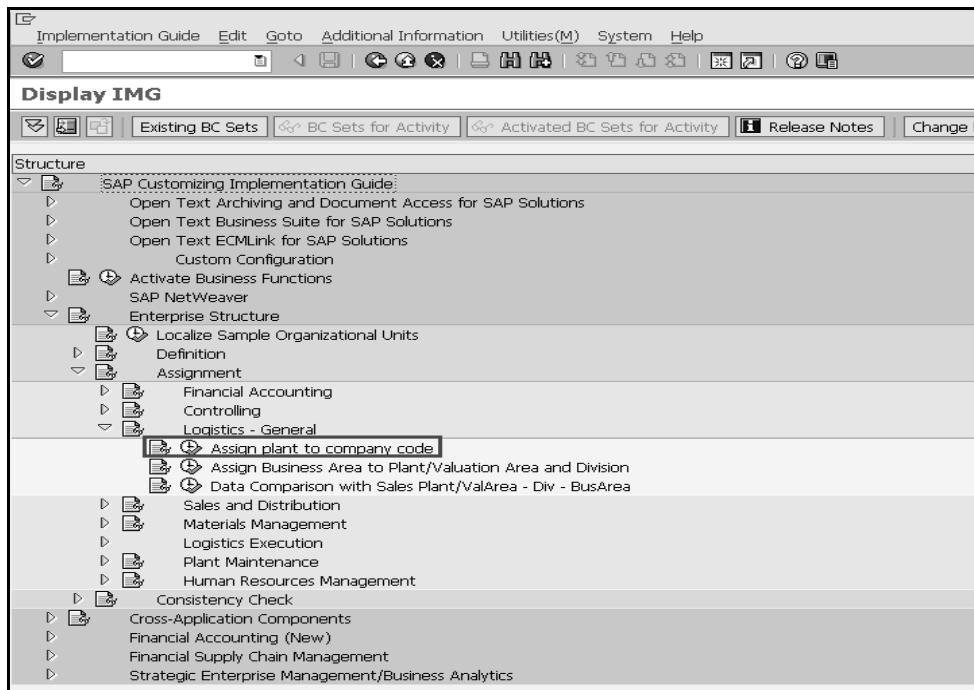
Plant to Company Code

Plant is one level below the company code. So, we need to assign a plant to a company code. Follow the steps given below to assign a plant to a company code:

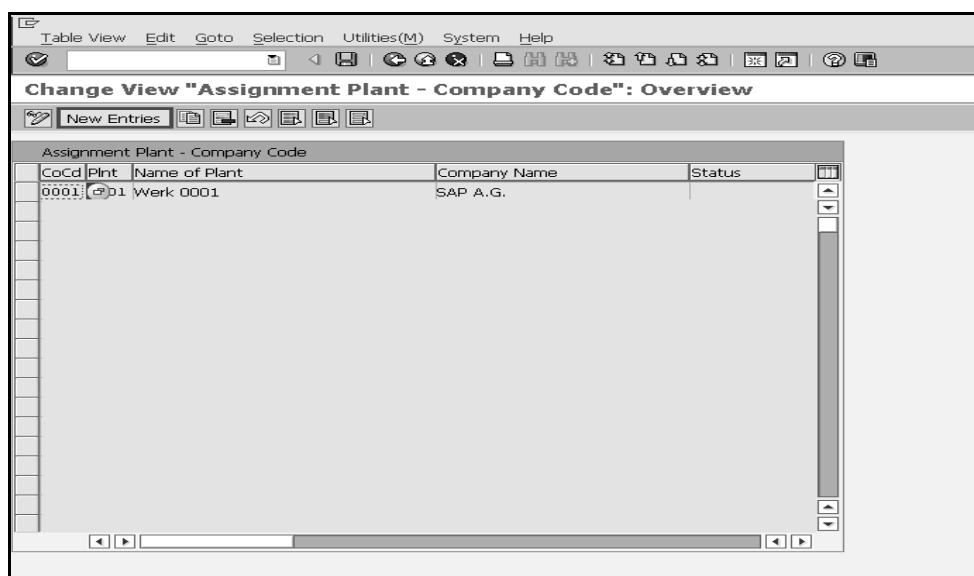
Path to assign plant to company code:

IMG => Enterprise Structure => Assignment => Assign plant to company code
TCode: OX18

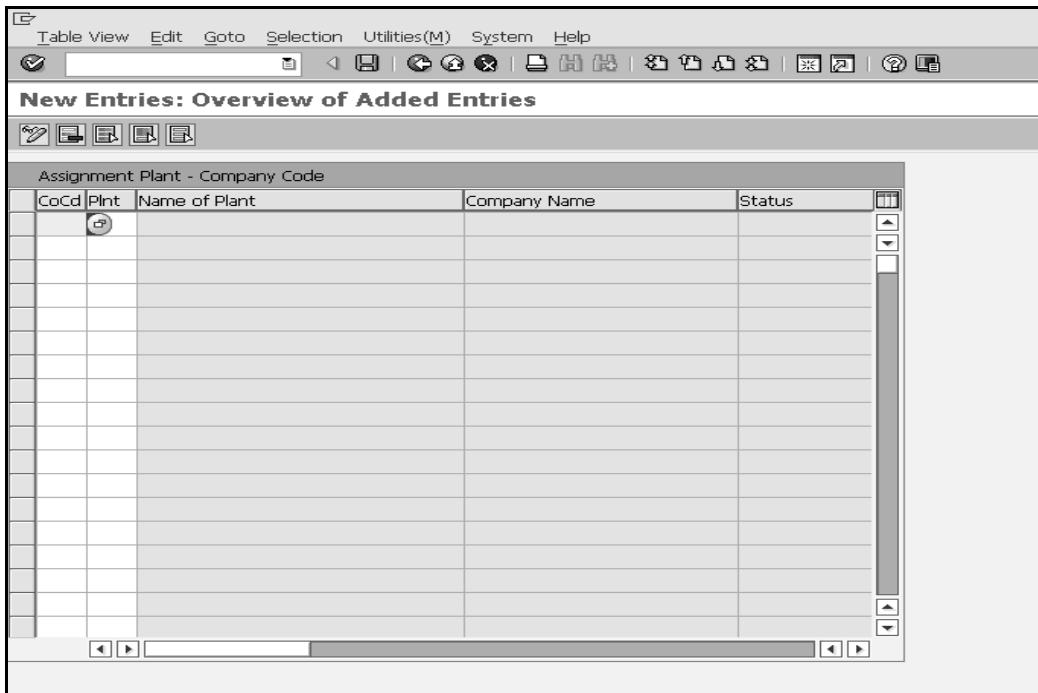
Step 1: On the Display IMG screen, select Assign plant to company code execute icon, by following the above path.



Step 2: Click the New Entries icon.



Step 3: Enter the name of the plant and company code. Click the Save button. Plant is now assigned to company code.



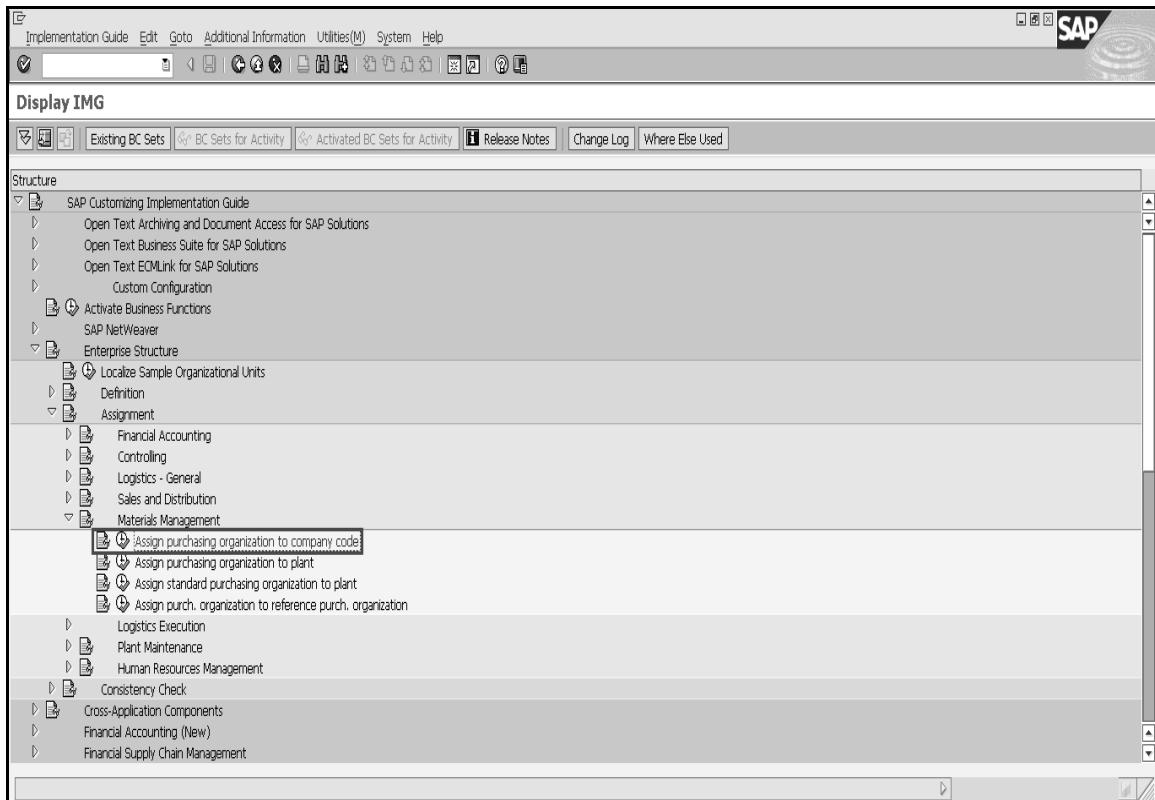
Purchasing Organization to Company Code

A purchasing organization can be set at company code level; it is called a centralized purchasing organization. So we need to assign this purchasing organization to the company code. The following steps take you through the procedure of assigning a purchasing organization to a company code:

Path to assign purchasing organization to company code:

IMG => Enterprise Structure => Assignment => Materials Management =>
Assign Purchasing Organization to Company Code
TCode: OX01

Step 1: On the Display IMG screen, select Assign Purchasing Organization to Company Code execute icon, by following the above path.



Step 2: We can view an existing assignment and can change it accordingly. Click the Save button after making changes. Purchasing organization is now assigned to the company code.

Assign Purchasing Organization -> Company Code				
POrg	Description	CoCd	Company Name	Status
P001	NORTH AMERICA			Company Code does

Purchasing Organization to Plant

A purchasing organization can be plant specific, i.e., it can be set at the plant level. In such cases, we need to assign the purchasing organization to a plant. Follow the steps given below to assign a purchasing organization to a plant:

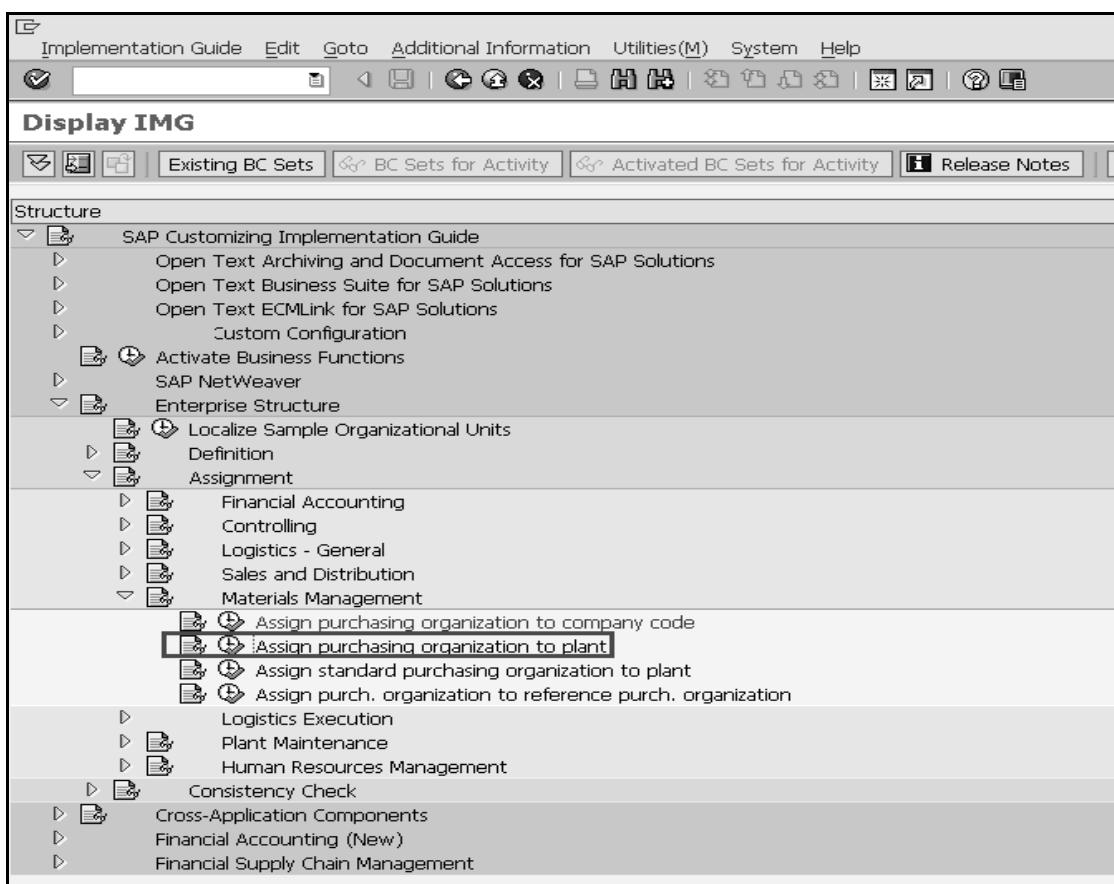
Path to assign purchasing organization to plant:

IMG => Enterprise Structure => Assignment => Materials Management =>

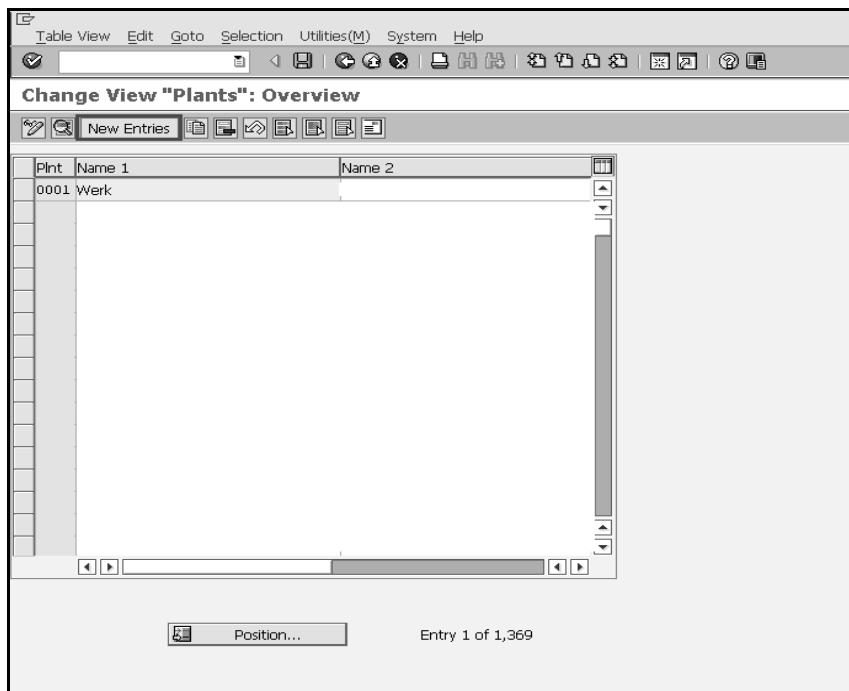
Assign Purchasing organization to Plant

TCode: OX17

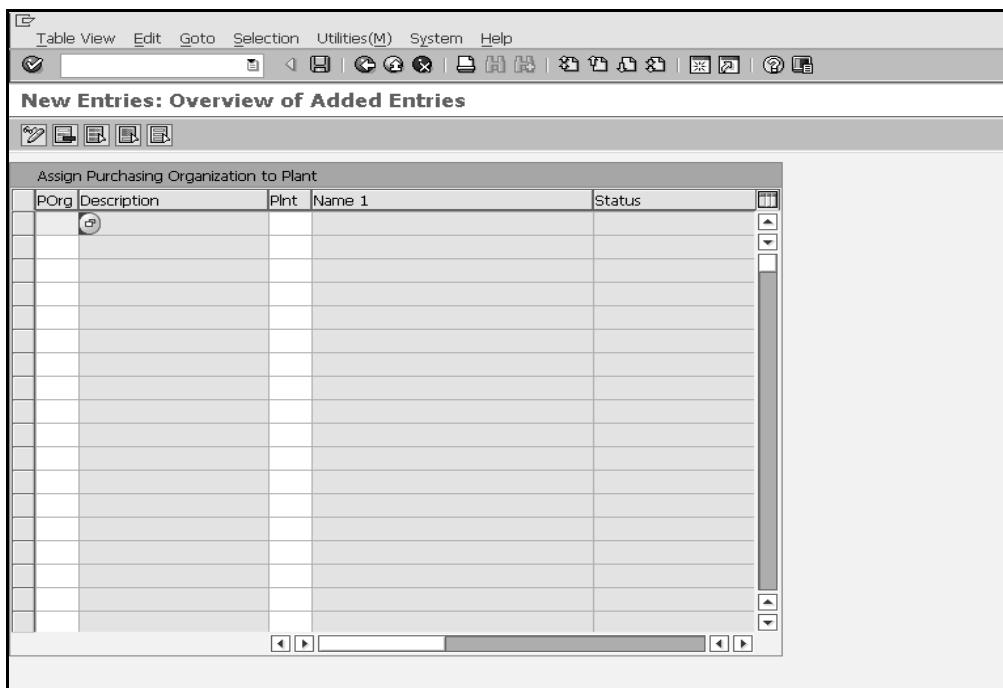
Step 1: On the Display IMG screen, select Assign Purchasing Organization to Plant, by following the above path.



Step 2: Click the New Entries button.



Step 3: Enter the name of the plant and the purchasing organization. Click the Save button. Purchasing organization is now assigned to plant.



Standard Purchasing Organization to Plant

Standard purchasing organization is the default purchasing organization. We can sometimes assign the standard purchasing organization to some specific plant if

we want to have the default purchasing organization for that plant. Follow the steps given below to assign the standard purchasing organization to a plant:

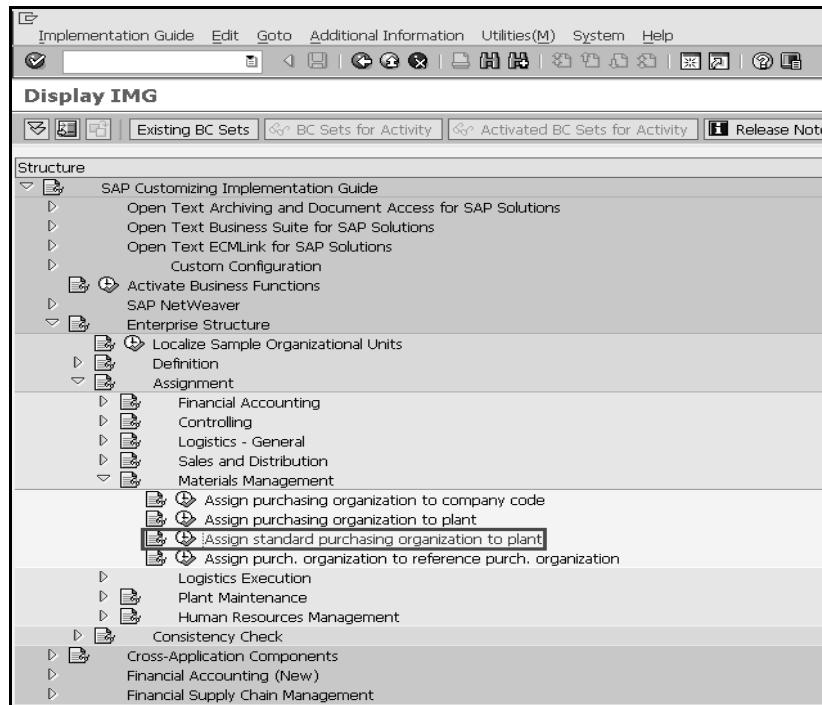
Path to assign standard purchasing organization to plant:

IMG => Enterprise Structure => Assignment => Materials Management =>

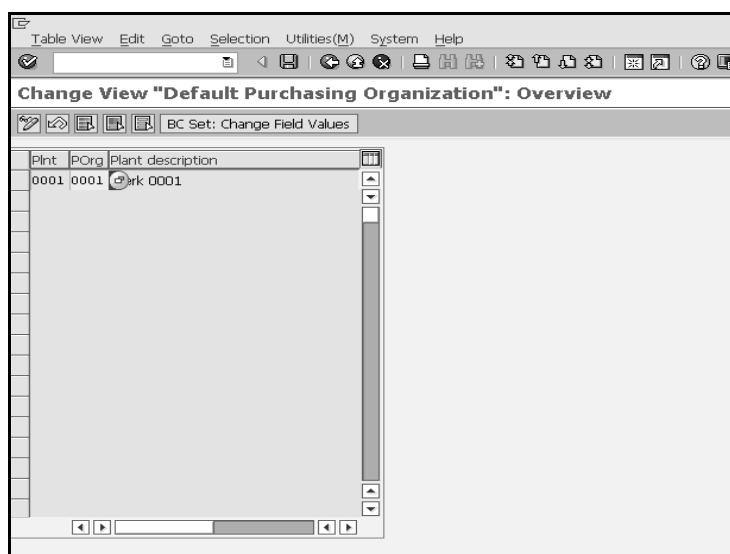
Assign Standard Purchasing Organization to Plant

TCode: OX15

Step 1: On the Display IMG screen, select Assign Standard Purchasing Organization to Plant, by following the above path.



Step 2: We can view the existing assignment and can change it accordingly. Click the Save button after making changes. Standard purchasing organization is now assigned to plant.



8. MASTER DATA

SAP R/3 works on real-time data, i.e., there is no time lag between data entry and data availability. The important thing while creating any data is to maintain data integrity. SAP R/3 data is categorized into two:

- **Master data** - Data that is created centrally, and is valid for all applications. It remains constant over time but we need to update it on a regular basis. For example: Vendor is a type of master data that is used for creating purchase orders or contracts.
- **Transactional data** - Data that is associated with processing of business transaction is transactional data.

SAP Master Data is of the following two types:

- Material Master Data
- Vendor Master Data

Material Master Data

The key points to note about material master data are as follows:

- This is the enterprise main source of material-specific data. This data will include information on the materials that a company can procure, produce, store, or sell.
- Since there are different departments in an enterprise and each department works on some specific material, they will enter different information regarding their material. So, each user department has its own view of the material master record. The data screens that are used to create material master can be divided into two categories:
 - **Main Data:** It includes basic data (base unit of measure, weight), purchasing data (over tolerance and under tolerance), and accounting data (standard price, moving price).
 - **Additional Data:** It includes additional information such as short description about material, currency, etc.

Material master has four characteristics, which we will discuss one by one in the following sections.

Material Types

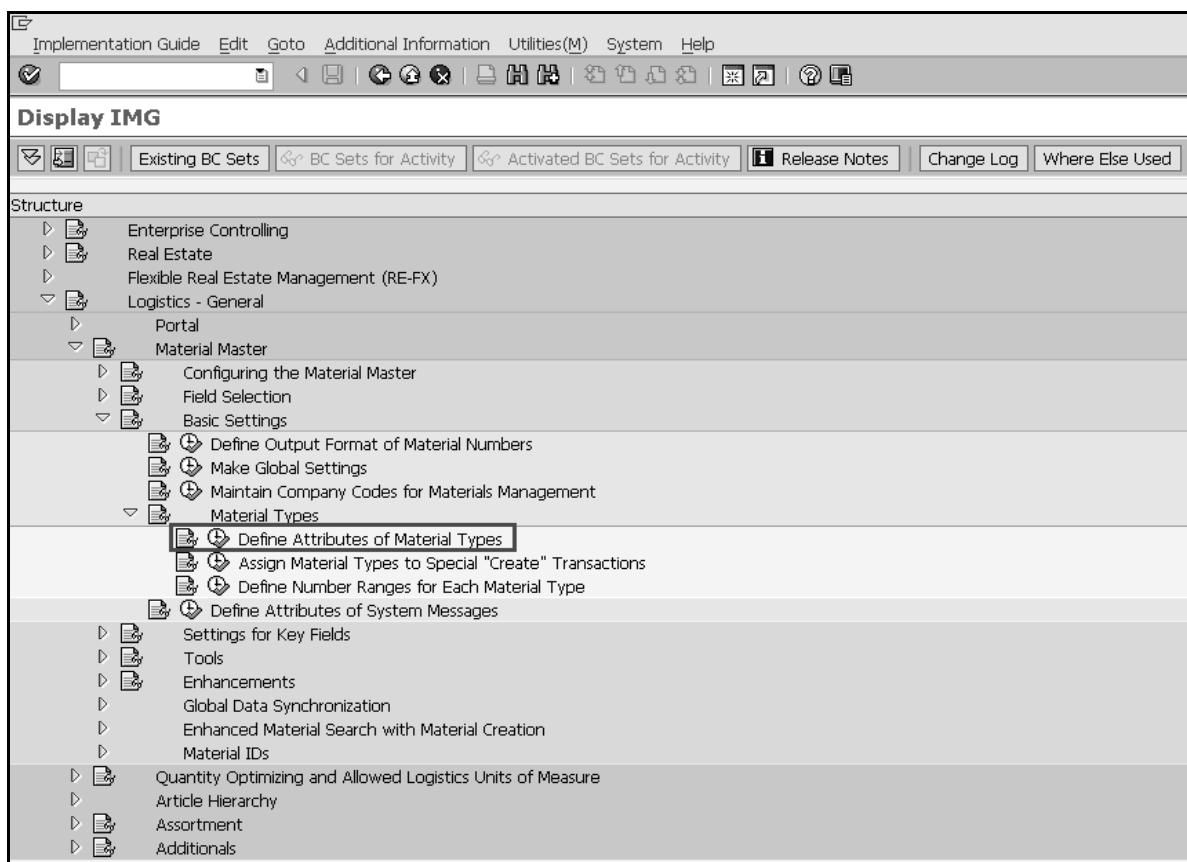
Materials with some common attributes are grouped together and they are assigned to a material type. It differentiates the materials and allows

organizations to manage different materials in a systematic manner in accordance to a company's requirement. For example, raw material and finished products are some of the material types. Material type can be created by following the steps given below.

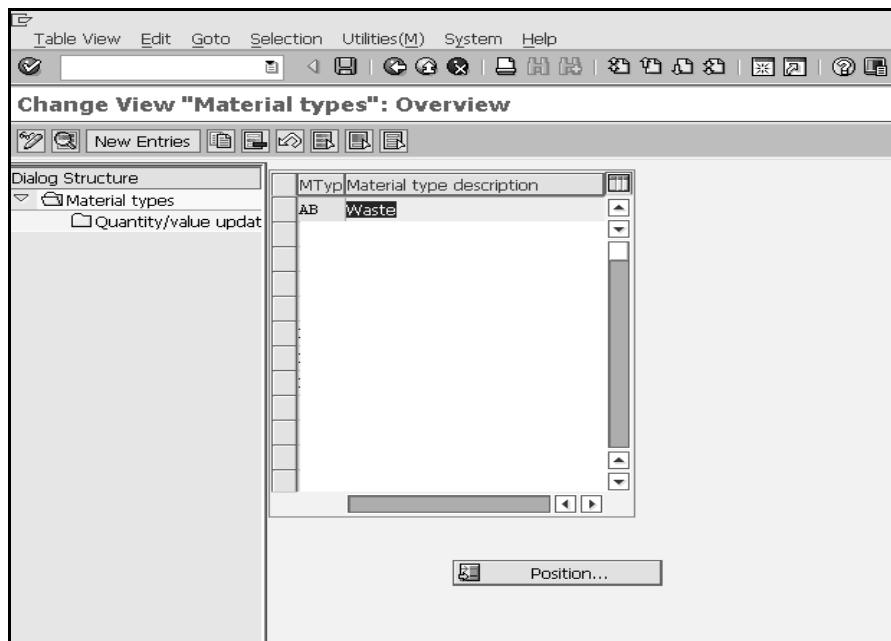
Path to create material type:

IMG => Logistics General => Material Master => Basic Settings => Material Types => Define Attributes of Material Types
TCode: OMS2

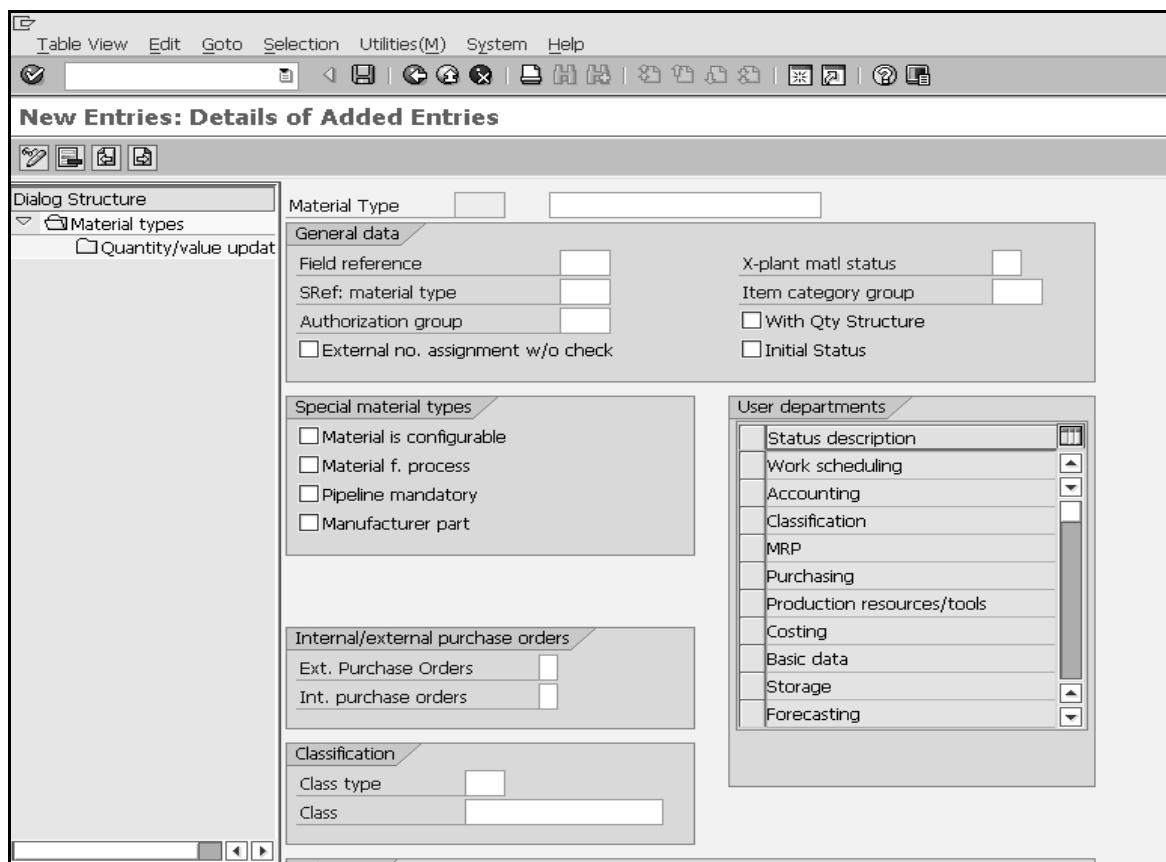
Step 1: On the Display IMG screen, select Define Attributes of Material Types, by following the above path.



Step 2: Click the New Entries button.



Step 3: Fill in the required information such as name of material type and description. Click on Save. A new material type will be created.



Material Groups

Material group is a wider range of material type. Materials with some common attributes are taken together and they are assigned to a material group. For example: We have some materials that are to be packaged, so the material type can be electrical or food products, but we can group these material types and put them in the packaged material group. Follow the steps given below to create a Material Group.

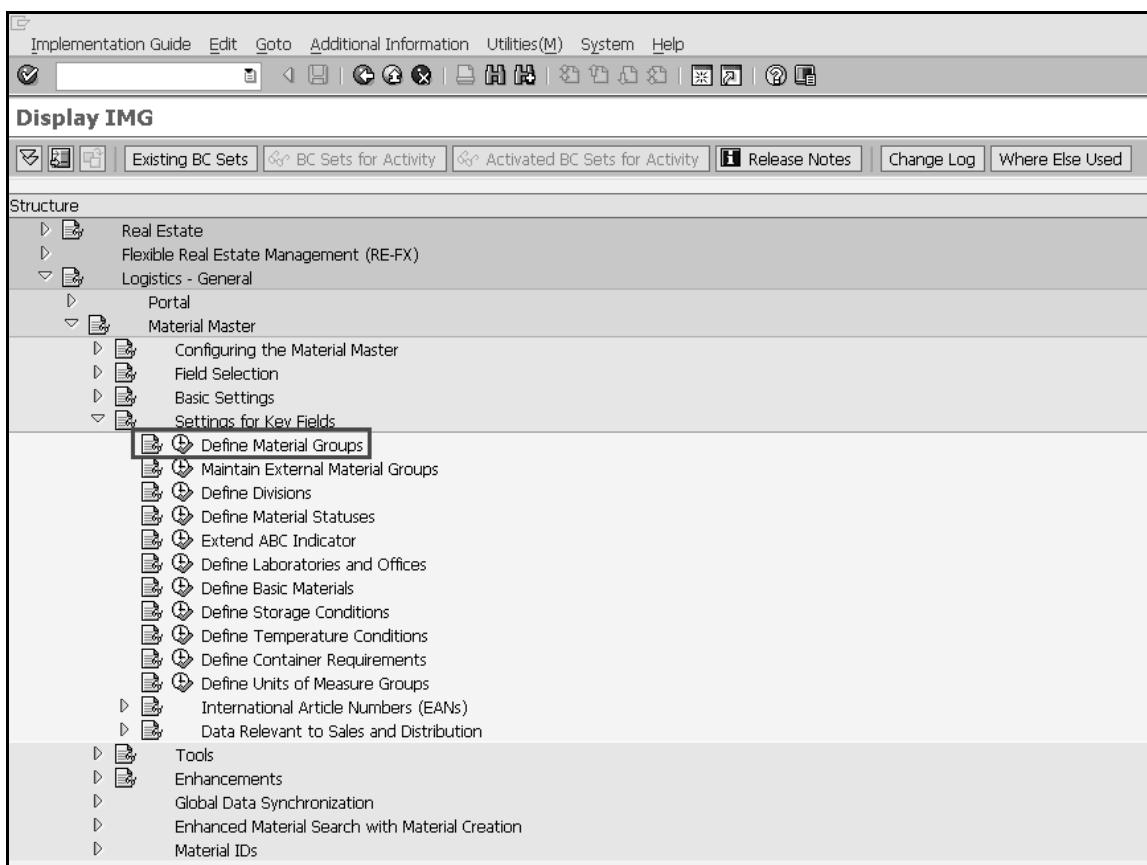
Path to Create Material Group:

IMG => Logistic General => Material Master => Settings for Key Fields =>

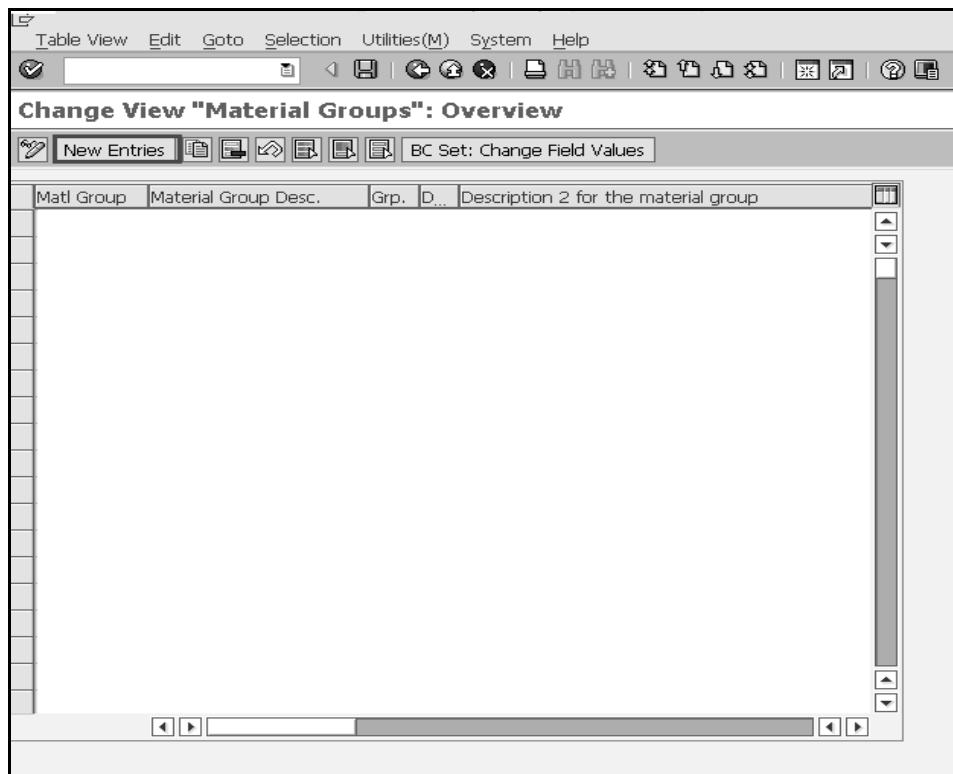
Define Material Groups

TCode: OMSF

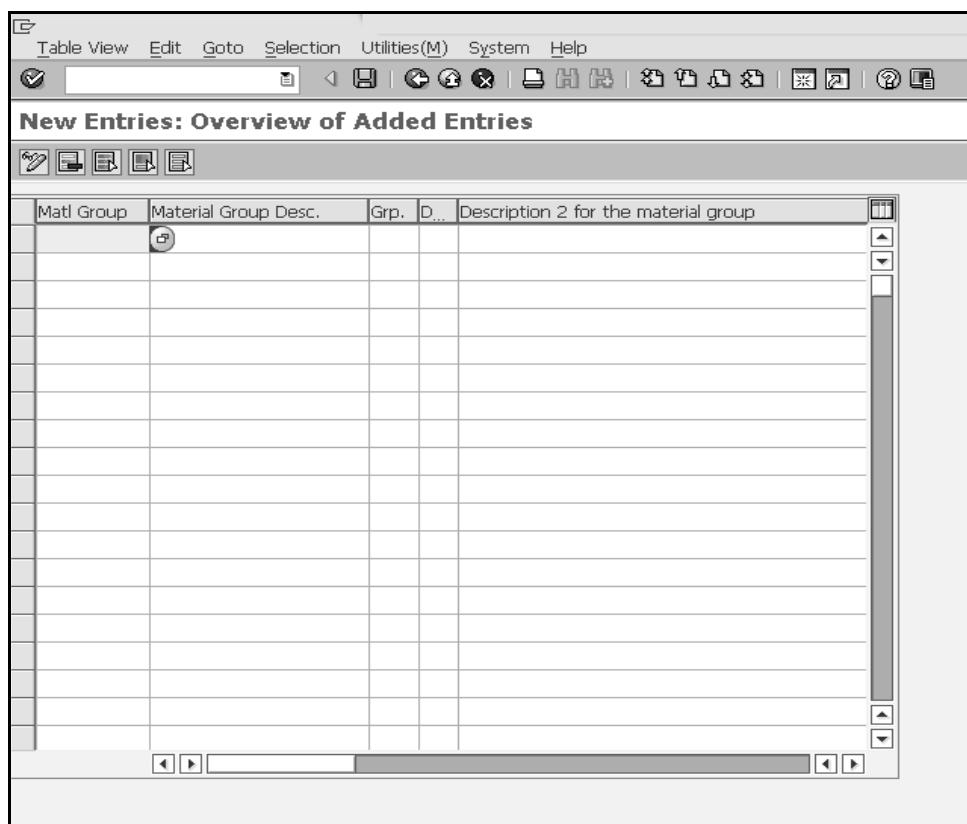
Step 1: On the Display IMG screen, select Define Material Groups, by following the above path.



Step 2: Click the New Entries button.



Step 3: Enter the name of the material group along with its description. Click the Save button. A new material group will be created.



Number Range

When we create a material master record, every material is recognized by a unique number that is known as the material number. We can assign a number to a material through two ways:

- External number assignment - While creating a material, you have to enter your own number (containing alphabets or digits), and that should be unique.
- Internal number assignment - While creating a material, you need not enter any number. The system automatically generates a unique number to that material.

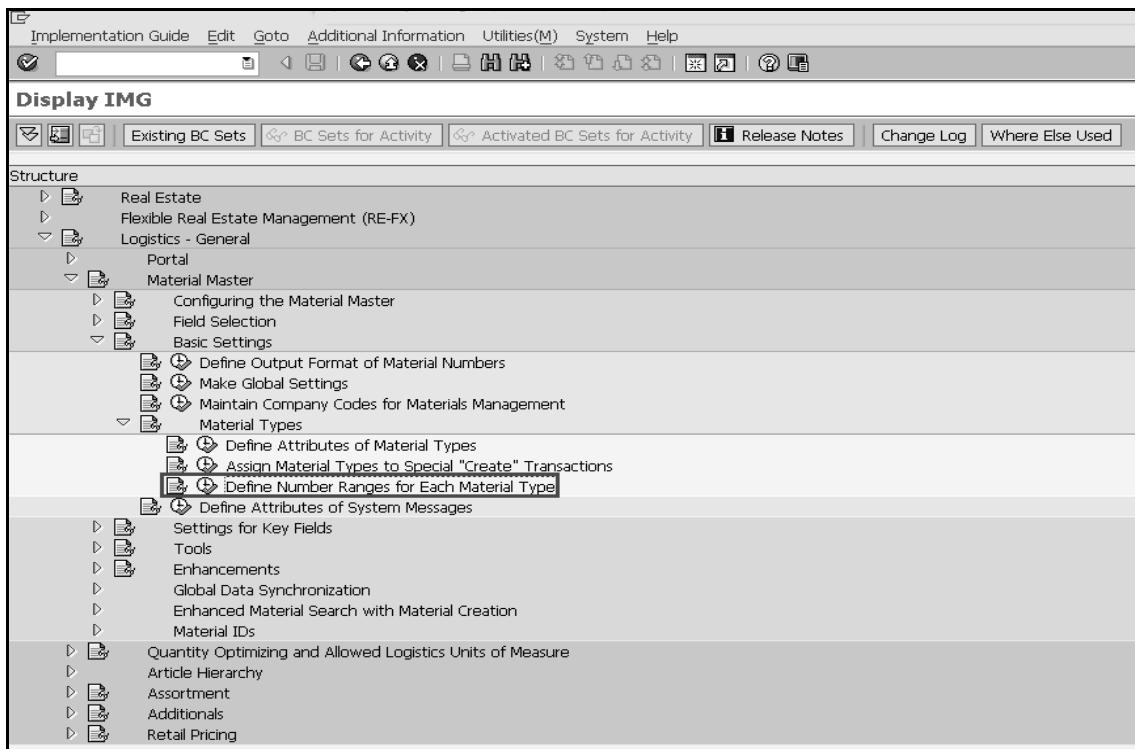
Define Number Range

Internal number range can be defined by following the steps given below:

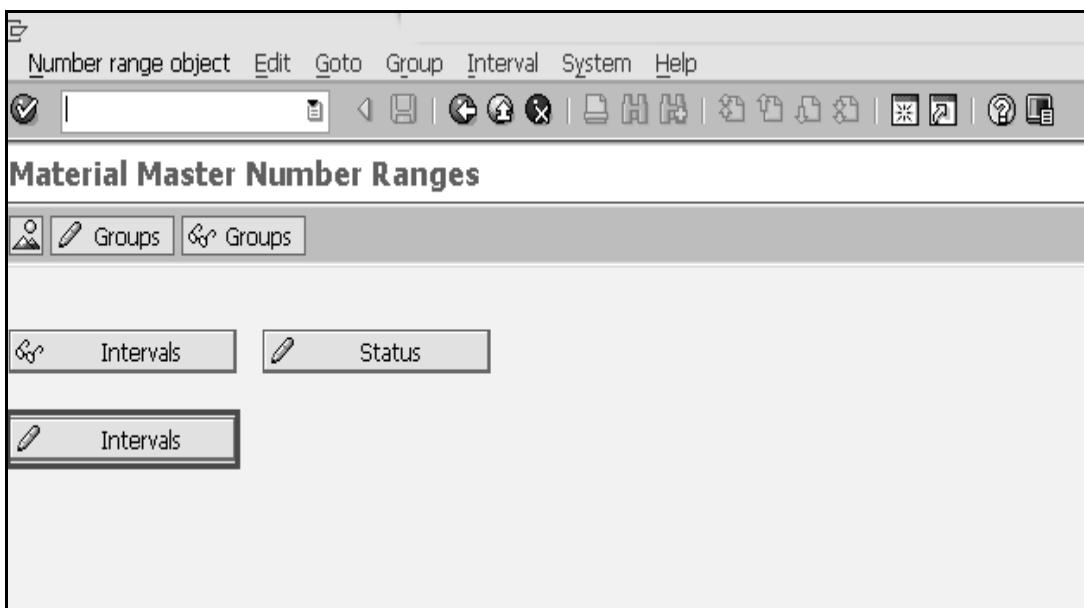
Path to Create Number Range:

IMG => Logistic General => Material Master => Basic Settings => Material Types => Define Number Range for Each material Type
TCode: MMNR

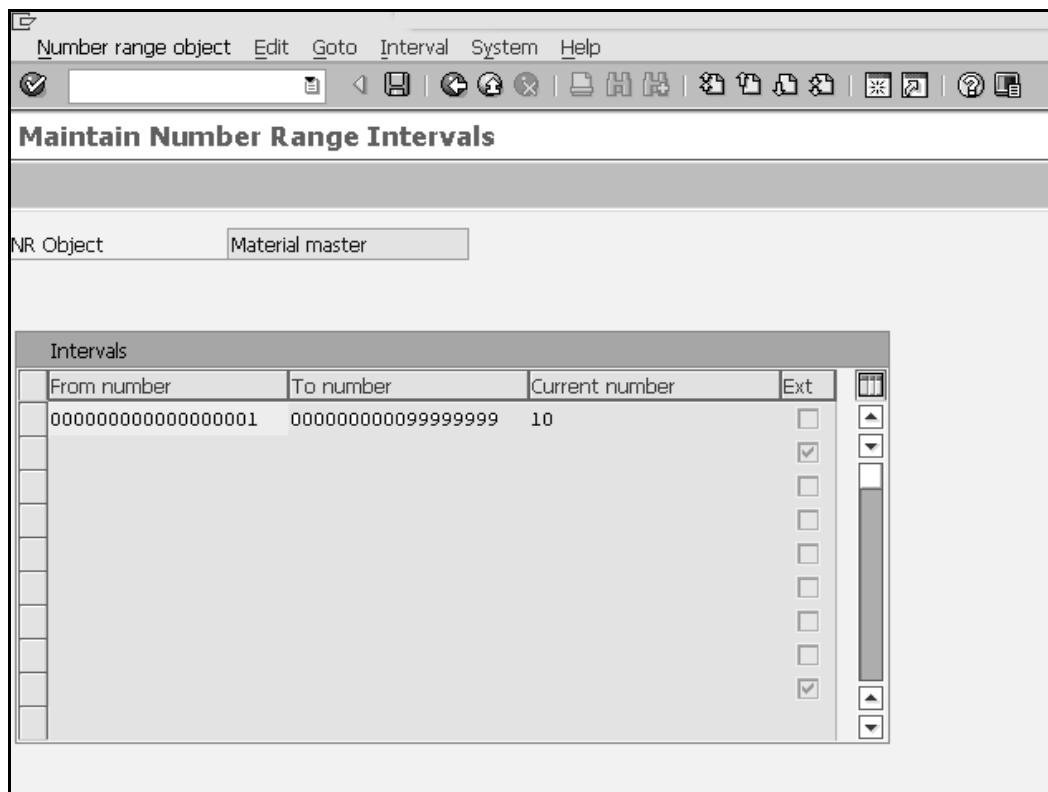
Step 1: On the Display IMG screen, select Define Number Range for Each Material Type, by following the above path.



Step 2: Click the Intervals button.



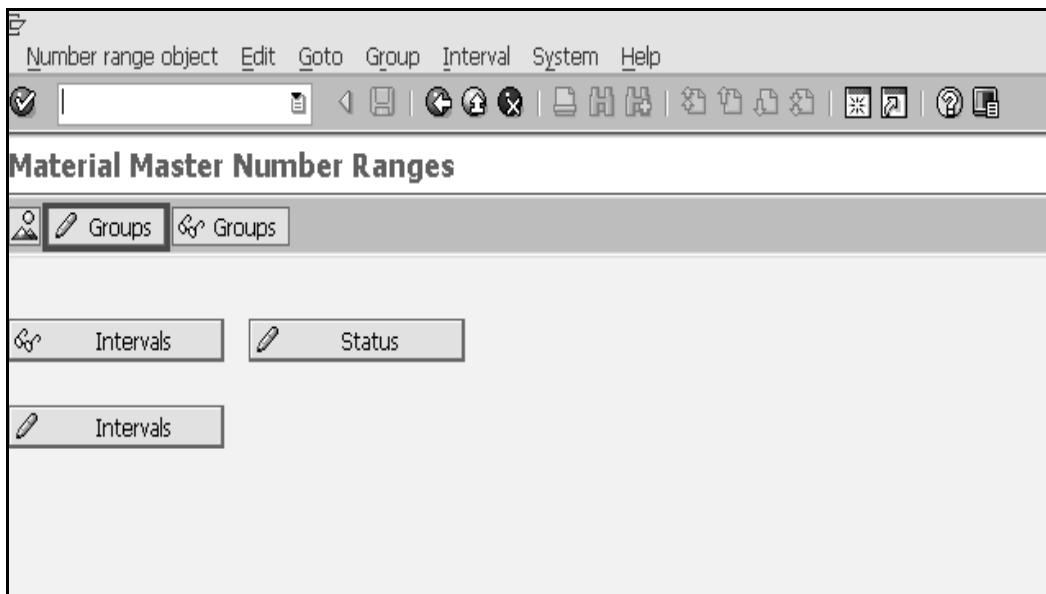
Step 3: We can define a number range here and EXT (external tab, if it is checked, then an external number can be assigned in that material). Click the Save button. Number Range is now defined for the material.



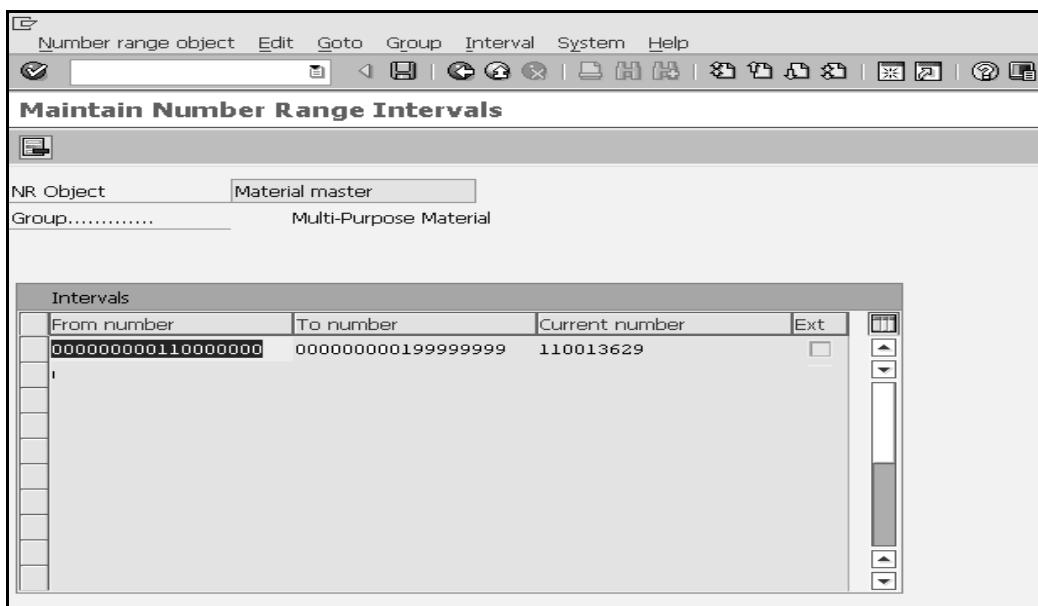
Assignment of Number Range

After defining, we need to assign it to a material group. Follow the steps given below to assign a number range.

Step 1: On the same screen, select the Groups tab.



Step 2: For a particular material group, we can assign a number range here. Click on Save. The number range is now assigned to the material group.



Material Master Creation

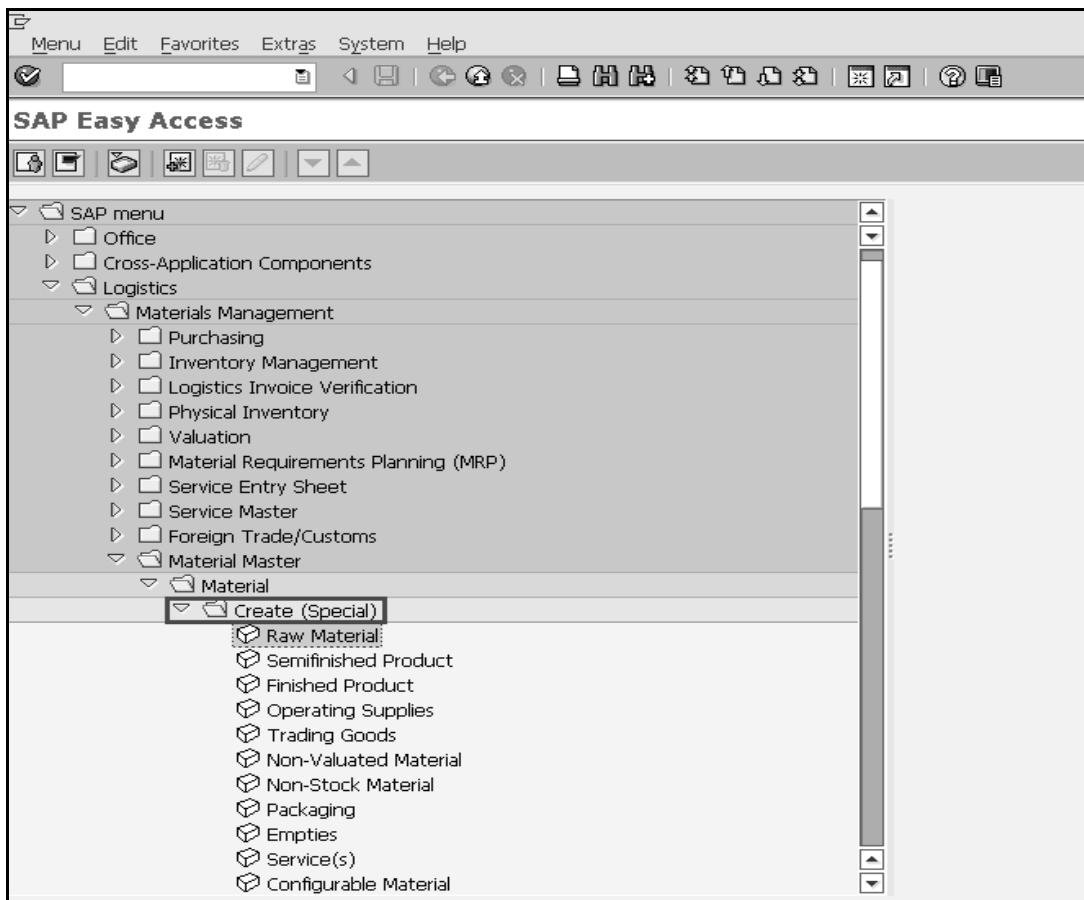
Material master contains information on all materials that a company procures, produces, or sells. It contains central data that is available at all the levels. Follow the steps given below to create a material master:

Path to Create Material Master:

Logistics => Materials Management => Material Master => Material => Create Material
TCode: MM01

Note: For any create transaction, we use 01, for edit 02, for display 03 as suffix.

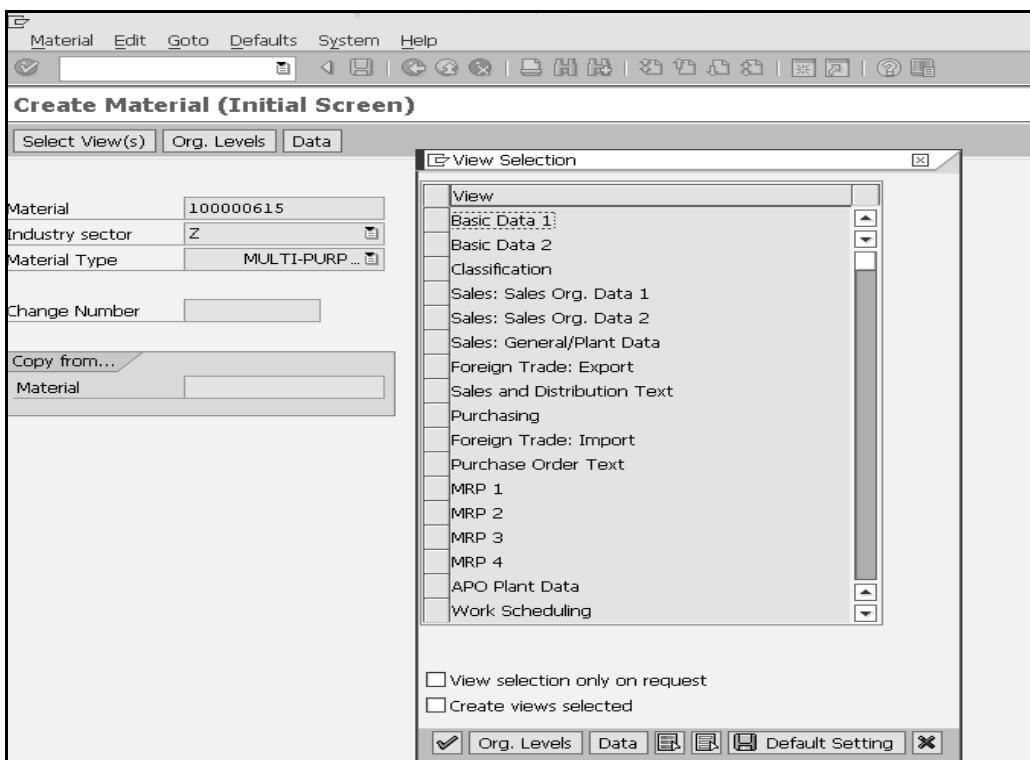
Step 1: On the SAP Menu screen, click the create button by following the above path.



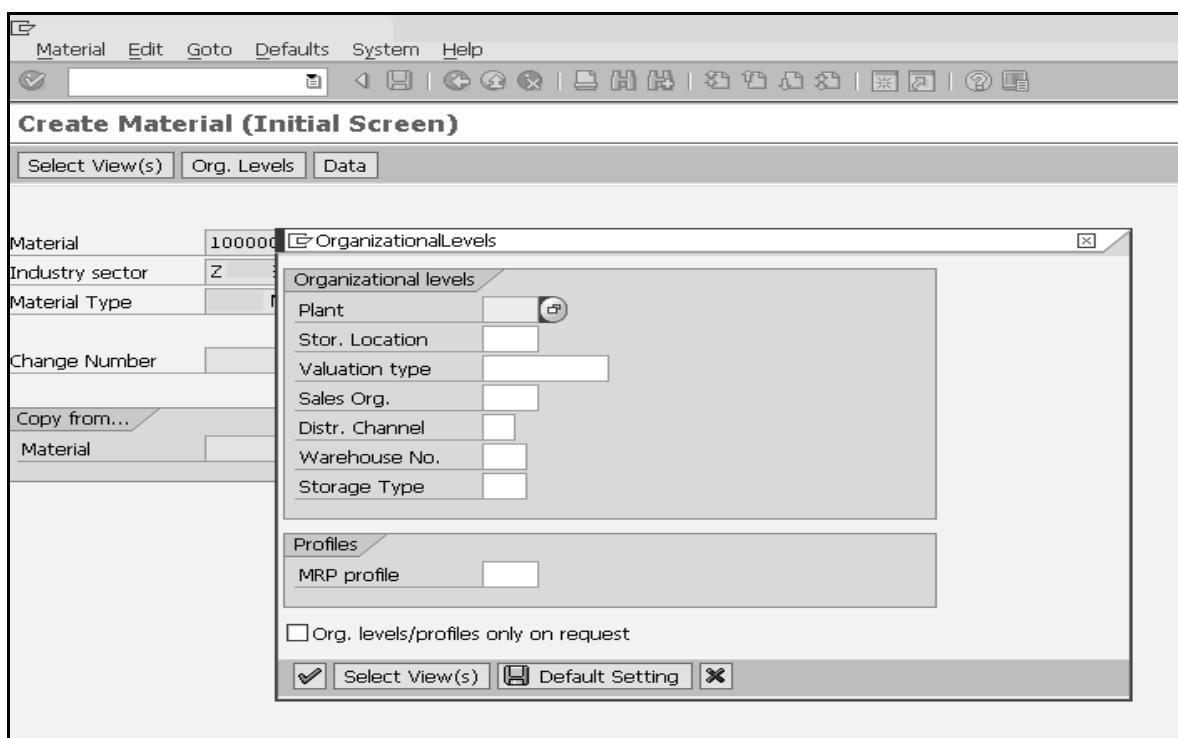
Step 2: Fill in all the required details such as material number (if external number assignment), material type, industry sector, etc.

The screenshot shows the 'Create Material (Initial Screen)' dialog box. It has tabs for 'Select View(s)', 'Org. Levels', and 'Data'. The 'Data' tab is active. The form contains fields for 'Material' (with a browse icon), 'Industry sector' (with a browse icon), 'Material Type' (with a browse icon), 'Change Number' (with a text input field), and a 'Copy from...' section with a 'Material' field (with a browse icon).

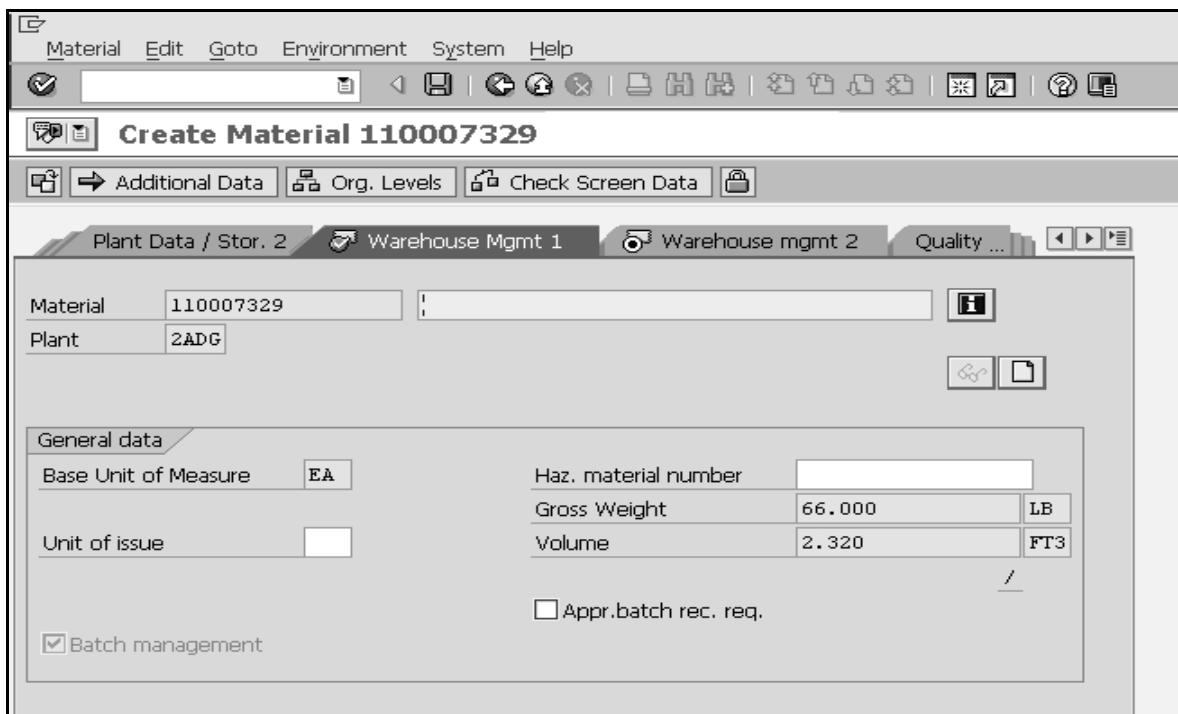
Step 3: Select the views you want to maintain for your material.



Step 4: Enter the name of the plant and the storage location.



Step 5: Enter the required information in your material views such as unit of measure, currency, standard price, moving price, etc. Click on Save. A new material will be created.



Vendor Master Data

The key points about vendor master are as follows:

- Vendor Master Data is the enterprise main source of vendor-specific data. It includes information on vendors from which a company can procure, or can sell.
- A vendor master record contains information such as vendor's name, address, etc.
- Data in a vendor master record is divided into three categories:
 - **General Data:** General data is maintained at the client level and it is valid for all organizational levels.
 - **Accounting Data:** Accounting data is maintained at the company level and it is valid for all plants belonging to that company.
 - **Purchasing Data:** Purchasing data is maintained at the purchasing organization level.

Vendor master has three characteristics, which we will discuss one by one in the following sections.

Vendor Account Group

Vendors are categorized according to their requirements. Some of the vendors having similar characteristics are grouped together and placed in one category.

For example, all local vendors can be placed under one account group. Create a Vendor Account group by following the steps given below.

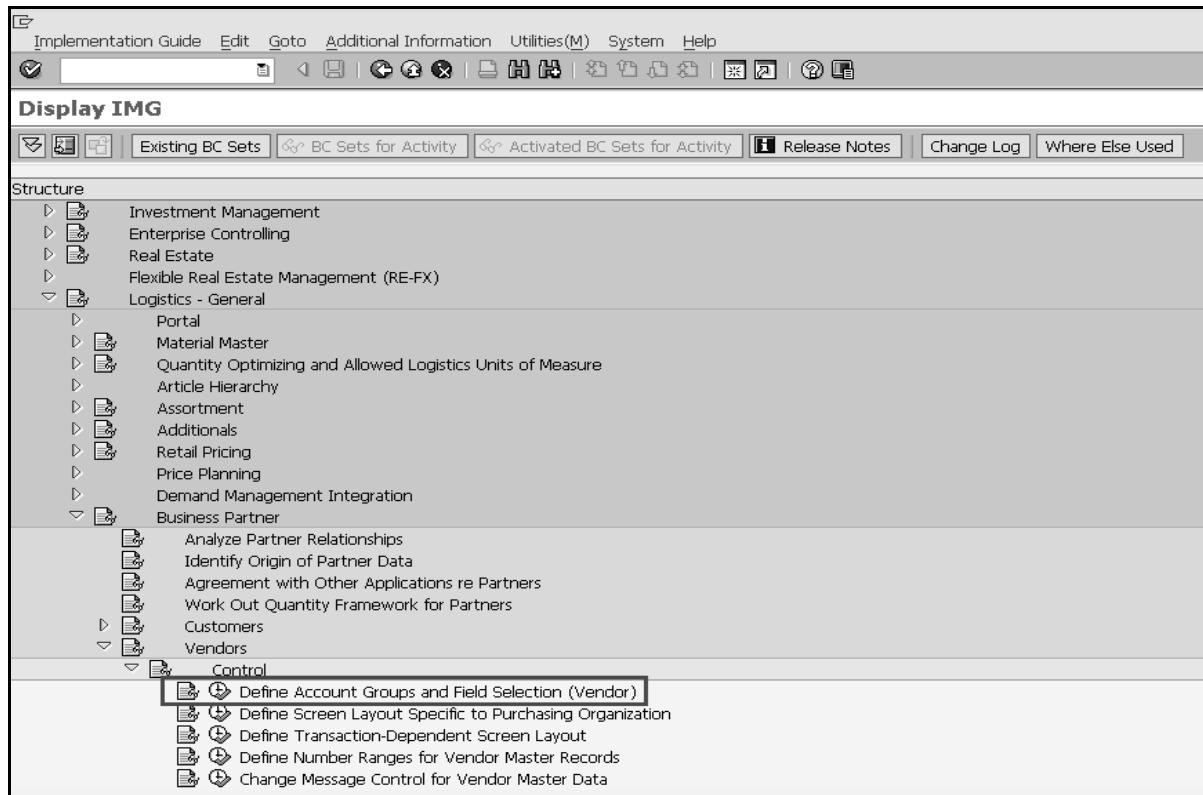
Path to create Vendor Account Group:

IMG => Logistic General => Business Partner => Vendors => Control =>

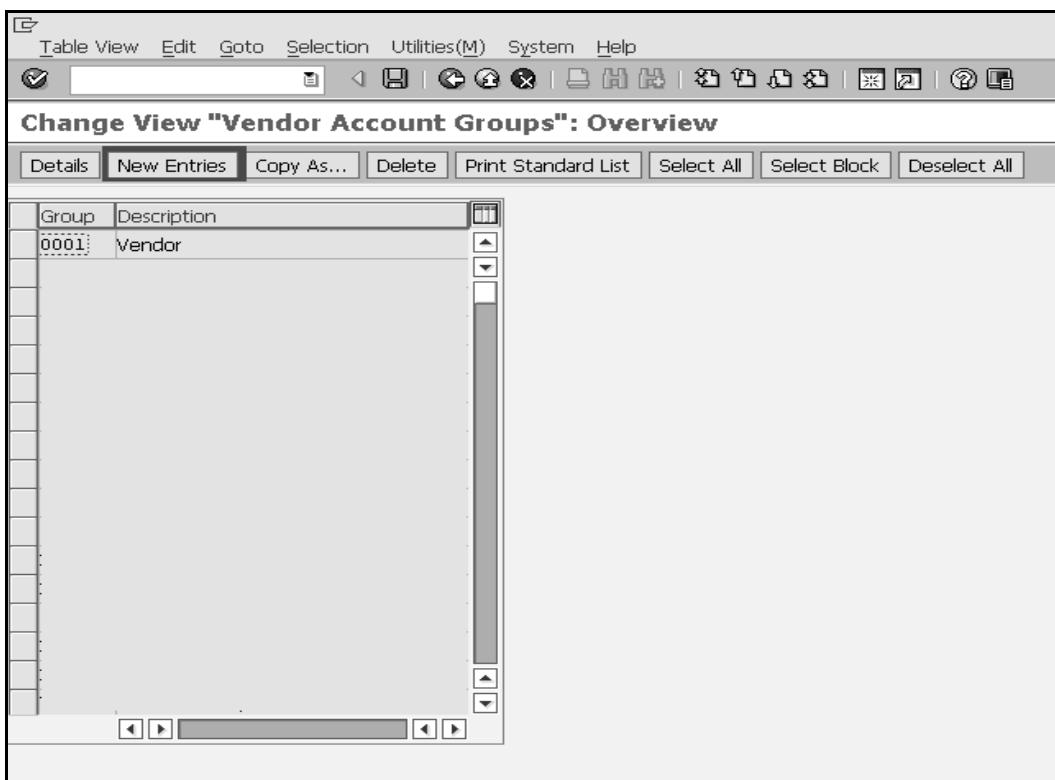
Define Account group and field selection(vendor)

TCode: OBD3

Step 1: On the Display IMG screen, select Define Account Groups and Field Selection (Vendor), by following the above path.



Step 2: Click the New Entries button.



Step 3: Fill in all necessary details such as name of account group, general data, and field status. Click the Save button. A new Vendor Account Group will be created.

Account Group	0001
General Data Name: <input type="text"/> Number Range: <input type="text"/> One-Time Account: <input type="checkbox"/>	
Field Status General Data Company Code Data Purchasing Data Purchasing Sub-Range Purchasing Plant	
Data Retent. Levels: Purchasing <input type="checkbox"/> Vendor sub-range relevant <input type="checkbox"/> Plant level relevant	
Default Values <input type="checkbox"/> Do not transfer any data	
PartnerDetermProced. Partner schema, purch. org.: <input type="text"/> Partner schema, sub-range: <input type="text"/> Partner schema: plant level: <input type="text"/>	

Number Range

When we create a vendor master record, every vendor is recognized by a unique number known as the vendor number. As in the case of material master, we have external as well as internal number assignments for vendor master.

Define Number Range

Number range can be defined by following the steps given below:

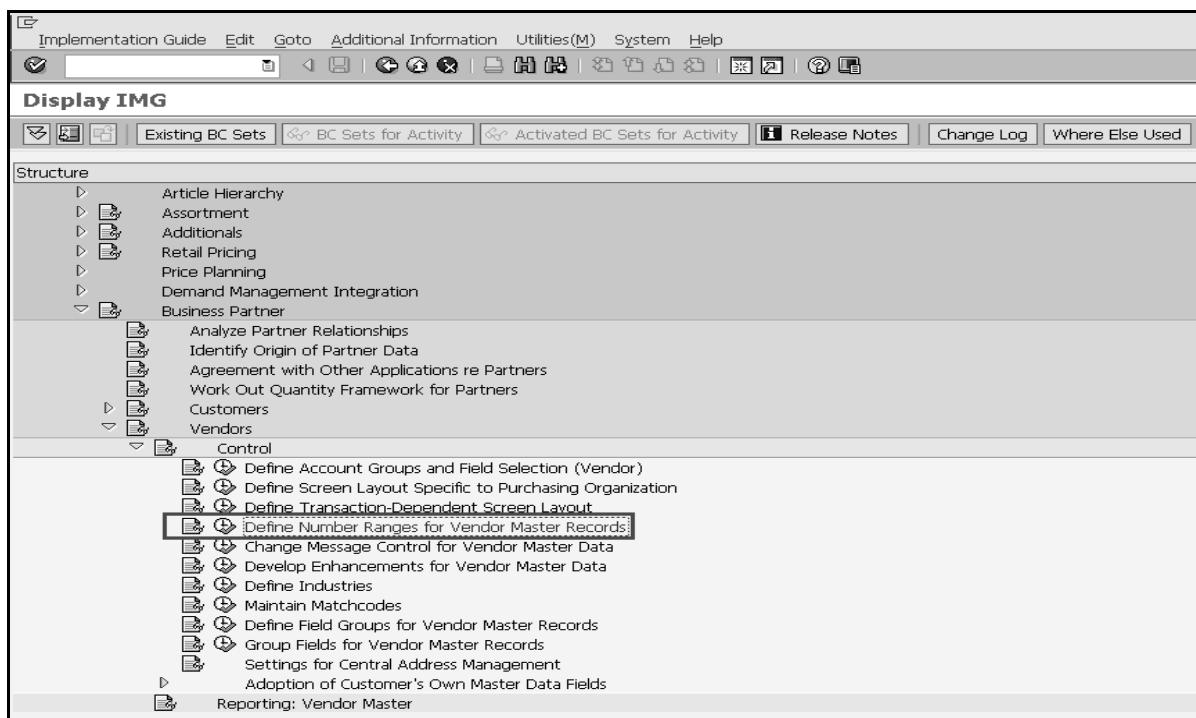
Path to create Number Range:

IMG => Logistic General => Business Partner => Vendors => Control =>

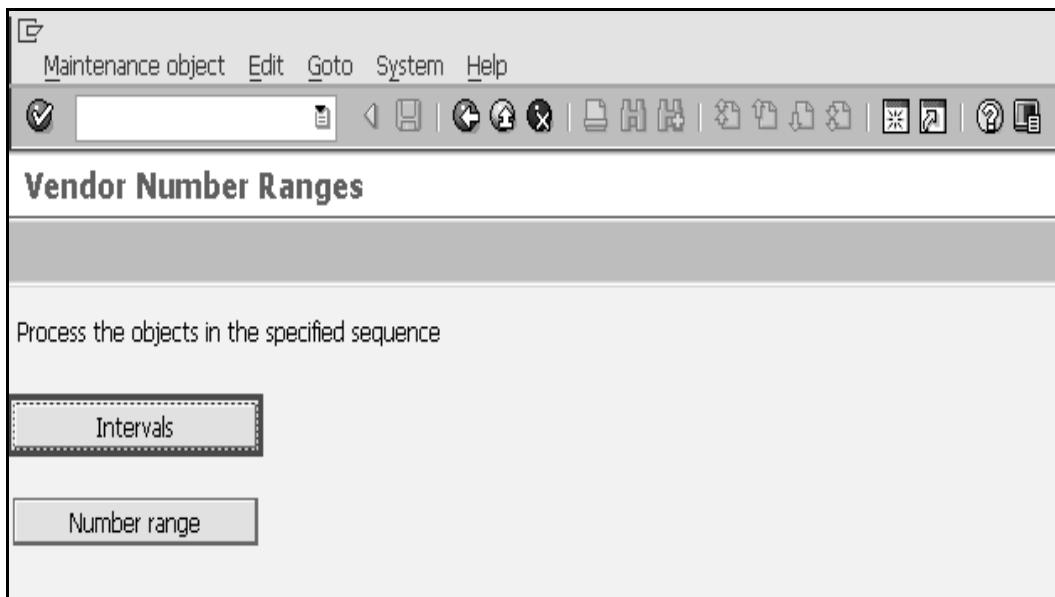
Define Number Range for Vendor master record

TCode: XDN1

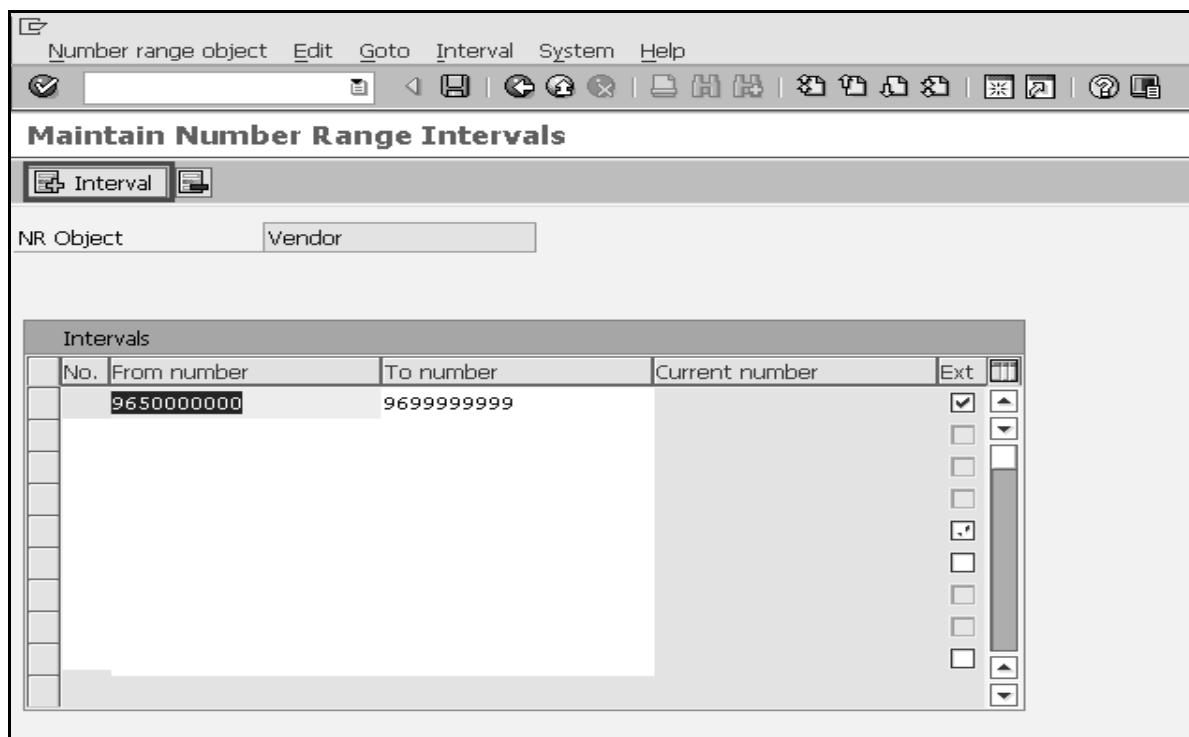
Step 1: On the Display IMG screen, select Define Number Range for Vendor Master Record, by following the above path.



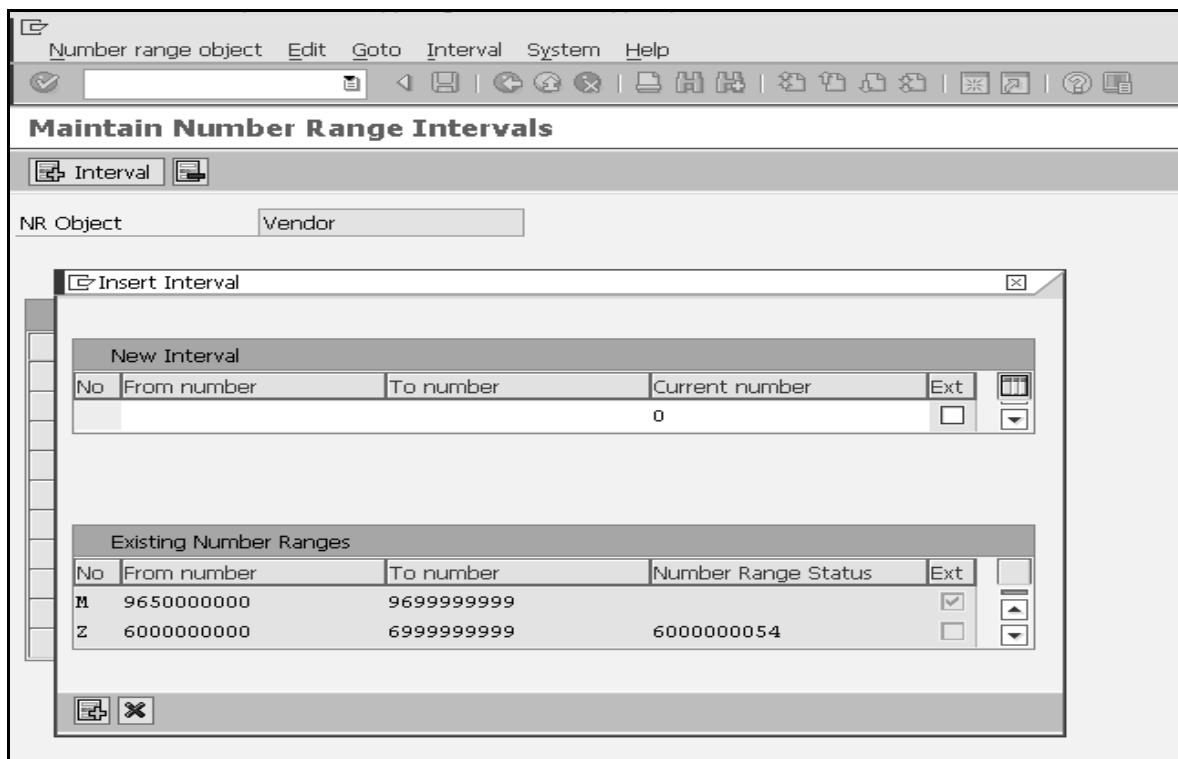
Step 2: Click the Intervals button. It will create a number range for the customer account.



Step 3: Click the Insert button.



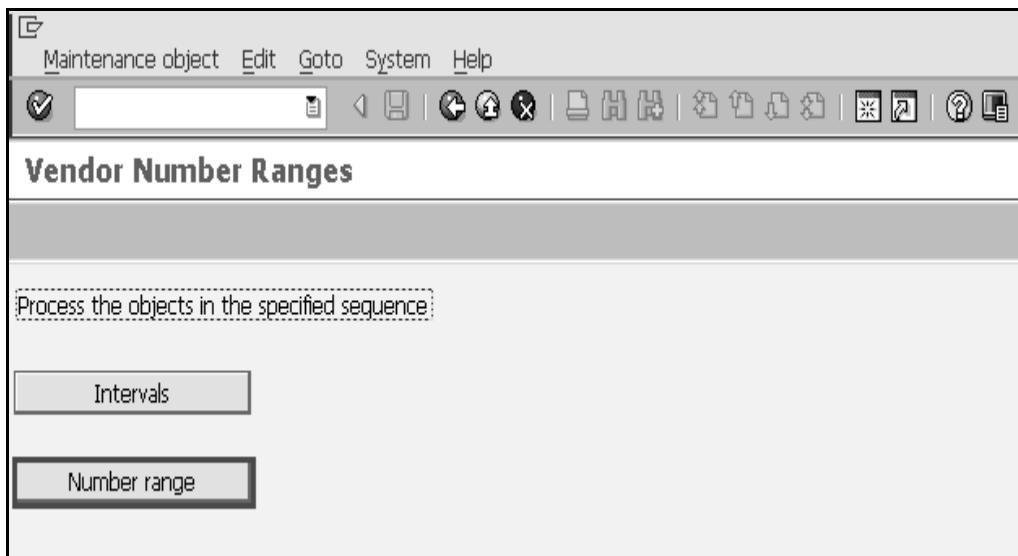
Step 4: We can define a number range here and EXT (external tab, if it is checked, then external number assignment can be done in that vendor). Click on Save. A new Number Range will be created.



Assignment of Number Range

After defining a number range, we need to assign it to a vendor group. Follow the steps given below to assign the number range.

Step 1: On the same screen as shown above, select the Number Range tab.



Step 2: For a particular vendor group, assign a number range here. Click on Save. Number range is now assigned to the vendor group.

Group	Name	Number range
0001	Vendor	

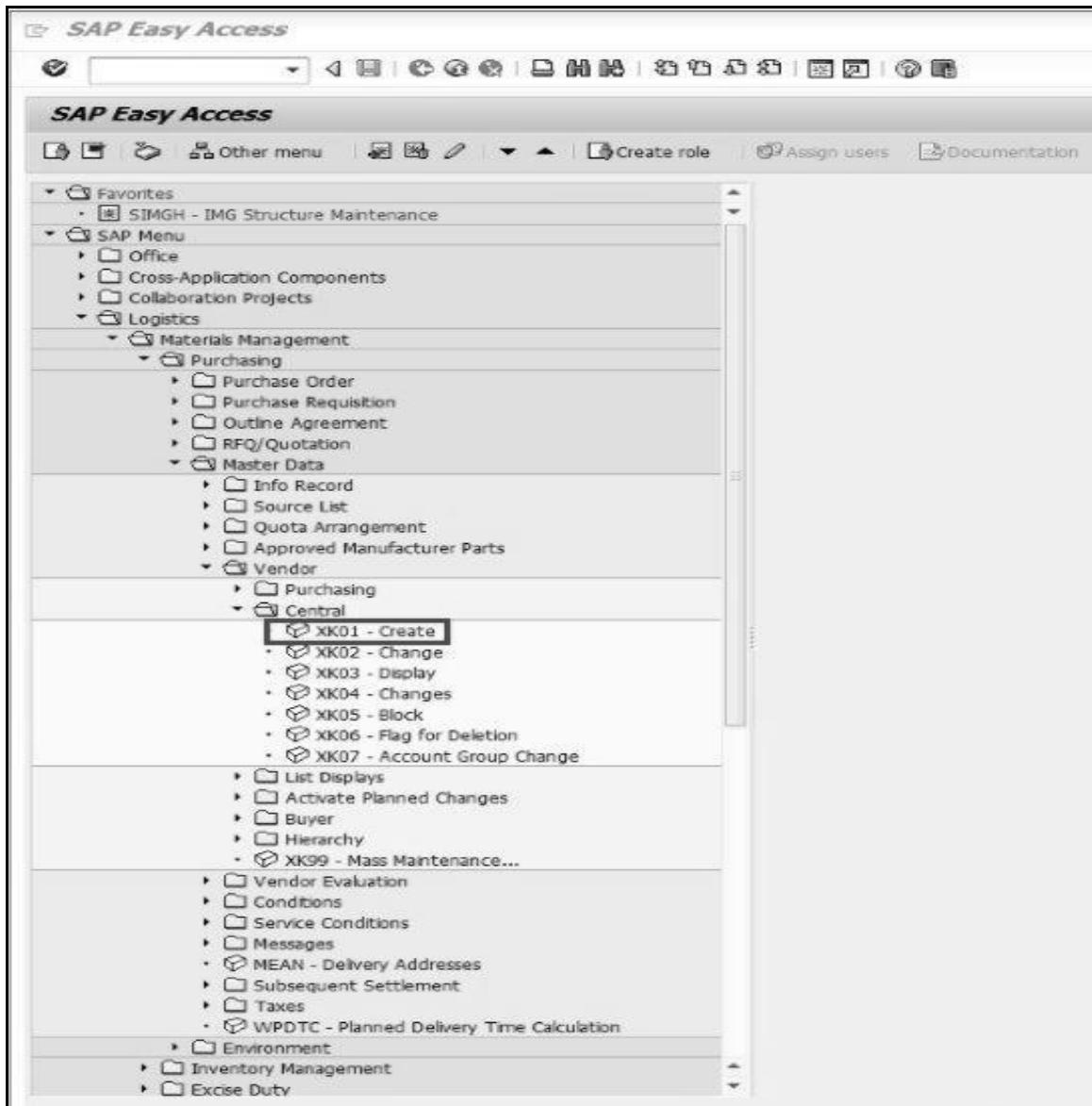
Creation of Vendor Master

Vendor Master contains a list of vendors from where a company can procure or sell goods. A Vendor Master can be created by following the steps given below:

Path to create Vendor Master:

SAP Menu => Logistics => Material Management => Purchasing => Master Data => Vendor => Central => Create
TCode: XK01

Step 1: On the SAP Menu screen, select Create for Central Vendor Data, by following the above path.



Step 2: Fill in all the required details such as company code, purchasing org, and vendor number (if external number assignment).

Create Vendor: Initial Screen

Vendor

Company Code

PurchasingOrganization

Account group

Reference

Vendor

Company code

PurchasingOrganization

Step 3: Fill in all the details of vendor's address such as street name, postal code, country.

Create Vendor: Address

Vendor INTERNAL

Name

Title: Company
Name: XYZ limited

Search Terms

Search term 1/2: XYZ

Street Address

Street/House number: Hosur Road
Postal Code/City: 560100 Bangalore
Country: IN Region: 10

PO Box Address

PO Box:
Postal code:

Communication

Language: English
Telephone: 09123976585 Extension:
Fax: Extension:
E-Mail: xyz@mail.com
Data line:
Telebox:

Step 4: Fill in the necessary bank details of the vendor.

The screenshot shows the 'Create Vendor: Payment transactions' screen. At the top, the vendor information is set to 'INTERNAL' with 'XYZ limited' and 'Bangalore'. Below this, the 'Bank Details' section contains a table for entering bank account information. The table has columns for 'C...', 'Bank Key', 'Bank Account', 'Acct holder', 'A.', 'IBAN', 'IBANValue', 'BT...', and 'Ref...'. There are four rows in the table. Below the table are buttons for 'Bank Data...', 'Delete Bank Detail', and 'IBAN'. To the right of the table is a 'Payment transactions' section with fields for 'Alternative payee', 'DME Indicator', 'Instruction key', and 'ISR Number'. To the right of that is an 'Alternative payee in document' section with checkboxes for 'Individual spec.' and 'Spec. per reference', and a button for 'Permitted Payee'.

Step 5: Fill in the necessary accounting information of the vendor.

The screenshot shows the 'Create Vendor: Accounting information Accounting' screen. At the top, the vendor information is set to 'INTERNAL' with 'XYZ limited' and 'Bangalore'. Below this, the 'Company Code' is listed as '4300 India'. The screen is divided into several sections: 'Accounting information' (with fields for Recon. account, Sort key, Head office, Subsidiary indic., Authorization, Cash mgmnt group, Release group, Minority indic., Certificatn date), 'Interest calculation' (with fields for Interest indic., Last key date, Interest freq., Last interest run), 'Withholding tax' (with fields for W. Tax Code, Exemption number, WH Tax Country, Valid until, Recipient type, Exempt authority), and 'Reference data' (with fields for Prev.acct no. and Personnel number).

Step 6: Fill in the terms of payment that are defined between the company and the vendor. Click on Save. A new vendor master will be created.

The screenshot shows the SAP MM interface for creating a vendor master. The title bar reads "Create Vendor: Payment transactions Accounting". The vendor details section shows "Vendor INTERNAL XYZ limited Bangalore" and "Company Code 4300 India". The "Payment data" section includes fields for "Payt Terms" (dropdown), "Tolerance group" (dropdown), and checkboxes for "Chk double inv." and "Chk cashng time". The "Automatic payment transactions" section includes fields for "Payment methods" (dropdown), "Alternat.payee" (dropdown), "Individual pmnt" (checkbox), "B/exch.limt" (dropdown set to INR), "Pmt adv. by EDI" (checkbox), "Payment block" (checkbox), "House Bank" (dropdown), and "Grouping key" (checkbox). The "Invoice verification" section includes a "Tolerance group" dropdown. The top menu bar includes "Vendor", "Edit", "Goto", "Extras", "Environment", "System", and "Help".

9. PURCHASE INFO RECORD

SAP R/3 works on all real-time data that includes material master and vendor master. Material and vendor master are separate data records for keeping information of materials and vendors from where material is procured. The combined information of material and vendor altogether is kept in a record that we call as purchase info record. The key points about purchase info record are as follows:

- Purchasing info record stores information on material and vendor, supplying that material. For example, a vendor's current price of a particular material is stored in info record.
- Purchase info record can be maintained at the plant level or at the purchasing organization level.
- Info record can be maintained for four procurement types, which are as follows:
 - **Standard:** Standard info record has information on standard orders (orders include details of vendor and material). This info record will include vendor's price for supplying a particular material.
 - **Subcontracting:** Subcontracting info record has the information on subcontract orders. It includes price for assembling the raw material that is supplied by the ordering party.
 - **Pipeline:** Pipeline info record has information on material that is provided by vendor through pipes. For example, water, electricity, etc.
 - **Consignment:** Consignment info record has information on material that is kept at the premises of the ordering party. It contains vendor's price that is to be paid for withdrawing material from a consignment stock.

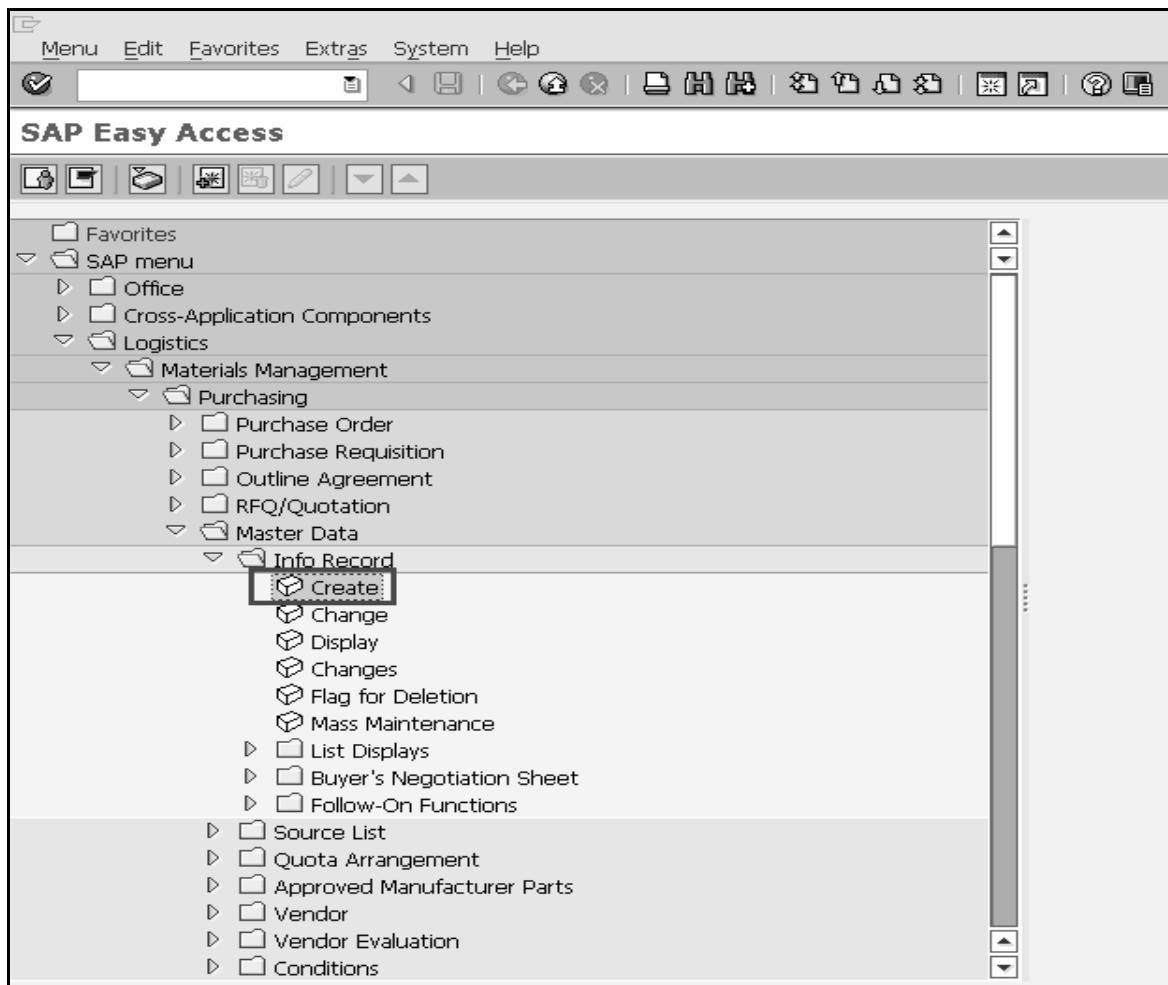
Creation of Purchase Info Record

Follow the steps given below to create a Purchase Info Record.

Path to create Info Record:

Logistics => Material Management => Purchasing => Master Data => Info Record => Create
TCode: ME11

Step 1: On the SAP Menu screen, select the Create icon, by following the above path.



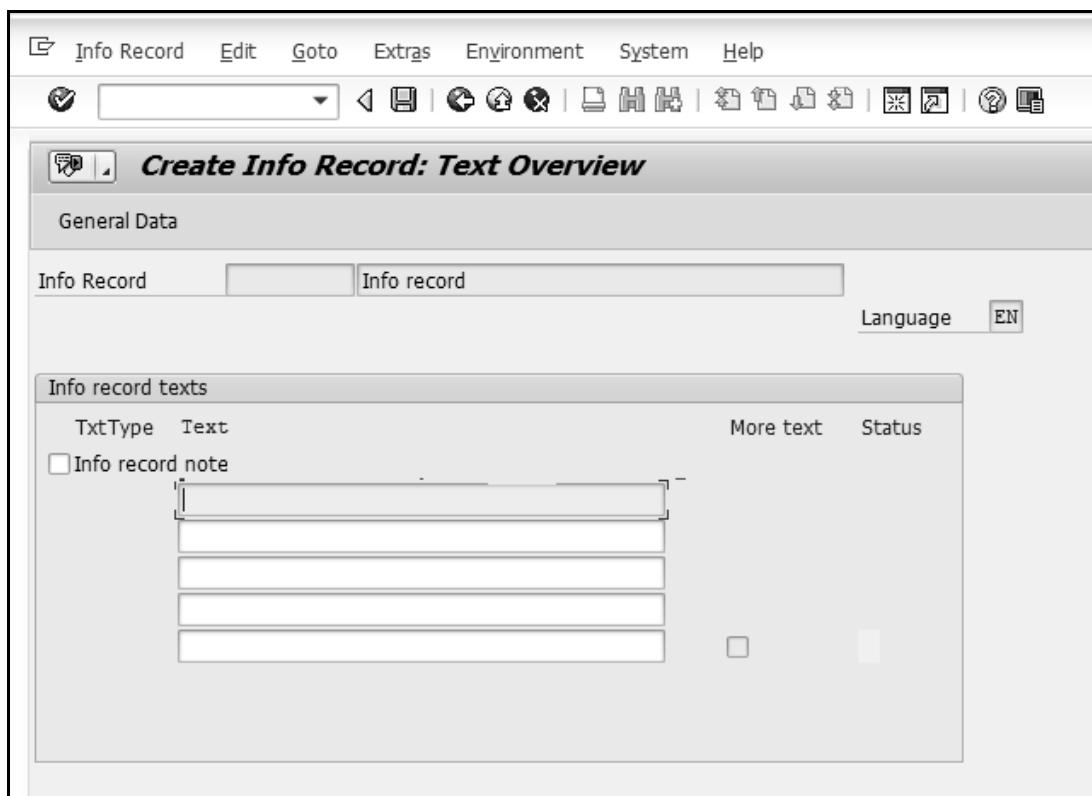
Step 2: Enter the vendor number. In the info category, select standard or subcontracting, or pipeline or consignment, according to the requirement.

The screenshot shows the SAP MM 'Create Info Record: Initial Screen'. At the top, there is a menu bar with 'Info Record', 'Edit', 'Goto', 'Extras', 'Environment', 'System', and 'Help'. Below the menu is a toolbar with various icons. The main area is titled 'Create Info Record: Initial Screen'. It contains several input fields: 'Vendor' (with value '1000000000'), 'Material' (empty), 'Purchasing Org.' (empty), 'Plant' (empty), and 'Info Record' (empty). To the right of these fields is a group box labeled 'Info category' containing four radio buttons: 'Standard' (selected), 'Subcontracting', 'Pipeline', and 'Consignment'.

Step 3: Fill in the required details such as material group, 1st/2nd/3rd reminder, vendor material number, personal details, order unit, origin data, and sort term.

The screenshot shows the SAP MM 'Create Info Record: General Data' screen. The title bar says 'Create Info Record: General Data'. The screen is divided into several sections: 'Texts' (with 'Info Record' and 'Vendor' fields), 'Origin Data' (with 'Certif. Cat.', 'Certificate', 'Valid to', 'Ctry of Origin', 'Region', 'Number', and 'Manufacturer' fields), 'Supply Option' (with 'Available from' and 'Available to' fields), 'Vendor Data' (with fields for '1st Rem./Exped.', '2nd Rem./Exped.', '3rd Rem./Exped.', 'Vendor Mat. No.', 'Vendor Subrange', 'VSR Sort No.', 'Vendor Mat. Grp', 'Points', 'Salesperson', 'Telephone', 'Return Agmt', and 'Prior Vendor'), 'Purchase Order Unit of Measure' (with 'Order Unit' field), and 'Sorting' (with 'Sort Term' field).

Step 4: Provide the info record note that can be called as info record description. Click on Save. A new info record will be created.



10. SOURCE DETERMINATION/LIST

The combined information of material and vendor is kept in a record that is known as purchase info record. But a particular material can be ordered from different vendors in different time intervals. This information can be maintained in a list that is called as the source list. The key points to note about a source list are as follows:

- Source list includes a list of possible sources of supply for a material over a given framework of time.
- Source list specifies the time period of ordering a particular material from a given vendor.
- Source list can be copied from one plant to another plant.

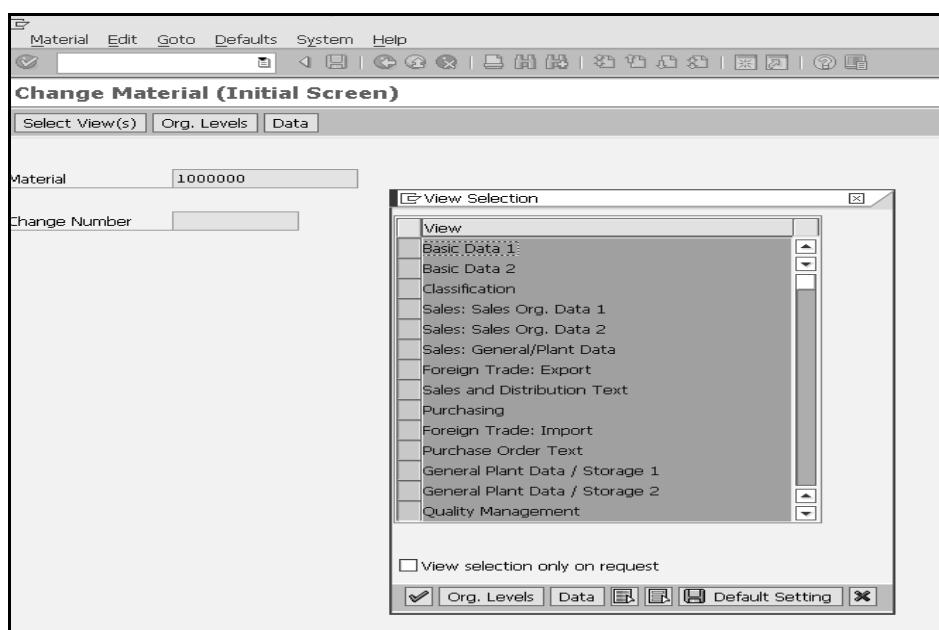
Source list can be created by the following two ways:

- Automatically
- Manually

Automatic Creation of Source List

Source list can be automatically created by changing a few settings in the material master. Automatic source list can be created by following the steps given below.

Step 1: Go to MM02 (Edit mode of material master for which you want to create source list automatically). Select all the views.



Step 2: Inside purchasing view, check the box for source list. Click on Save. Source list will be created automatically for the material.

The screenshot shows the SAP MM Change Material screen for material number 1000000. The Purchasing tab is selected. In the Other data / manufacturer data section, there is a checkbox labeled "Source list" which is checked. Other fields visible include Purchasing Group (E1), Material Group (1200), and various shipping and delivery tolerance settings.

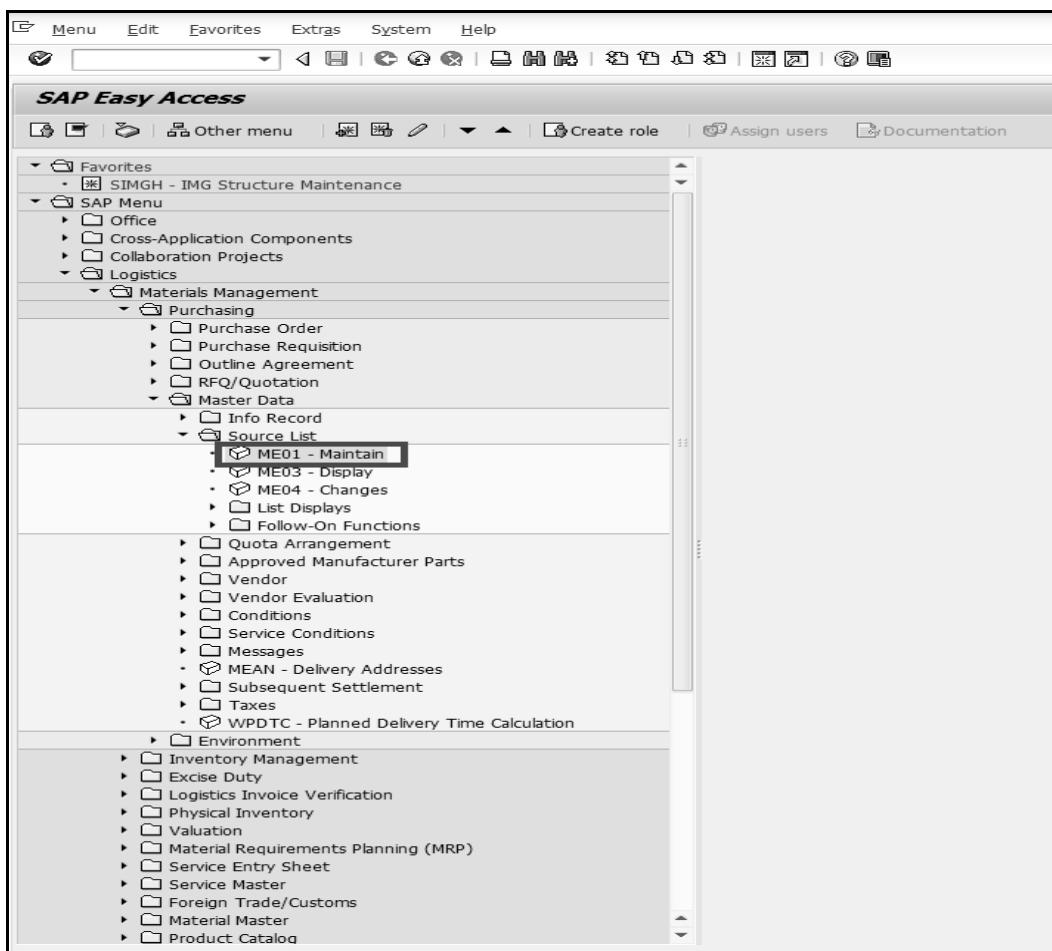
Manual Creation of Source List

Source list can be created manually by following the steps given below:

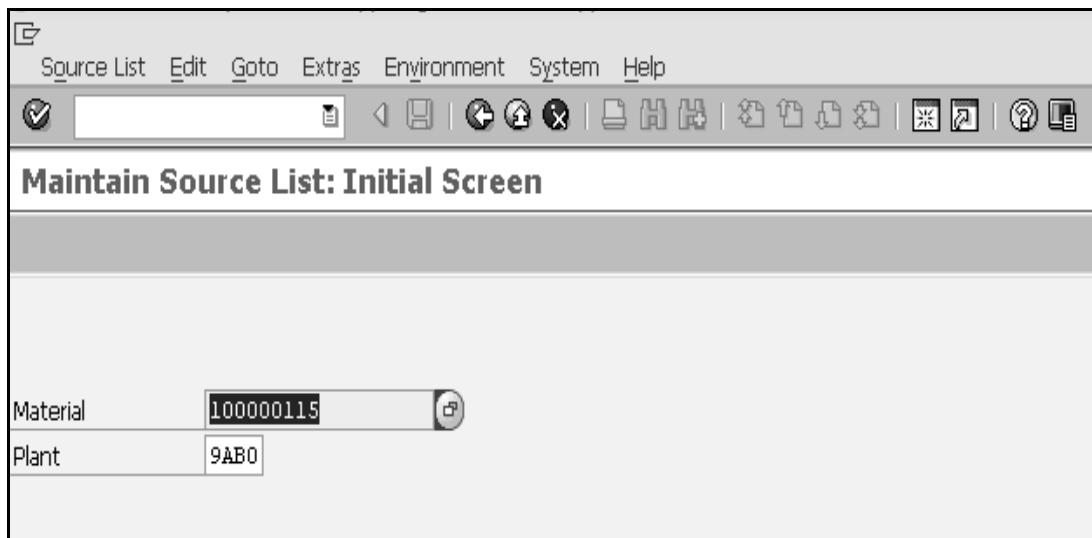
Path to Maintain Source list:

Logistics => Material Management => Purchasing => Master Data => Source List => Maintain
TCode: ME01

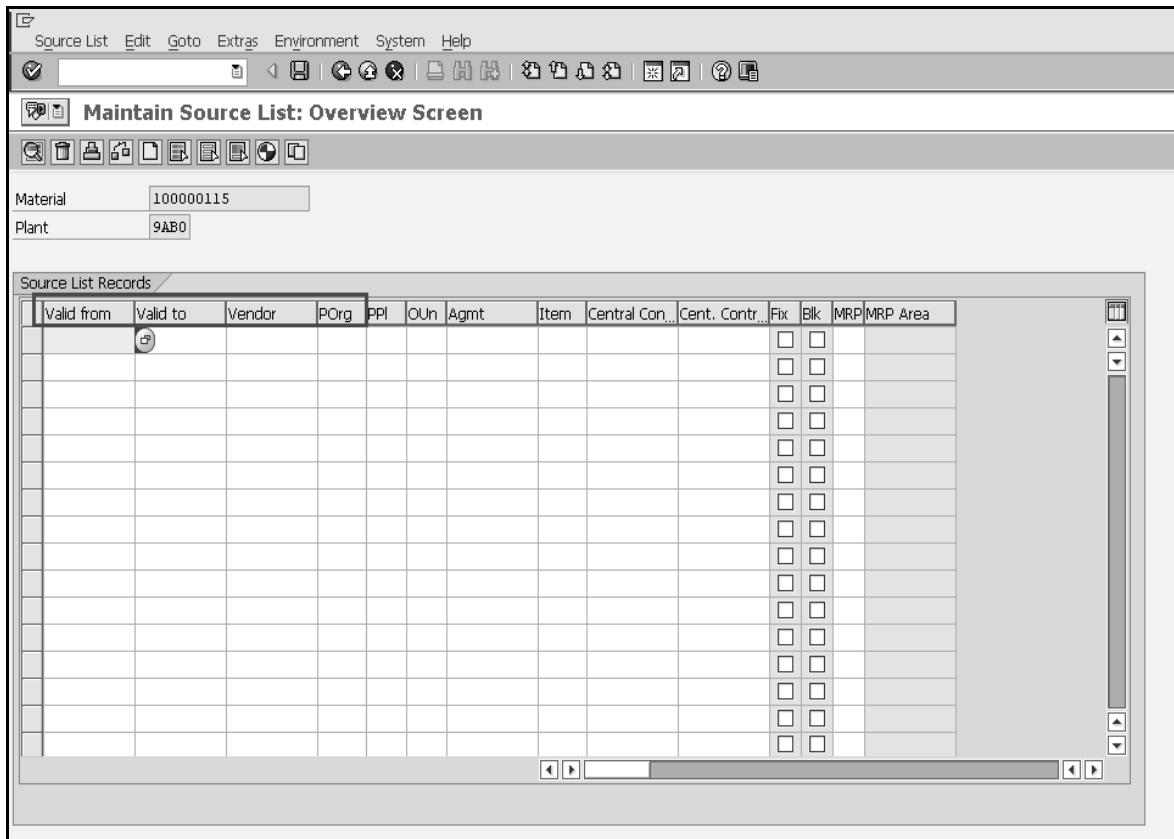
Step 1: On the SAP Menu screen, click Maintain by following the above path.



Step 2: Enter the material number for which you want to maintain the source list and respective plant details.



Step 3: Fill in all the necessary details such as valid periods, name of vendor, purchasing organization, etc. Click on the Save icon. Source list for the material is now maintained.



11. PROCUREMENT CYCLE

Every organization acquires material or services to complete its business needs. The process of buying materials and obtaining services from vendors or dealers is called procurement. The steps required to procure material forms the procurement cycle. Every organization performs some common sequential steps to procure material in the right quantity at the right price. The important steps in a procurement cycle are as follows:

- Determination of Requirement
- Creating Purchase Order
- Posting Goods Receipt
- Posting Invoice

Determination of Requirement

This is the first step in a procurement cycle. It is the logical subdivision, where it is determined what material or services are required by the company, and which supplier can fulfill the requirement. A list of requirements is made and then it is approved by a senior authority within the organization. After approval, a formal list is made that is known as the purchase order with one more level of approval which is sent to the vendor.

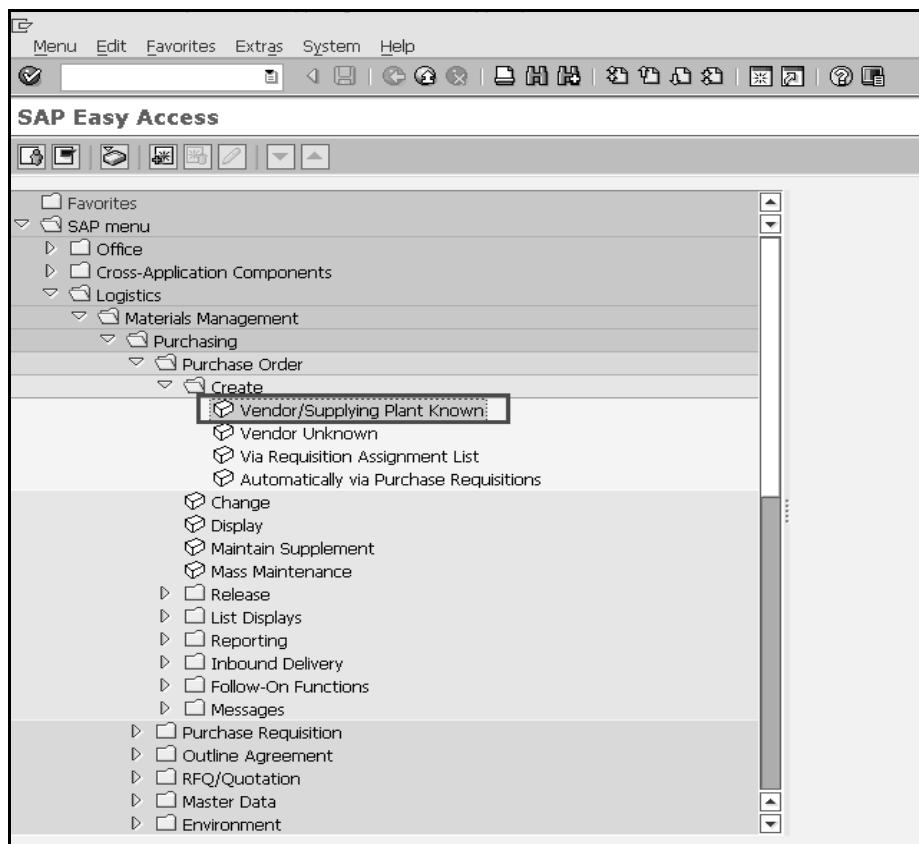
Creating Purchase Order

Purchase order is the formal and final confirmation of the requirements that is sent to the vendor to supply material or services. A purchase order includes important information such as name of the material with its corresponding plant, details of purchasing organization with its company code, name of vendor, and date of delivery. A purchase order can be created by following the steps given below:

Path to Create Purchase Order:

Logistics => Materials Management => Purchasing => Purchase Order =>
Create => Vendor/ Supplying Plant Known
TCode: ME21N

Step 1: On the SAP Menu screen, select Create Vendor/Supplying Plant Known by following the above path.



Step 2: Fill in all the necessary details such as name of the vendor, purchasing organization, purchasing group, company code, and details of the material, for example, material number, price, currency, and plant.

The screenshot shows the 'Create Purchase Order' screen. The top navigation bar includes Purchase Order, Edit, Goto, Environment, System, Help, and various icons. Below the bar, there are buttons for Document Overview On, Hold, Print Preview, Personal Setting, Save As Template, and Load from Template. The main area has tabs for NB Standard PO, Vendor, Doc. date (set to 10/13/2014), and Delivery/Invoice, Texts, Address, Communication, Partners, Additional Data, Org. Data, Status, Confirmation, and Payment Processing. The 'Delivery/Invoice' tab is active. Below these tabs is a section for Purch. Org., Purch. Group, and Company Code. The main grid area displays a table with columns: S..., Item, A, I, Material, Short Text, PO Quantity, O..., C, Deliv. Date, Net Price, Curre..., Per, O..., Mati Group, Plnt, Stor. Location, B. At the bottom of the grid, there are buttons for Default Values and Add Planning. The footer shows an 'Item' button and a text field indicating '1 New Item'.

Step 3: Fill in all the necessary details under Item, by selecting the tabs as shown in the following screenshot:

- Invoice/Delivery Tab (Provide the tax code, Payment terms and conditions, and incoterms)
- Assignment Tab (Provide a valid G/L code, business area, and WBS element)

Click on Save. A new Purchase Order will be created.

The screenshot shows the SAP MM Purchase Order interface. At the top, the menu bar includes 'Purchase Order', 'Edit', 'Goto', 'Environment', 'System', and 'Help'. Below the menu is a toolbar with various icons. The main title is 'Standard PO 4501973546'. The document number '4501973546' is highlighted. The vendor information section shows '1116 FRE...' and 'Doc. date 10/14/2014'. The tabs at the top of the main area are 'Delivery/Invoice', 'Conditions', 'Texts', 'Address', 'Communication', 'Partners', 'Additional Data', 'Org. Data', 'Status', 'Confirmation', and 'Payment Processing'. The 'Delivery/Invoice' tab is selected. In the main grid, there is one row of data: Item 10, Material 100043451, PO Quantity 3EA, Deliv. Date 10/21/2014, Net Price 78.00 USD, Per EA, Matl Group 12 BEEF PR..., and Print MANT. Below the grid is a toolbar with icons for planning and scheduling. The bottom section shows the 'Item' tab selected, with sub-tabs for 'Material Data', 'Quantities/Weights', 'Delivery Schedule', 'Delivery', 'Invoice', 'Conditions', 'Additional Data', 'Texts', 'Delivery Address', 'Confirmations', and 'Co...'. Under 'Material Data', fields include 'Material group 120016', 'Revision Level', 'Vendor mat. no.', 'EAN/UPC', 'Vendor sub-range', 'Batch', and 'Vendor Batch'. A checkbox for 'InfoUpdate' is checked.

Posting Goods Receipt

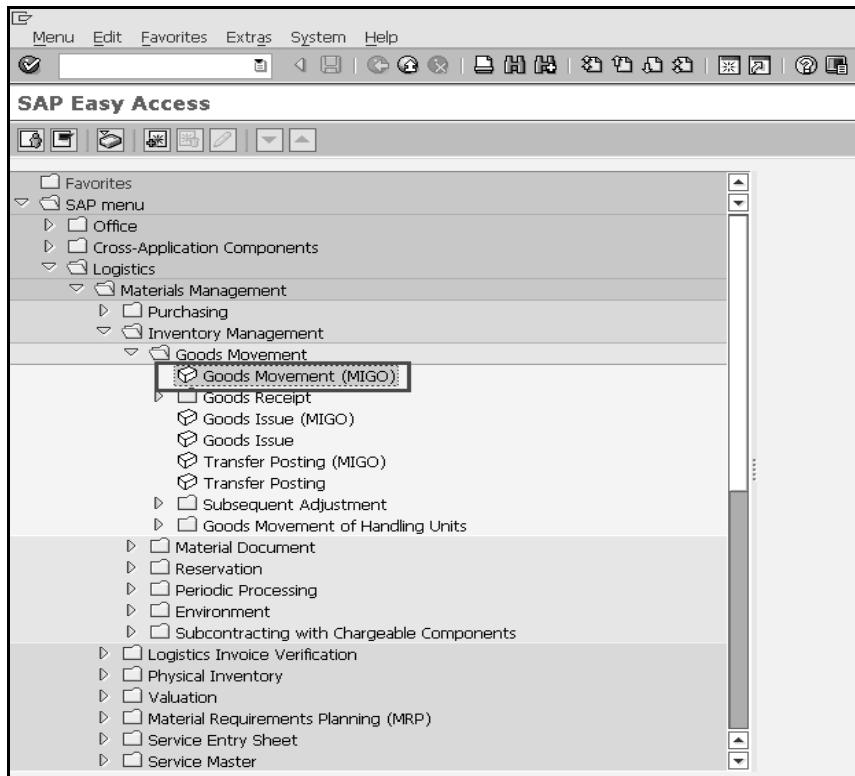
After processing the purchase order, the vendor delivers the material to the ordering party and this process is called Goods Receipt. It is the phase where the material is received by the ordering party and its condition and quality are verified. Once the material is verified against the predefined quality, a goods receipt is posted. Goods receipt can be posted by following the steps given below.

Path to Post Goods Receipt:

Logistics => Materials Management => Inventory management => Goods movement => Goods movement

TCode: MIGO

Step 1: On the SAP Menu screen, select Goods movement (MIGO) by following the above path.



Step 2: Fill in all the necessary details such as movement type (101 for goods receipt), name of the material, quantity received, details of storage location and the plant where the material will be placed. Click on Save. Goods Receipt is now posted for the material.

The screenshot shows the Goods Receipt Order screen. The top status bar displays "GR goods receipt 101". The main area has tabs for "General" and "Scraping". Under "General", there are fields for "Document Date" (10/14/2014), "Delivery Note" (empty), "Posting Date" (10/14/2014), "Doc.Header Text" (empty), and a checkbox for "1 Individual Slip". Below this is a table with columns: Line, Mat. Short Text, OK, Qty in UnE, EUn/Sloc, Batch, Valuation T, M, Stock Type, Print, Sp., Sales Order. At the bottom, there are buttons for "Add", "Delete", "Contents", and "Print". A navigation bar at the bottom includes "Material", "Quantity", and "Where".

Posting Invoice

Invoice is received from the vendor after goods receipt, and then the invoice is verified by the ordering party. This is the phase where the vendor (seller) is paid from the company and reconciliation of the invoice and PO is accomplished. An invoice can be posted by following the steps given below:

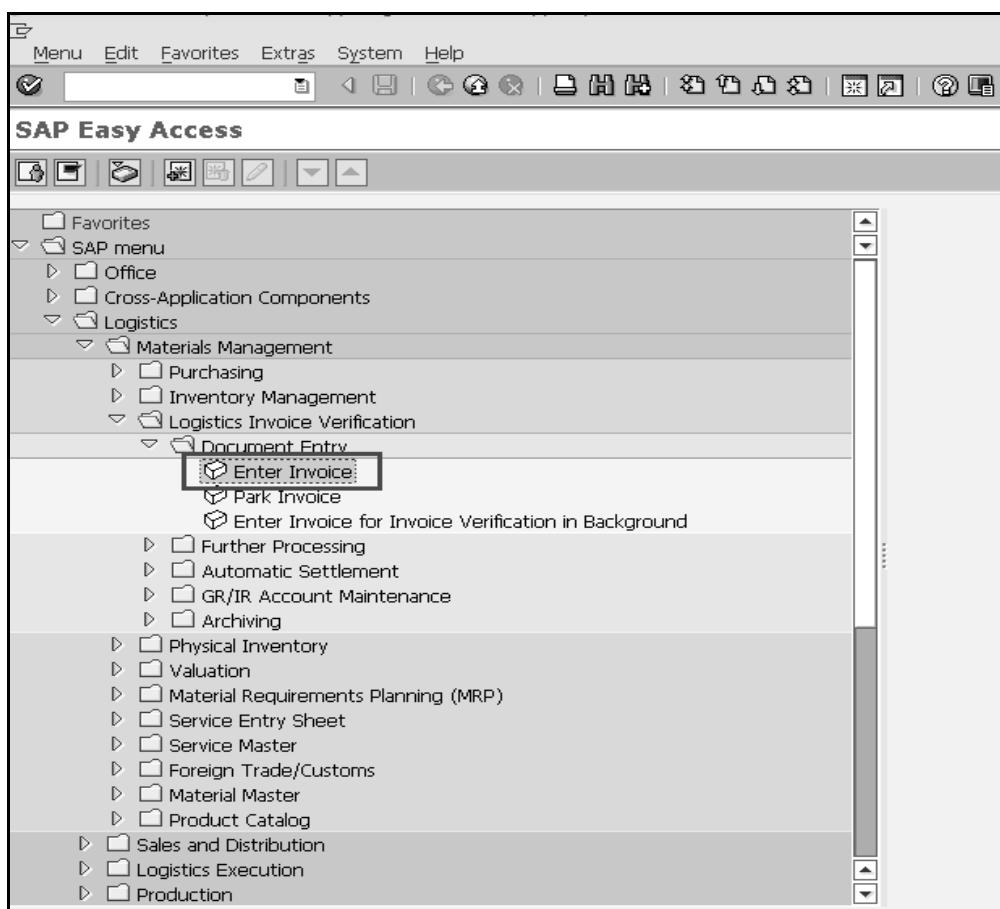
Path to Post Invoice:

Logistics => Materials Management => Logistic Invoice verification =>

Document Entry => Enter Invoice

TCode: MIRO

Step 1: On the SAP Menu screen, select Enter Invoice by following the above path.



Step 2: Fill in all the necessary details such as invoice posting date, amount that is paid to the vendor along with the quantity for which the amount is paid. Click on Save. Invoice is now posted for the goods receipt.

Invoice Document Edit Goto System Help

Enter Incoming Invoice: Company Code 0001

Show PO structure Show worklist Hold Simulate Messages Help

Transaction 1 Invoice Balance 0.00

Basic data Payment Details Tax Contacts Note

Invoice date Reference
Posting Date 10/14/2014
Amount Calculate tax
Tax amount V1
Text
Company Code 0001 SAP A.G. Walldorf
Imaged Document Identification Number
EDI Document Identification Number

PO Reference Chain Liab.

1 Purchase Order/Scheduling Agreement 1 Goods/service items
Layout 7_6310 All information

Item	Amount	Quantity	Or...	Purchase O...	Item	Smar...	PO Text

Item Search Term 0 / 0 Items

12. PURCHASE REQUISITION

Procurement in every organization starts with gathering requirements. Once requirements are gathered, we need to inform the purchasing organization. A Purchase Requisition is a document that contains a list of requirements. The key points to note about a purchase requisition are as follows:

- A purchase requisition is a request that is made to the purchasing organization to procure a certain list of materials.
- It is an internal document and remains within the organization.
- Purchase requisition needs approval from the purchasing organization.
- If a purchase requisition has already been approved, then it can be modified only to a limited extent.
- Purchase requisition can be created for the following procurement types:
 - **Standard:** Getting finished material from vendor.
 - **Subcontracting:** Providing raw material to vendor and getting finished material.
 - **Consignment:** Procuring material that is kept in company's premises and paying to vendor for that.
 - **Stock transfer:** Getting material from within the organization.
 - **External service:** Getting services like maintenance from a third-party vendor.

Create Purchase Requisition

A Purchase Requisition can be created by following the steps given below:

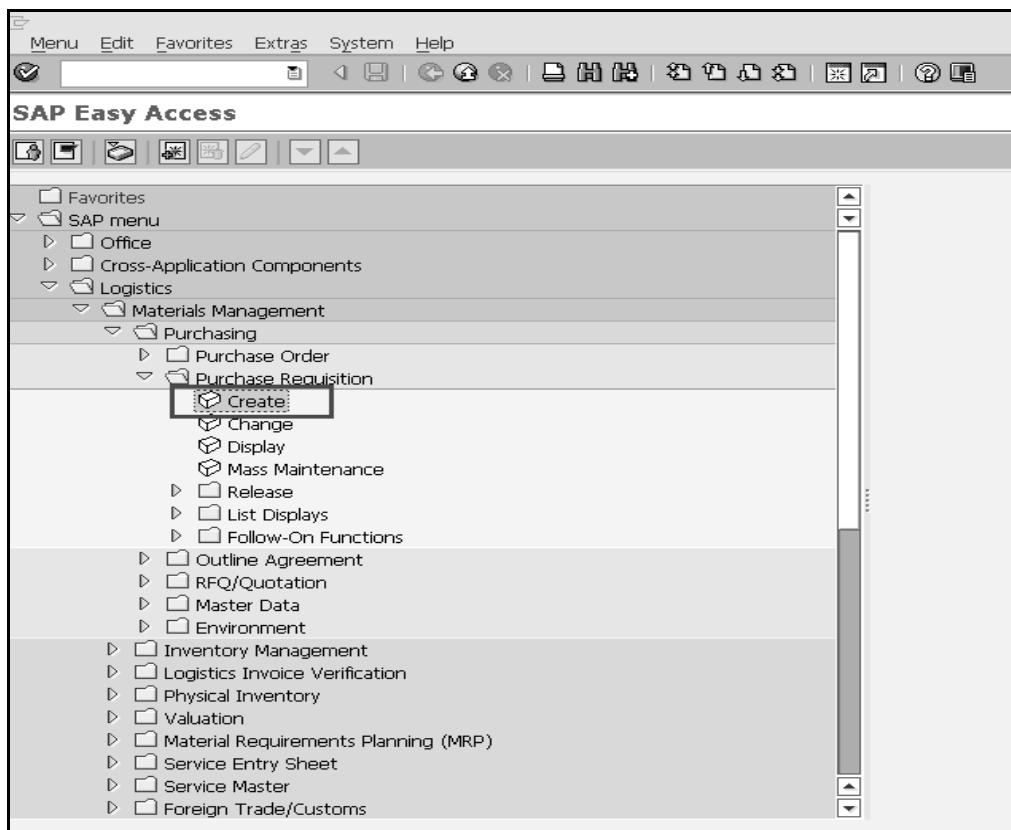
Path to Create Purchase requisition:

Logistics => Materials Management => Purchasing => Purchasing Requisition

=> Create

TCode: ME51N

Step 1: On the SAP Menu screen, select the Create execute icon by following the above path.



Step 2: Fill in all the required details such as name of the material, quantity, delivery date, material group, and plant. Click on Save. A new Purchase Requisition will be created.

The screenshot shows the 'Create Purchase Requisition' screen. At the top, there are tabs for Document Overview On, Personal Setting, Save As Template, and Load from Template. Below this is a header section with fields for Document Number (ZNB PURCHASE REQ...) and Source Determination. The main area is a grid for entering purchase requisition items. The first item in the grid has the following details:

St.	Item A	Material	Short Text	Quantity	Unit	Delivery Date	Matl Group	Plant	Stor. Loc.	PGr	Requisnr.	Tracking...	Des.Vendor	Fixed Vend
10		1100120	INT BRINE	4.000	KG	D 10/22/20...	12 PREF	HERI		E12				

Below the grid, there is a summary row for Item 1 [10] 110012098, INT BRINE MIX SUG&LE. At the bottom of the screen, there are tabs for Material Data, Quantities/Dates, Valuation, Source of Supply, Status, Contact Person, Release strategy, Texts, and Delivery Address. The Material Data tab is selected, showing fields for Material (110012098), Short Text (INT BRINE), Batch (empty), Revision Level (empty), Material Group (120040), and Vendor Mat. (empty).

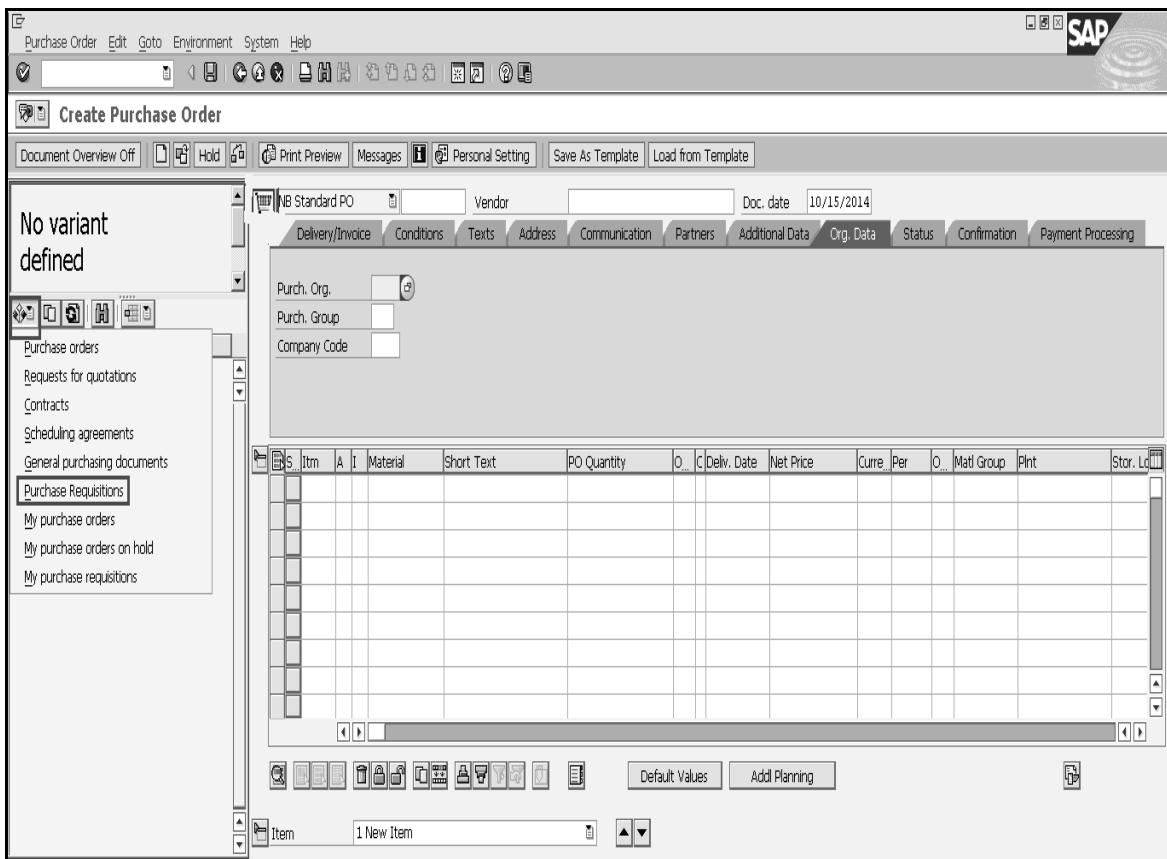
After creating a purchase requisition, we need to send our requirements to the vendor. It is done through a document that is known as the purchase order. A purchase order can be directly created from a purchase requisition.

Creating Purchase Order from Purchase Requisition

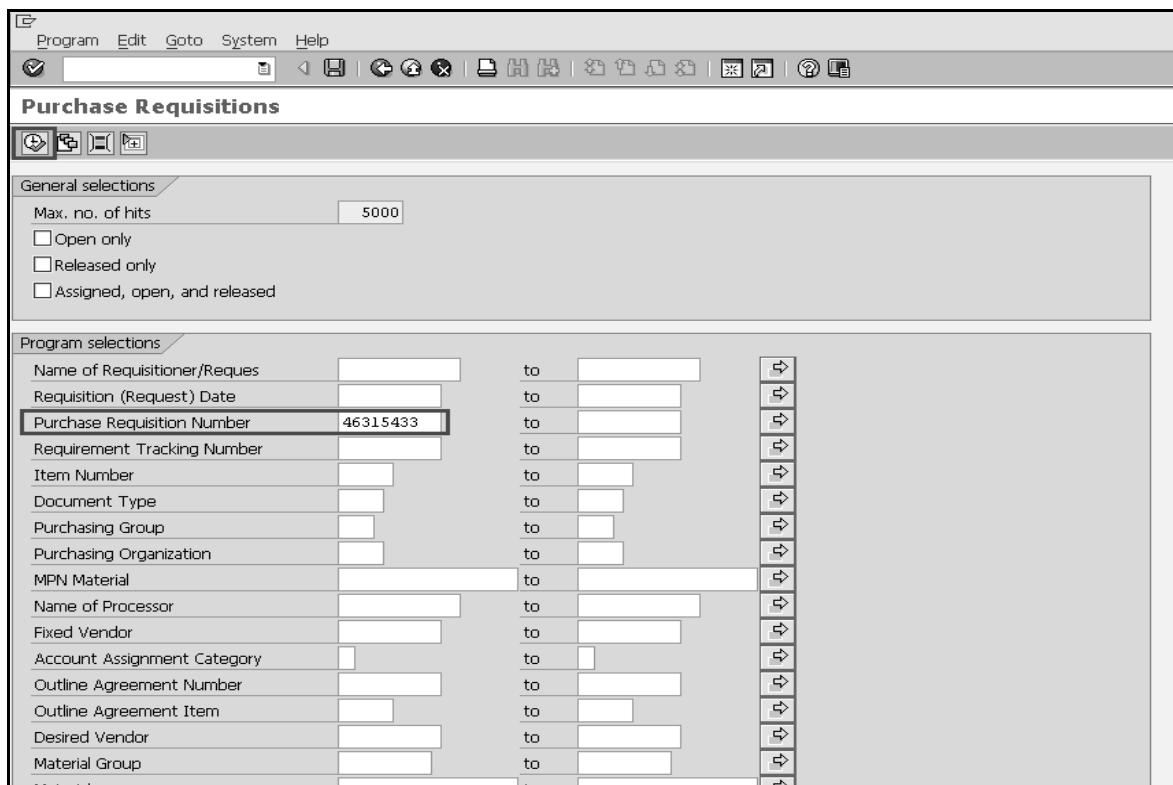
Follow the steps given below to create a purchase order from a purchase requisition.

Step 1: Enter TCode to go to the purchase order home screen. Select Purchase Requisition as shown in the following screenshot.

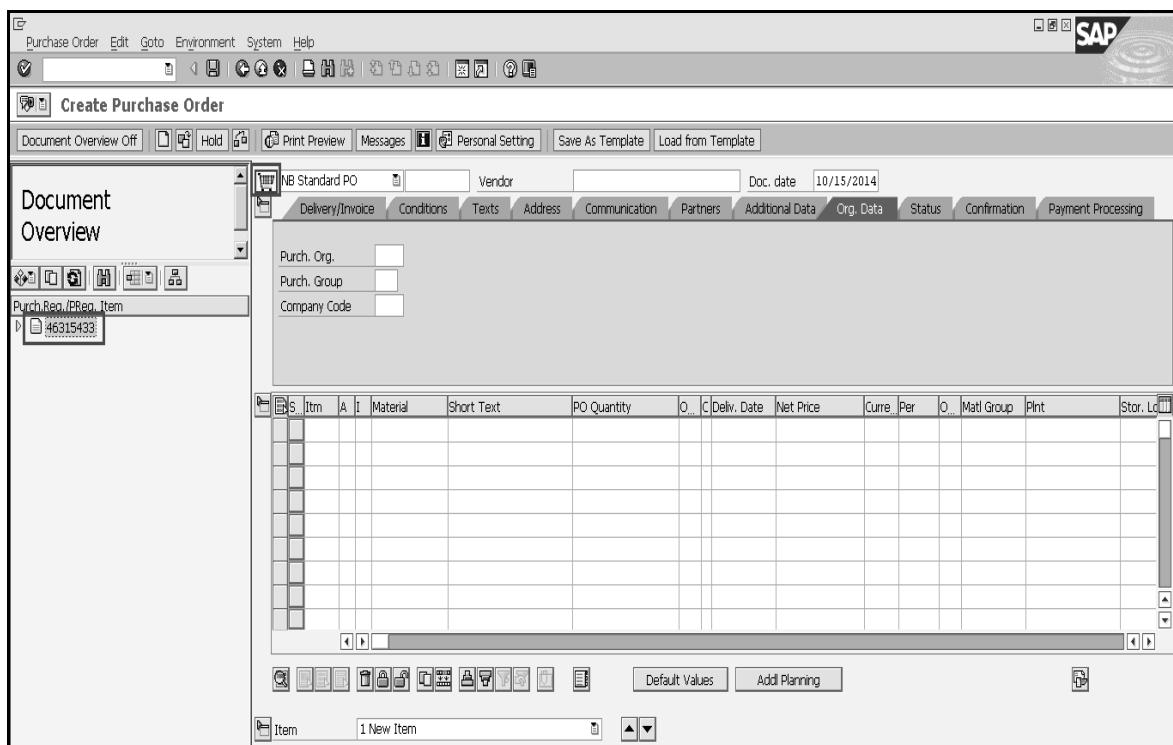
TCode: ME21N



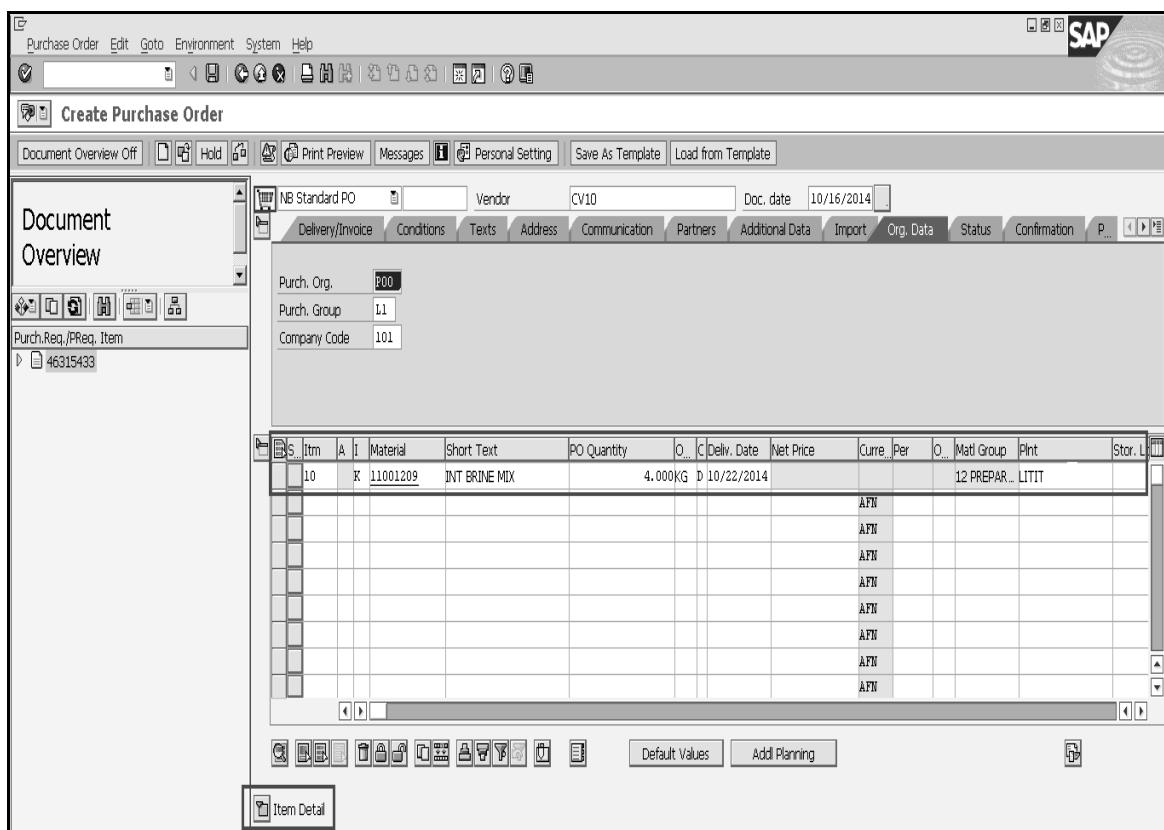
Step 2: Provide the purchase requisition number for which you want to create a purchase order. Then select the execute icon.



Step 3: Drag the standard reference Purchase Requisition to the cart next to the NB Standard PO.



Step 4: Verify the details of the purchase order and do the necessary changes as per requirement. Click on Save. You now have a purchase order from the selected purchase requisition.



13. REQUEST FOR QUOTATION

Vendor selection is an important process in the procurement cycle. Once requirements are gathered, we start looking for possible suppliers who can fulfill the requirements at the best possible price. So, a request is made to the vendors to submit their quotations indicating the price of the material along with their terms and conditions. This request is known as the request for quotation (RFQ). Listed below are the key points to note about a request for quotation:

- Request for quotation is a form of invitation that is sent to the vendors to submit a quotation indicating their pricing and terms and conditions.
- It contains details about goods or services, quantity, date of delivery, and date of bid on which it is to be submitted.
- Quotation is a reply by a vendor in response to a request for quotation.

An RFQ can be created by the following two ways:

- Manually
- Automatically from a Purchase Requisition

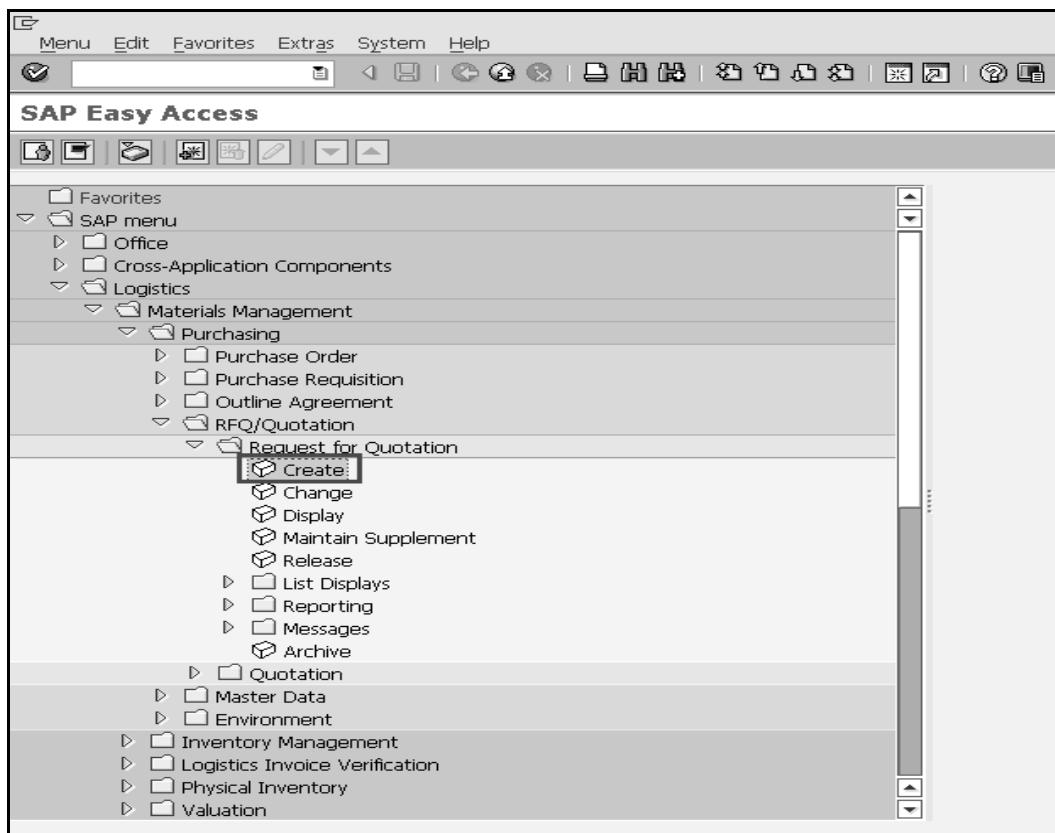
Manual Creation of RFQ

An RFQ can be created manually by following the steps given below:

Path to Create RFQ:

Logistics => Materials Management => Purchasing => RFQ/Quotation =>
Request for Quotation => Create
TCode: ME41

Step 1: On the SAP Menu screen, select the Create execute icon by following the above path.



Step 2: Fill in all the required details such as type of RFQ (if standard, then AN), language, date of RFQ, purchasing organization, and group.

The screenshot shows the 'Create RFQ : Initial Screen'. The fields filled in are:

- RFQ Type: AN
- Language Key: EN
- RFQ Date: 10/17/2014
- Quotation Deadline: checked
- RFQ: (empty field)

Below these, under 'Organizational Data', the fields are:

- Purch. Organization: P003
- Purchasing Group: A01

At the bottom, under 'Default Data for Items', the fields are:

- Item Category: (empty field)
- Delivery Date: T
- Plant: 1AC
- Storage Location: (empty field)
- Material Group: (empty field)
- Req. Tracking Number: (empty field)

Step 3: Provide the name of the material, quantity of material, material group, and quotation deadline date.

The screenshot shows the SAP MM interface for creating an RFQ. The title bar reads "Create RFQ : Item Overview". The top menu includes "RFQ", "Edit", "Header", "Item", "Environment", "System", and "Help". Below the menu is a toolbar with various icons. The main area displays the "RFQ Items" table. The table has columns: Item, I, Material, Short Text, RFQ Quantity, O..., C, Deliv. Date, Mat. Grp, Plnt, SLoc, D, Te... . A single row is visible, showing Item 10 with Material 100000001, RFQ Quantity 10.000 KG, Deliv. Date 11/07/2014, Mat. Grp 120028, and Plnt 1AC.

Step 4: Provide the quantity and delivery date for the material.

The screenshot shows the SAP MM interface for creating an RFQ, specifically for item 00010. The title bar reads "Create RFQ : Item 00010". The top menu and toolbar are identical to the previous screen. The main area is divided into sections: "Item Details" (Item 10, Material 100000001, ItCat., Plant 1AC), "Quantity and Date" (RFQ Quantity 10.000 KG, QuotDdl 10/24/2014, Delivery Date 11/07/2014), and "Deadline Monitoring" (1st Rem./Exped., 2nd Rem./Exped., 3rd Rem./Exped., No. Exped., TrackingNo, V. Mat.).

Step 5: Provide the vendor address (street number, city, country, pin code) to which you are addressing the RFQ. Click on Save. A new Request for Quotation will be created.

RFQ		Company Code	1015	Purch. Group	A0
RFQ Date	10/17/2014	RFQ Type	AN	Purchasing Org.	P001
Vendor		Supplying Plant	9AD		
Name Title: <input type="text"/> Name: CML_1085 <input type="button" value="+"/> Search Terms Search term 1/2: V2					
Street Address Street/House number: EVERT VAN 378 Postal Code/City: 1118 CZ SCHIPHOL Country: NL <input type="button" value="+"/> Region: <input type="text"/> Time zone: CE_					
PO Box Address PO Box: 758. <input type="button" value="+"/> Postal code: 1118 Company postal code: <input type="text"/>					

Automatic Creation of RFQ from Purchase Requisition

RFQ can also be created with reference to purchase requisition by following the steps given below:

Step 1: On the home screen of RFQ, select Reference to PReq tab.

Create RFQ : Initial Screen

RFQ Type: AN
Language Key: EN
RFQ Date: 10/17/2014
Quotation Deadline:
RFQ:

Organizational Data:

- Purch. Organization: P001
- Purchasing Group: A01

Default Data for Items:

- Item Category:
- Delivery Date: T
- Plant: IAC
- Storage Location:
- Material Group:
- Req. Tracking Number:

Step 2: Enter the requisition number for which you want to create an RFQ. Click on Save. A new Request for Quotation will be created with reference to Purchase Requisition.

Create RFQ : Initial Screen

RFQ Type: Purchase Req.

Language: EN

RFQ Date:

Quotation:

RFQ:

Organizational Data:

- Purch. Organization: P001
- Purchasing Group: A01

Default Data for Items:

- Item Category:
- Delivery Date: T
- Plant: IAC
- Storage Location:
- Material Group:
- Req. Tracking Number:

Selection of Purchase Requisitions

Purchase Req.	<input type="text"/>
Requisit Item	<input type="text"/>
Purch. Group	A01 <input type="text"/>
Document Type	<input type="text"/>
Material	<input type="text"/>
MPN Material	<input type="text"/>
Plant	<input type="text"/>
Item Category	<input type="text"/>
Acct Assgt Cat.	<input type="text"/>
Tracking Number	<input type="text"/>
Supplying Plant	<input type="text"/>
<input checked="" type="checkbox"/> Assigned	
<input checked="" type="checkbox"/> Stock material	
<input checked="" type="checkbox"/> Open only	

Req. Track:

14. OUTLINE AGREEMENT

Vendor selection is an important process in the procurement cycle. Vendors can be selected by quotation process. After having shortlisted a vendor, an organization enters into an agreement with that particular vendor to supply certain items with certain conditions. Typically when an agreement is reached, a formal contract is signed with the vendor. So, an outline agreement is a long-term purchasing agreement with a vendor.

The key points to note about an outline agreement are as follows:

- An outline agreement is a long-term purchasing agreement with a vendor containing terms and conditions regarding the material that is to be supplied by the vendor.
- The terms of an outline agreement are valid up to a certain period of time and cover a certain predefined quantity or value.

An outline agreement can be of the following two types:

- Contract
- Scheduling Agreement

Contract

A contract is a long-term outline agreement between a vendor and an ordering party over a predefined material or service over a certain framework of time. There are two types of contracts:

- **Quantity Contract:** In this type of contract, the overall value is specified in terms of the total quantity of material to be supplied by the vendor.
- **Value Contract:** In this type of contract, the overall value is specified in terms of the total amount to be paid for that material to the vendor.

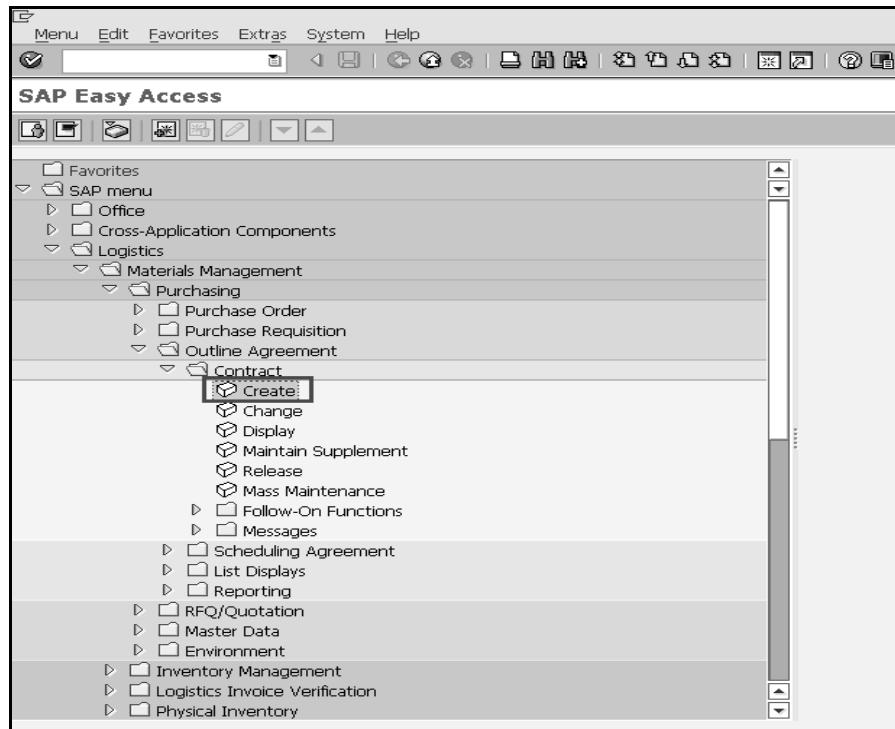
Follow the steps given below to create a contract.

Path to Create Contract:

Logistics => Materials Management => Purchasing => Outline Agreement => Contract => Create

TCode: ME31K

Step 1: On the SAP Menu screen, select the Create execute icon by following the above path.



Step 2: Provide the name of the vendor, type of contract, purchasing organization, purchasing group, and plant along with the agreement date.

The screenshot shows the 'Create Contract : Initial Screen' dialog box. The main fields filled are Vendor (65000000), Agreement Type (blank), Agreement Date (10/17/2014), and Purch. Organization (P001). A modal window titled 'Restrict Value Range (1) 5 Entries found' is open, showing two entries:

Type	Doc. Type Descrip.
MK	Quantity Contract
WK	Value Contract

Step 3: Fill in all the necessary details such as the agreement validity start date, end date, and pay terms (i.e. terms of payment).

The screenshot shows the SAP MM 'Create Contract : Header Data' screen. It includes fields for Agreement (1015), Company Code (SR), Purchasing Group (P001), Supplying Plant (9AD), Agreement Type (MK), Vendor (PV9A), and various administrative fields like Agreement Date (10/17/2014), Item Number Interval (10), Subitem Interv. (1), Validity Start (10/17/2014), Validity End, Language (EN), and GR Message. The 'Terms of Delivery and Payment' section contains Payt Terms (DI), Targ. Val. (EUR), Payment in Days (1.26490), Exch. Rate, Incoterms (FO), and Payment in Days Net. The 'Reference Data' section includes Quotation Date, Quotation, Salesperson, Your Reference, Telephone, Our Reference, Suppl. Vendor (PV9A), Invoicing Party, and other reference fields.

Step 4: Provide material number along with the target quantity. Click on Save. A new Contract will be created.

The screenshot shows the SAP MM 'Create Contract : Item Overview' screen. It includes fields for Agreement (1015), Agreement Type (MK), Agmt Date (10/17/2014), Vendor (PV9A), Supplying Plant (9AD), and Currency (EUR). The 'Outline Agreement Items' section is a grid where rows represent items from 10 to 160. Each row has columns for Item, Material, Short Text, Targ. Qty, O..., Net Price, Per, O..., Mat. Grp, Plnt, SLoc, I.SL..., D, and Te... . At the bottom, there is a search bar labeled 'Item'.

Scheduling Agreement

A scheduling agreement is a long-term outline agreement between the vendor and the ordering party over a predefined material or service, which are procured on predetermined dates over a framework of time. A scheduling agreement can be created in the following two ways:

- Creating scheduling agreement
- Maintain scheduling lines for the agreement

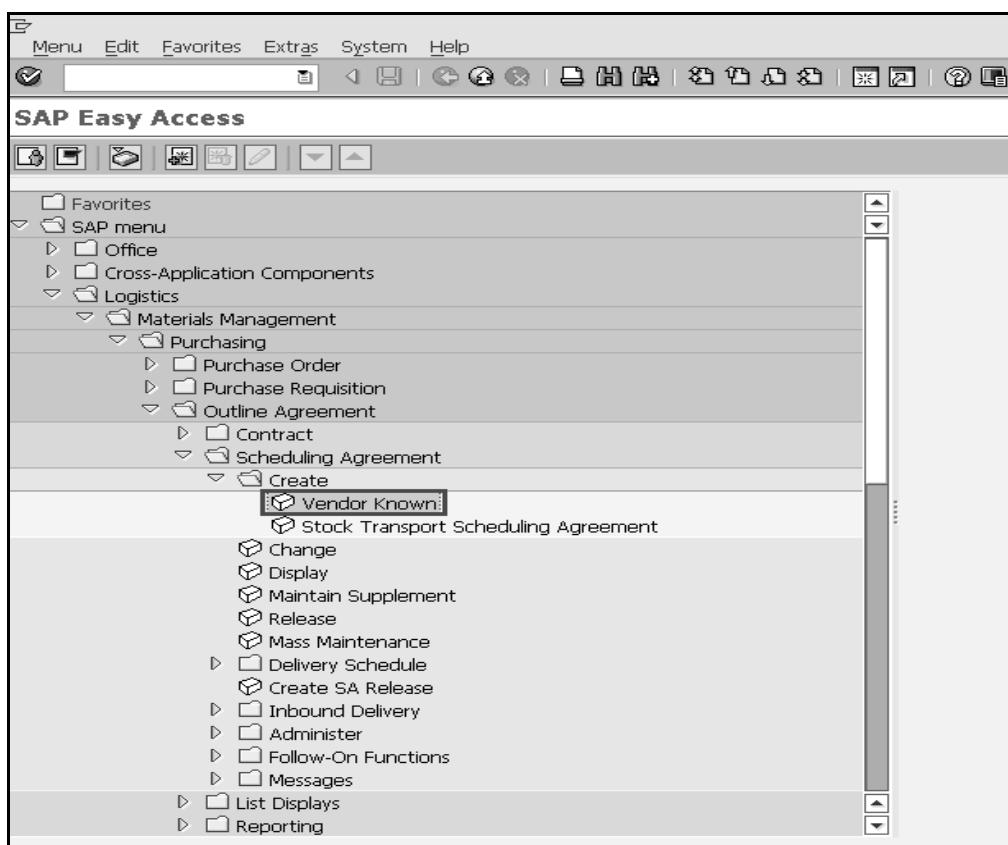
Creating Scheduling Agreement

Follow the steps given below to create a scheduling agreement.

Path to Create Scheduling Agreement:

Logistics => Materials Management => Purchasing => Outline Agreement => Scheduling Agreement => Create => Vendor Known
TCode: ME31L

Step 1: On the SAP Menu screen, select the Create execute icon by following the above path.



Step 2: Provide the name of the vendor, agreement type (LP for scheduling agreement), purchasing organization, purchasing group, plant along with agreement date.

Outline Agreement Edit Header Item Environment System Help

Reference to PReq Reference to RFQ Reference to Contract

Vendor: 8500002
Agreement Type: LP
Agreement Date: 10/17/2014
Agreement:

Organizational Data
Purch. Organization: P001
Purchasing Group: SR

Default Data for Items
Item Category:
Acct Assignment Cat.:
Plant: IAC
Storage Location:
Material Group:
Req. Tracking Number:
Vendor Subrange:
 Acknowledgment Reqd

Restrict Value Range (1) 4 Entries found

Type	Doc. Type Descript.
LP	Scheduling Agreement
LPA	Scheduling Agreement

4 Entries found

Step 3: Fill in all the necessary details such as the agreement validity start date, end date, and pay terms (i.e. terms of payment).

Scheduling Agreement Edit Header Item Environment System Help

Create Scheduling Agreement : Header Data

Agreement: 65000021 Company Code: 1015 Purchasing Group: A0
Agreement Type: LP Purch. Organization: P001

Vendor: 65000021

Administrative Fields
Agreement Date: 10/17/2014 Item Number Interval: 10 Subitem Interv.: 1
Validity Start: 10/17/2014 Validity End: Language: EN
 GR Message

Terms of Delivery and Payment
Payt Terms: NO Targ. Val.: USD
Payment in: 30 Days Exch. Rate: 1.00000 Ex.Rate Fx
Payment in: Days Incoterms: FO ORIGIN
Payment in: Days Net

Reference Data
Quotation Date: Quotation: _____
Your Reference: Salesperson: _____
Our Reference: Telephone: _____
Suppl. Vendor: Invoicing Party: _____

Step 4: Provide material number along with the target quantity, net price, currency, and material group. Click on Save. A new Scheduling Agreement will be created.

Item	I	A	Material	Short Text	Targ. Qty	O..	Net Price	Per	O..	Mat. Grp	Plnt	SLoc	D	Te...
10			1000000		50.000 KG		65.00	1	KG	1200				
20														
30														
40														
50														
60														
70														
80														
90														
100														
110														
120														
130														
140														
150														
160														

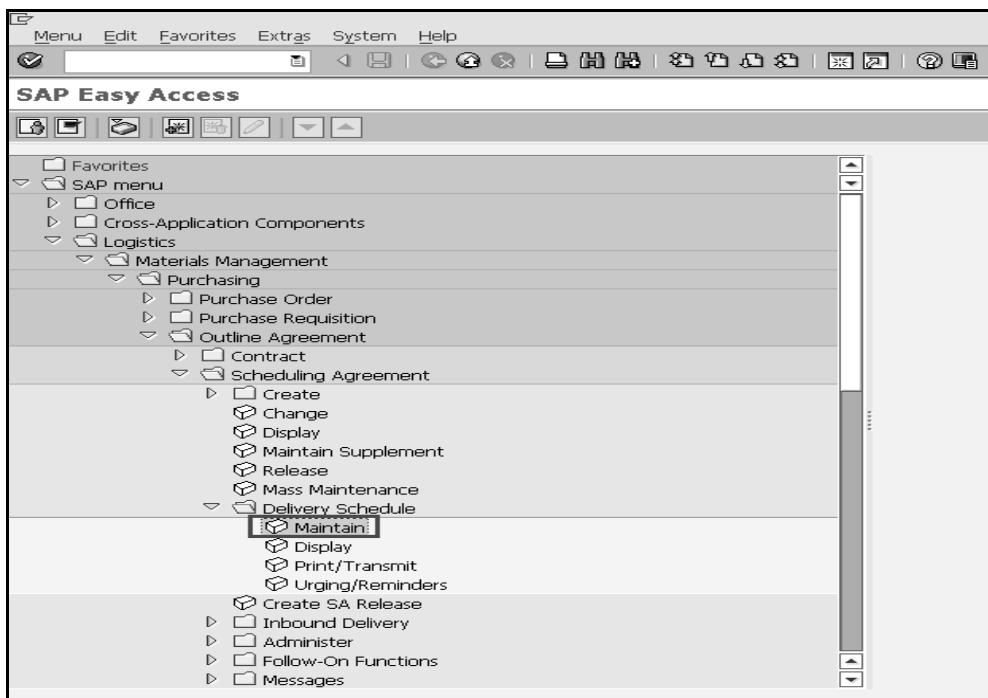
Maintain Scheduling Lines for the Agreement

Schedule lines can be maintained for a scheduling agreement by following the steps given below.

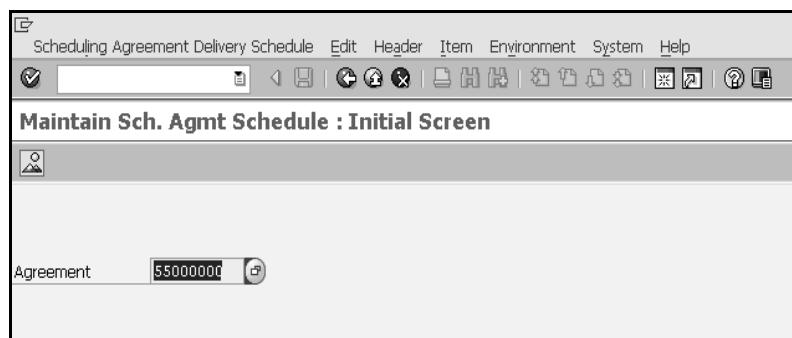
Path to Maintain Schedule Lines:

Logistics => Materials Management => Purchasing => Outline Agreement => Scheduling Agreement => Delivery Schedule => Maintain

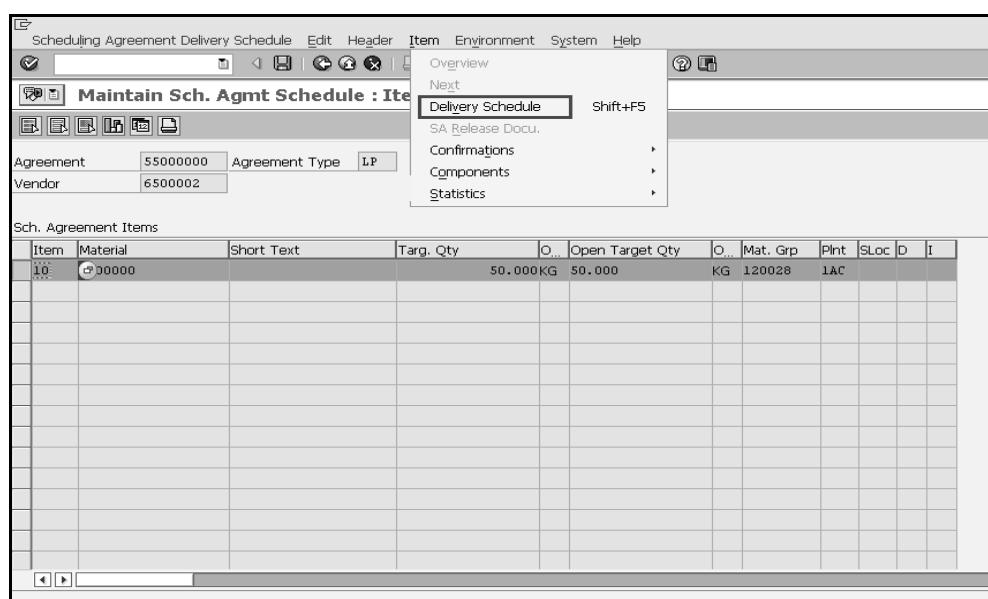
Step 1: On the SAP Menu screen, select the Maintain execute icon by following the above path.



Step 2: Provide the scheduling agreement number.



Step 3: Select the line item. Go to Item tab. Select Delivery Schedule.



Step 4: Provide the delivery schedule date and the target quantity. Click on Save. Schedule lines are now maintained for the scheduling agreement.

15. QUOTA ARRANGEMENT

A particular material can be procured from different vendors depending upon the requirement. In this way, the total requirement of a material is distributed to different vendors, i.e., the quota is assigned to each source of supply. This is known as quota arrangement. The key points to note about quota arrangement are as follows:

- Quota arrangement divides the total requirement of material among certain sources of supply, i.e. vendors, and then assigns a quota to each source.
- This particular quota specifies the portion of material that is to be procured from an assigned vendor or source.
- Quota rating is used to determine the amount of material that is to be assigned to a particular source or vendor. The source with the lowest quota rating represents a valid source.
- Quota rating can be calculated by using the following formula:

$$\text{Quota rating} = (\text{Quota Allocated Quantity} + \text{Quota Base Quantity})/\text{Quota}$$

where Quota Allocated Quantity is the total quantity from all orders that is procured from a particular source. Quota Base Quantity is the quantity from a new source of supply. Quota is the total requirement of material that is given to a particular source of supply.

- The mandatory setting before creating a quota is that the info record and the source list should be maintained for the particular material. Also, in the material master, the source list and quota arrangement usage check boxes should be checked. This setting can be made in the material master by going to TCode MM03. In purchasing view, check the quota arrangement usage and the source list. Setting is now maintained for quota arrangement.

The screenshot shows the SAP MM Change Material screen (ME11) for material 1100126. The window title is "Change Material 1100126". The "Purchasing" tab is selected. The form contains the following data:

Purchasing Group	N12	Material Group	120016
Plant-sp.matl status	<input type="checkbox"/>	Valid from	<input type="text"/>
Tax ind. f. material	1	Qual.f.FreeGoodsDis.	<input type="checkbox"/>
Material freight grp	<input type="text"/>	<input type="checkbox"/> Autom. PO	
<input checked="" type="checkbox"/> Batch management			
Purchasing values			
Purchasing value key	6	Shipping Instr.	<input type="text"/>
1st Reminder/Exped.	0 days	Underdel. Tolerance	10.0 percent
2nd Reminder/Exped.	0 days	Overdeliv. Tolerance	10.0 percent
3rd Reminder/Exped.	0 days	Min. Del. Qty in %	0.0 percent
StdValueDelivDateVar	0 days	<input type="checkbox"/> Unltd Overdelivery	<input type="checkbox"/> Acknowledgment Reqd
Other data / manufacturer data			
GR Processing Time	<input type="text"/> days	<input type="checkbox"/> Post to insp. stock	<input type="checkbox"/> Critical Part
Quota arr. usage	<input type="button"/>	<input type="checkbox"/> Source list	<input type="checkbox"/> JIT Sched. Indicator
Mfr Part Number	<input type="text"/>	<input type="checkbox"/> Mfr Part Profile	<input type="checkbox"/> Manufact.

Create Quota Arrangement

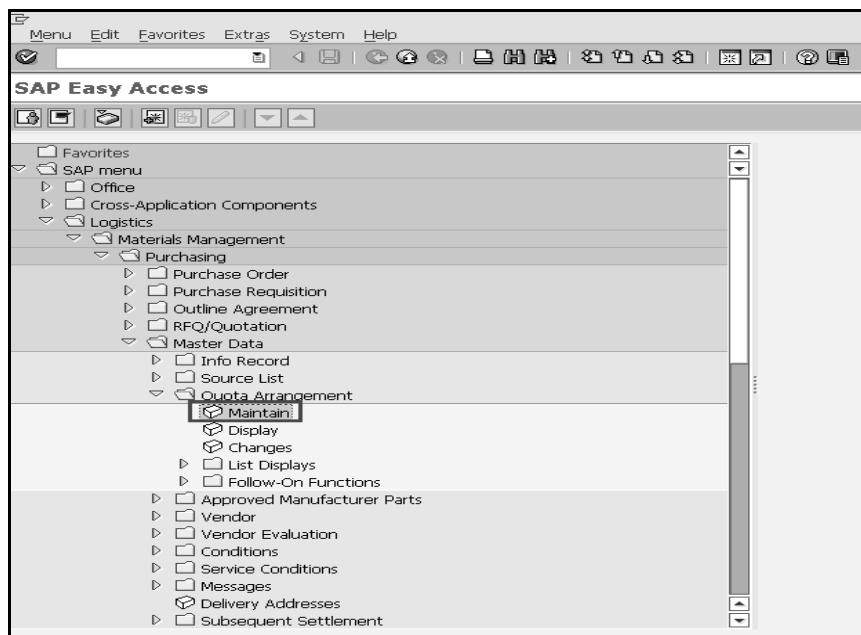
Quota arrangement divides the total requirement of a material among certain sources of supply, i.e., vendors. Follow the steps given below to create a quota arrangement.

Path to Create Quota Arrangement:

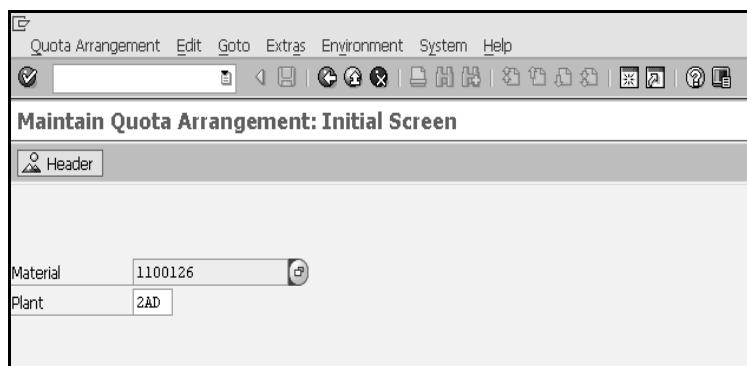
Logistics => Materials Management => Purchasing => Master Data => Quota Arrangement => Maintain

TCode: MEQ1

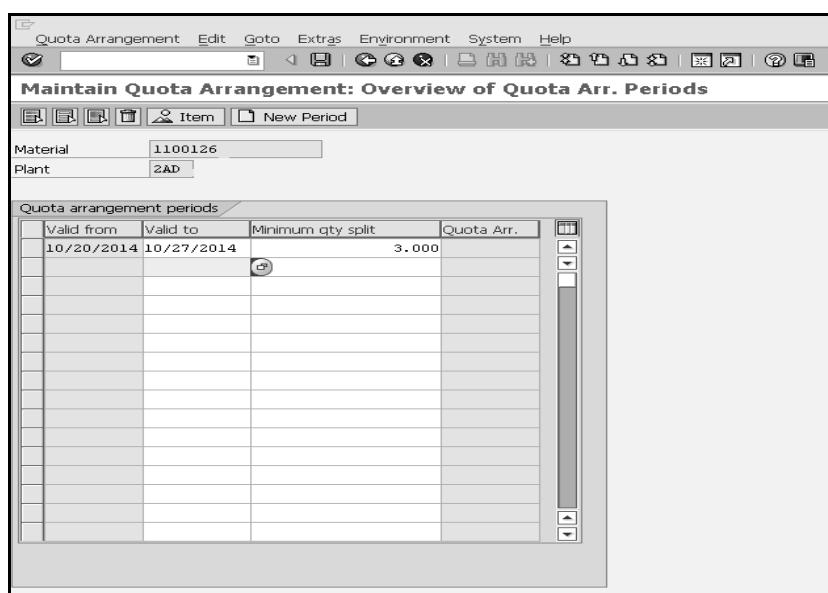
Step 1: On the SAP Menu screen, select the Maintain execute icon by following the above path.



Step 2: Enter the material number and plant for which quota arrangement needs to be maintained.



Step 3: Provide dates in 'valid from' and 'valid to' and value in 'quantity split'.



Step 4: Enter the name of vendors and the assigned allocated quantity to them. Click on Save. Quota arrangement is now maintained for the particular material.

16. POSTING PERIOD

SAP ERP systems were designed so that business can be conducted in an efficient way. Documents such as purchase order, request for quotation, goods receipt are essential elements in a business. These documents need security, i.e., if any of the documents is posted incorrectly, then the business can get affected at various levels. In order to secure these documents, we have a concept known as the **posting period**.

A posting period allows one to post and make changes in the documents only in a specific time period. Sometimes you will get errors like “posting allowed only in this time period for a certain company code”. It means for a particular company code, a posting period is maintained and posting to that document is only allowed within that period. A posting period for a company can be defined using five fields which are as follows:

- Maintain Fiscal Year Variant
- Assign Fiscal Year Variant to Company Code
- Define Variants for Open Posting Periods
- Assign Variant to Company Code
- Open and Close Posting Periods

Maintain Fiscal Year Variant

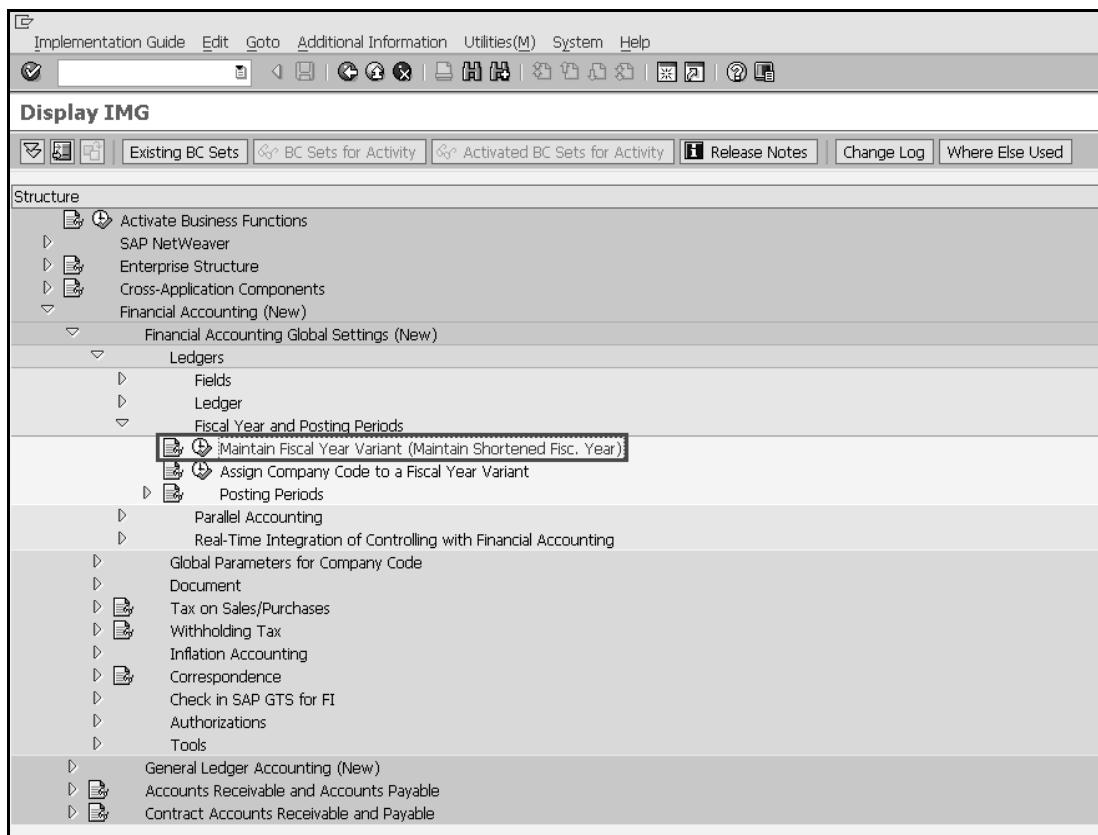
Fiscal year variant is the time period during which financial statements are withdrawn for a company. Different companies have different fiscal years. Fiscal year variant can be maintained by following the steps given below.

Path to Maintain Fiscal Year Variant:

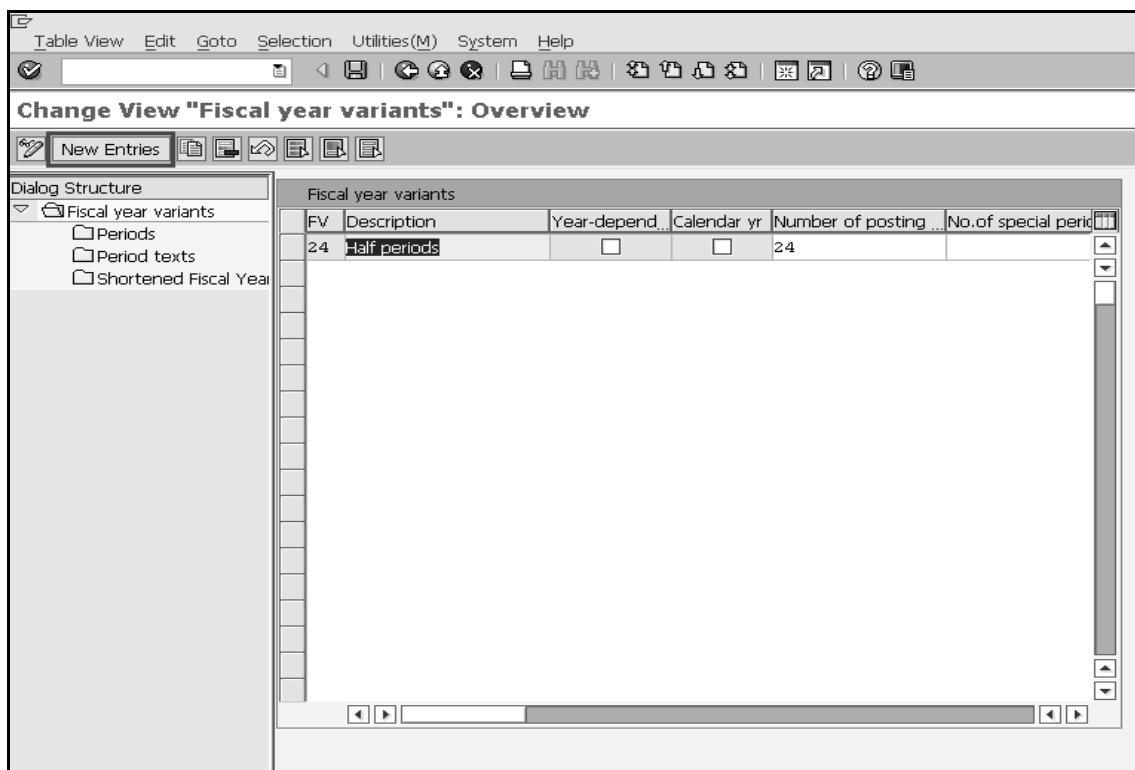
Financial accounting => Financial Accounting Global Settings => Ledgers => Fiscal Year and Posting Periods => Maintain Fiscal Year Variant

TCode: OB29

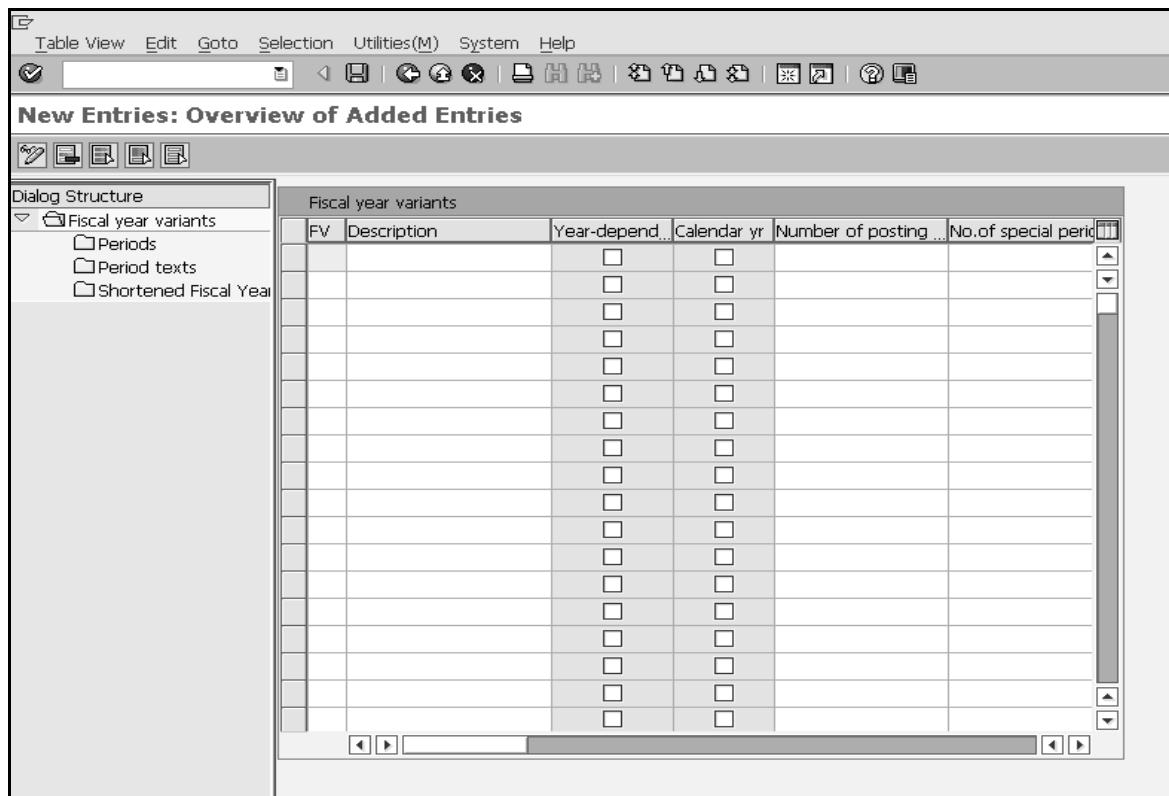
Step 1: On the Display IMG screen, select Maintain Fiscal Year Variant by following the above path.



Step 2: Click New Entries.



Step 3: Provide the name of the fiscal year variant along with the description and number of posting. Click on Save. A new Fiscal Year Variant will be created.



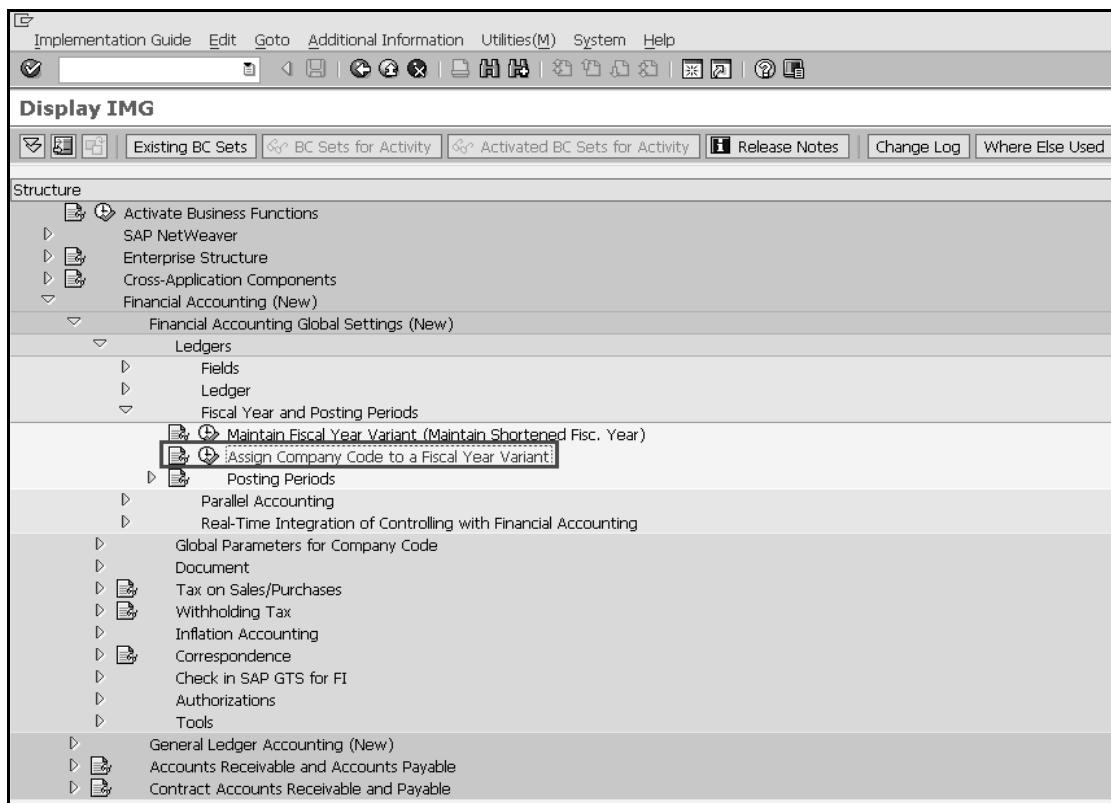
Assign Company Code to Fiscal Year Variant

Follow the steps given below to assign company code to the fiscal year variant.

Path to Assign Company Code to Fiscal Year Variant:

Financial accounting => Financial Accounting Global Settings => Ledgers => Fiscal Year and Posting Periods => Assign Company Code to Fiscal Year Variant
TCode: OB37

Step 1: On the Display IMG screen, select Assign Company Code to Fiscal Year Variant by following the above path.



Step 2: We can view the existing assignment and change it accordingly. Click on Save. Fiscal Year Variant is now assigned to company code.

The screenshot shows the SAP MM Change View "Assign Comp.Code -> Fiscal Year Variant": Overview. The menu bar includes Table View, Edit, Goto, Selection, Utilities(M), System, and Help. The toolbar has icons for search, copy, paste, and navigation. The title bar says "Change View 'Assign Comp.Code -> Fiscal Year Variant': Overview". The table has columns: CoCd, Company Name, Fiscal Year Variant, and Description. One row is visible:

CoCd	Company Name	Fiscal Year Variant	Description
0001	SAP A.G.	K4	Calendar year, 4 spec. periods

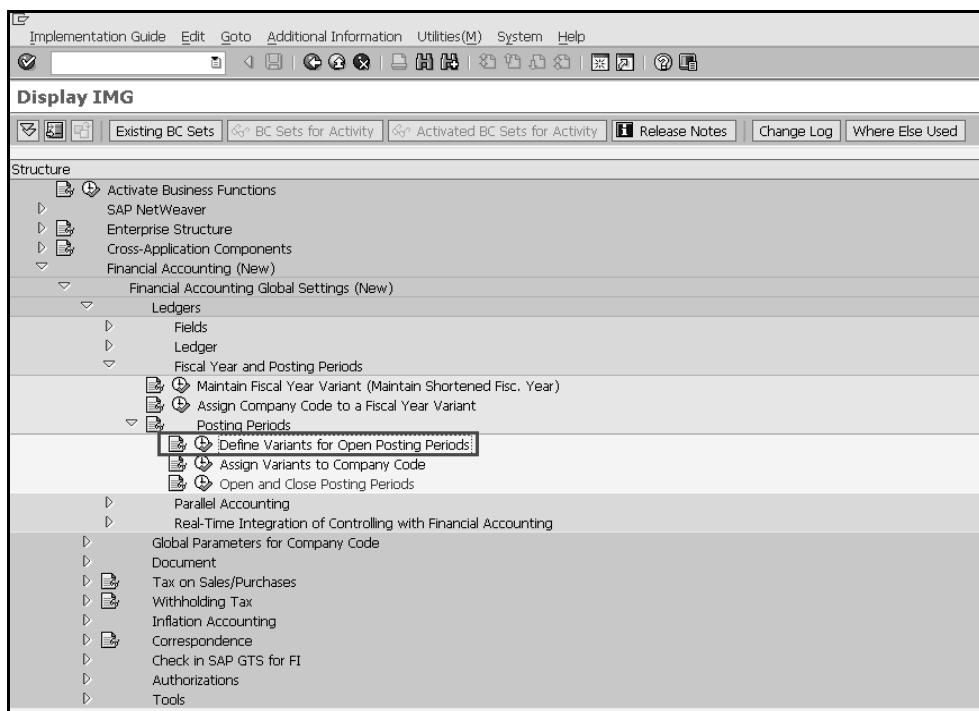
Define Variants for Open Posting Periods

Follow the steps given below to define variants for open posting periods.

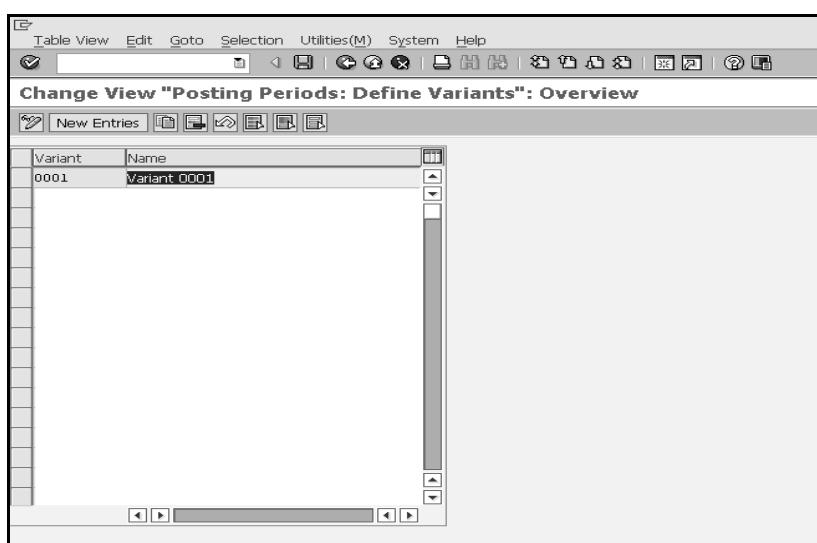
Path to Define Variants for Open Posting Periods:

Financial accounting => Financial Accounting Global Settings => Ledgers => Fiscal Year and Posting Periods => Posting Periods => Define Variants for Open Posting Periods
TCode: OBBO

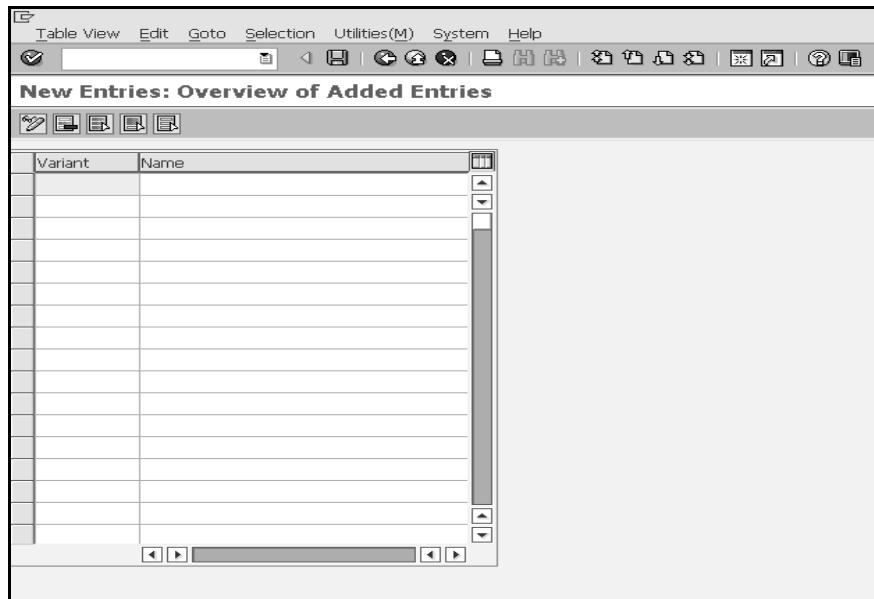
Step 1: On the Display IMG screen, select Define Variants for Open Posting Periods by following the above path.



Step 2: Click New Entries.



Step 3: Enter the name of the variant. Click on Save. A new Variant will be created for open posting periods.



Assign Variant to Company Code

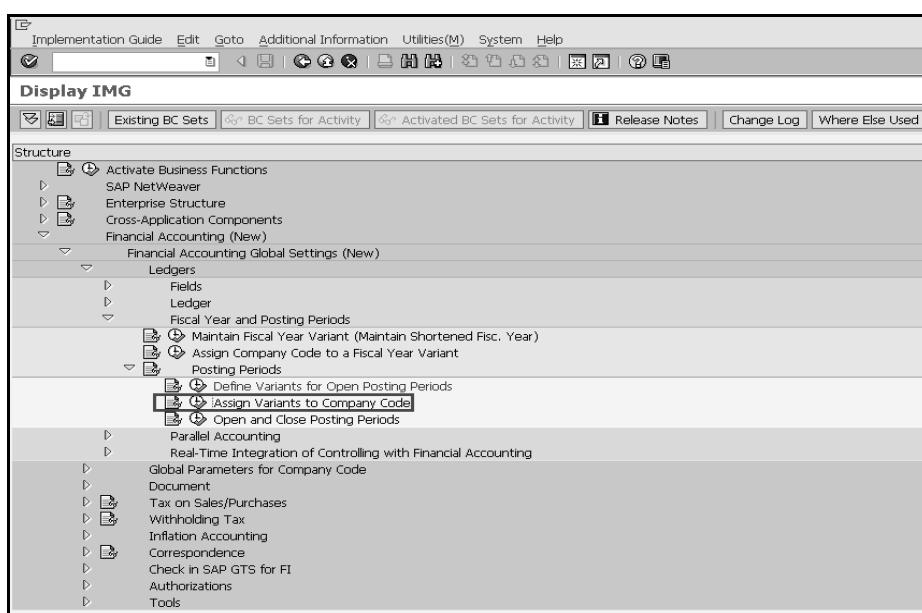
Follow the steps given below to assign a variant to company code.

Path to Assign Variant to Company Code:

Financial accounting => Financial Accounting Global Settings => Ledgers => Fiscal Year and Posting Periods => Posting Periods => Assign Variants to Company Code

TCode: OBBP

Step 1: On the Display IMG screen, select Assign Variants to Company Code by following the above path.



102

Step 2: We can view the existing assignment and change it accordingly. Click on Save. Variant is now assigned to company code.

CoCd	Company Name	City	Variant
0001	SAP A.G.	Walldorf	

Open and Close Posting Periods

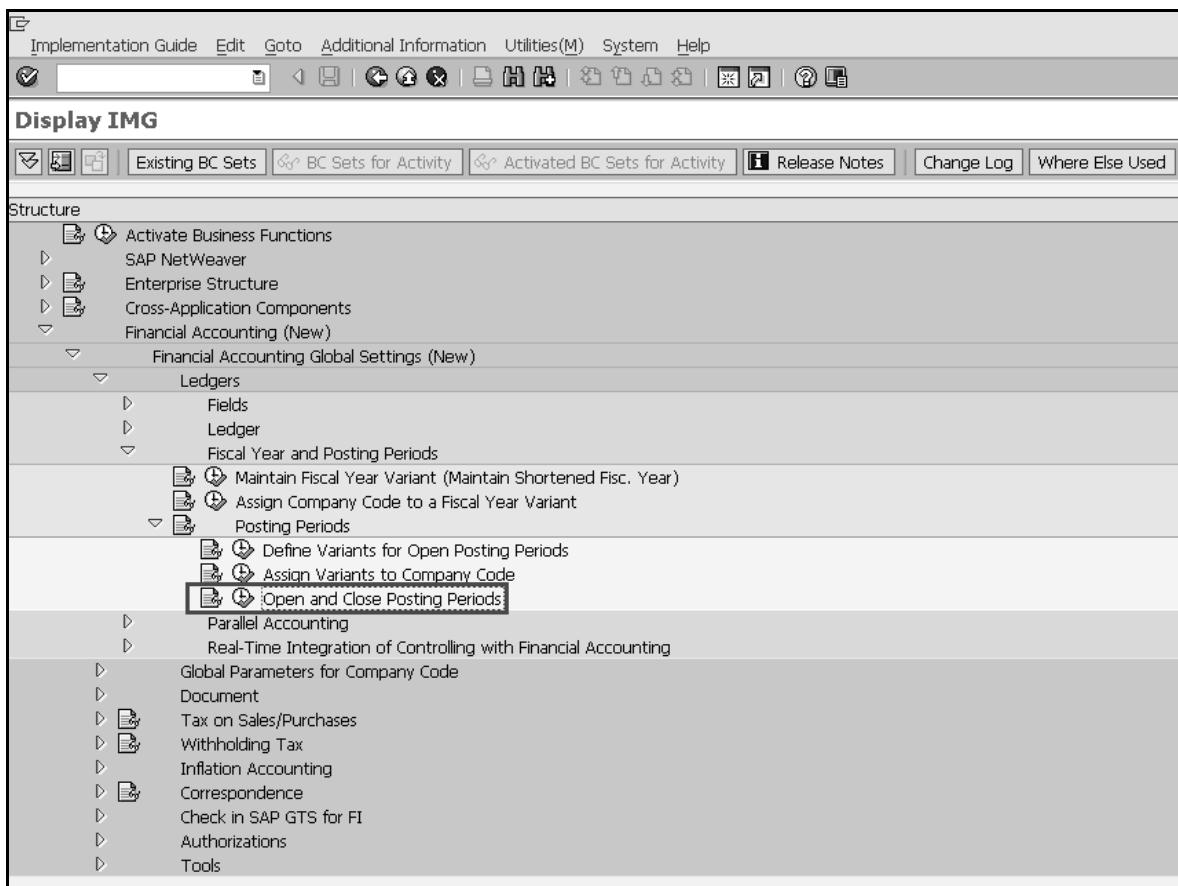
Posting period allows you to post and make changes in the documents only in a specific time period. Open and close posting periods can be maintained by following the steps given below.

Path to Open and Close Posting Periods:

Financial accounting => Financial Accounting Global Settings => Ledgers => Fiscal Year and Posting Periods => Posting Periods => Open and Close Posting Periods

TCode: OB52

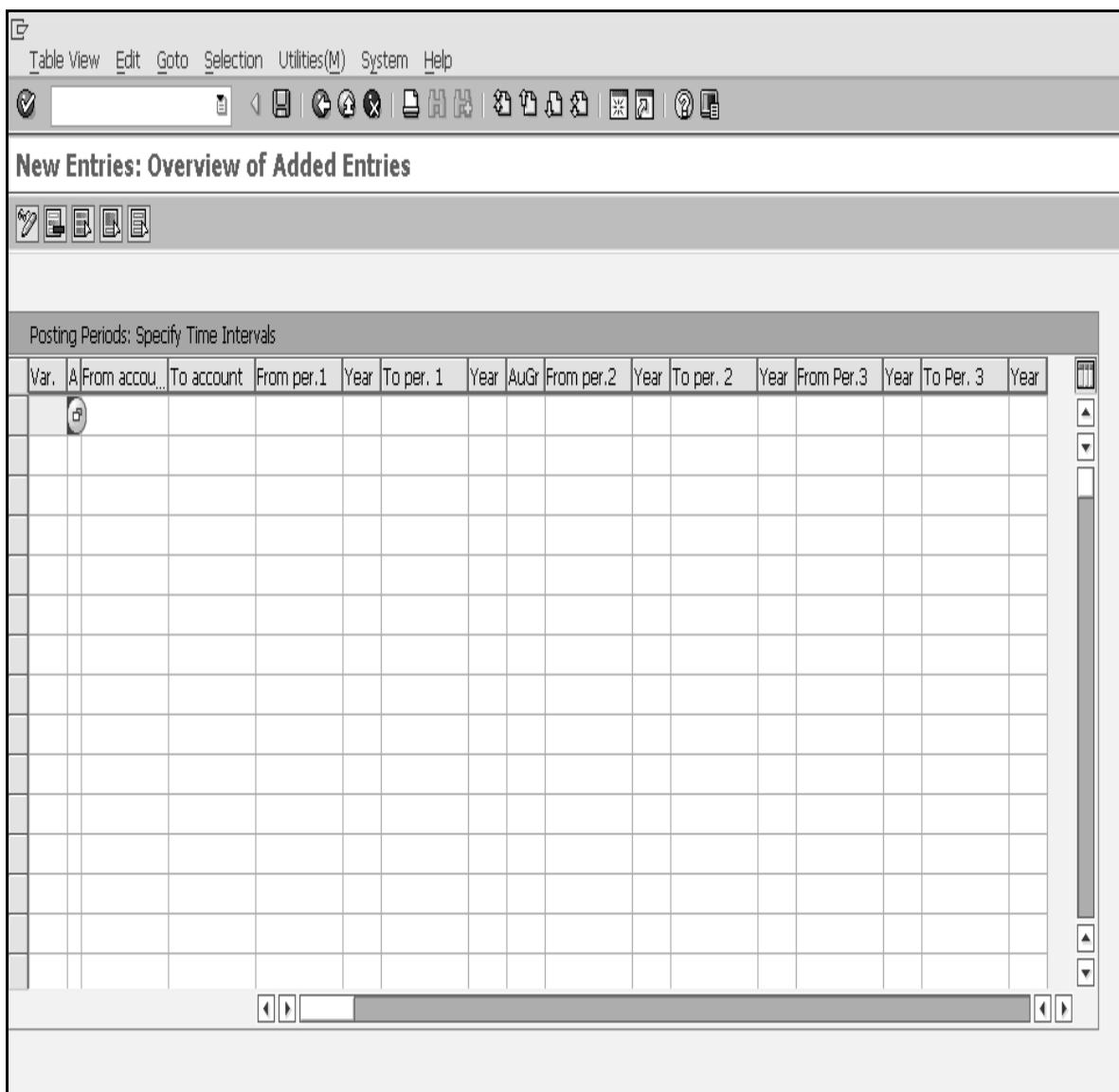
Step 1: On the Display IMG screen, select Open and Close Posting Periods by following the above path.



Step 2: Click New Entries.

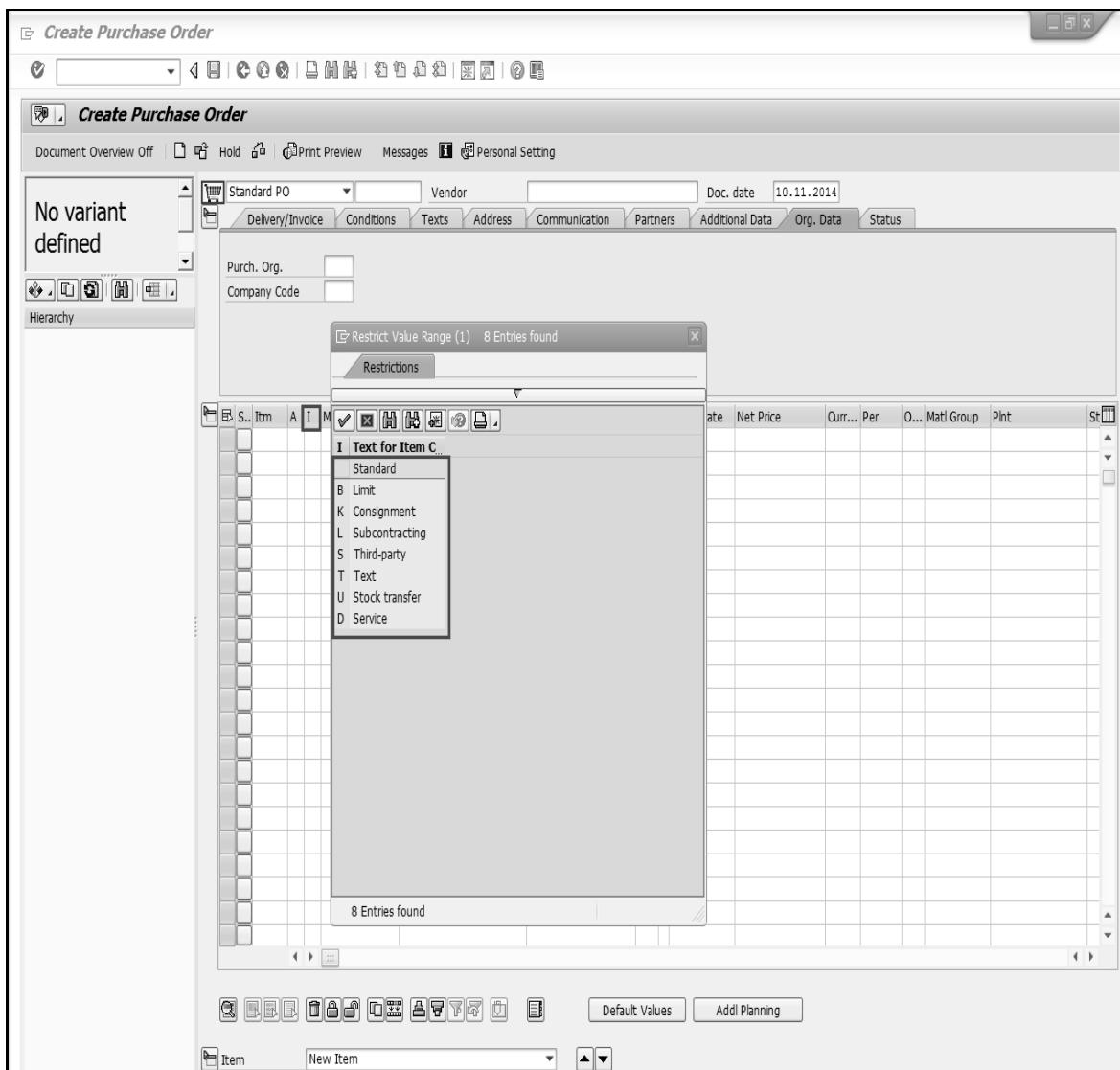
Var.	A	From accou...	To account	From per.1	Year	To per. 1	Year	AuGr	From per.2	Year	To per. 2	Year	From Per.3	Year	To Per. 3	Year
D	12210100	12210100	5	2015	5	2015										
1001 +			3	2015	5	2015										

Step 3: Provide the name of variant, account details, and the year allowed for posting. Click on Save. Posting Period is now maintained for the variant.



17. PURCHASE ORDER TYPES

SAP ERP was introduced so that procurement can be done efficiently in terms of time and cost. Procurement can be done for various types of goods and services. Procurement starts with creating a purchase order, i.e., a formal document given to vendors and it includes a list of goods and materials that are to be procured. Accordingly, purchase orders can be created for different types of procurement. The type of procurement can be maintained in a field that is known as **item category** as shown below.



For different procurement types, there are four types of purchase orders, which are as follows:

- Subcontracting Purchase Order
- Consignment Purchase Order
- Stock Transfer Purchase Order
- Service Purchase Order

Subcontracting Purchase Order

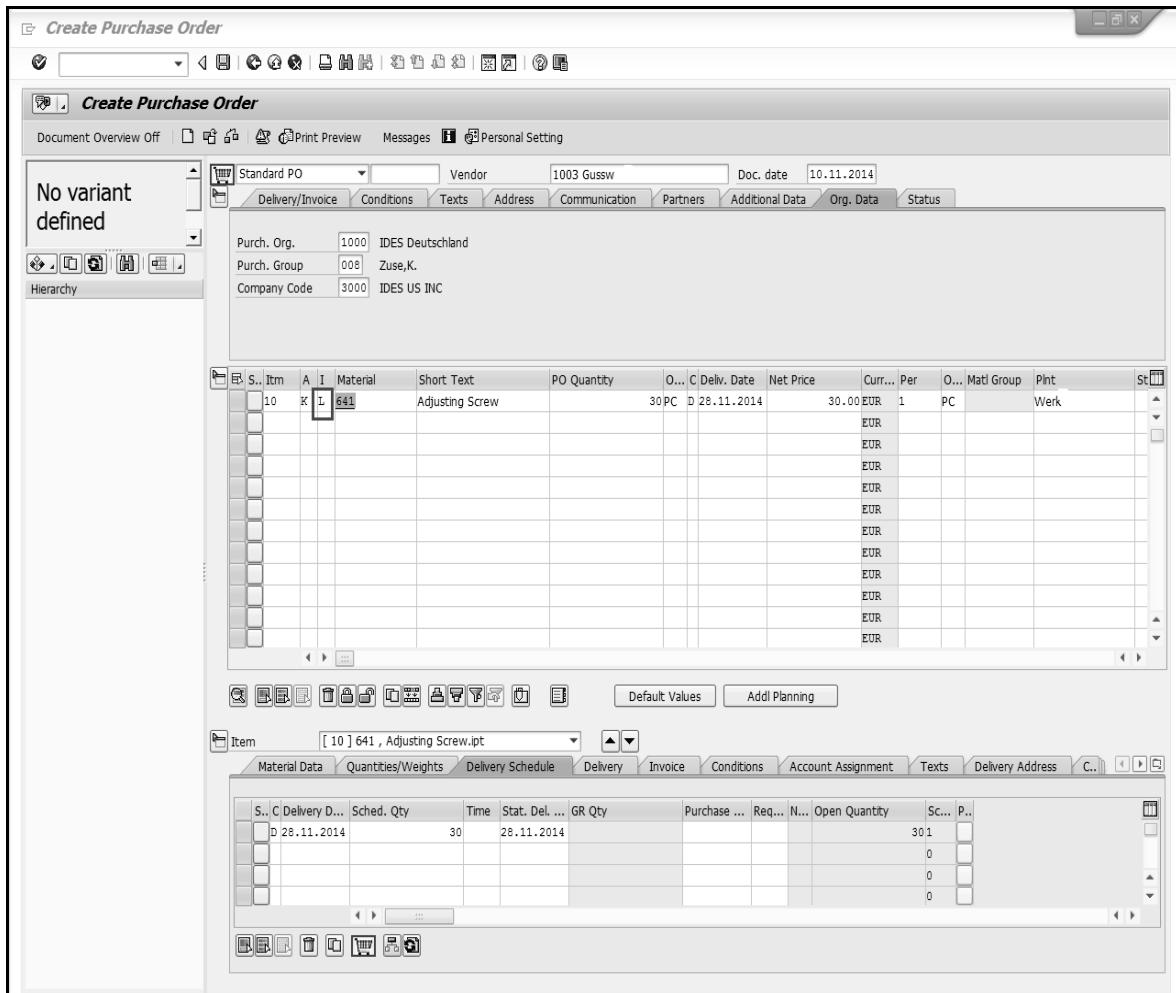
In subcontracting, the vendor (the subcontractor) receives components from the ordering party with the help of which it produces a product. The product is ordered by your company through a purchase order. The components required by the vendor (seller) to manufacture the ordered products are listed in the purchase order and provided to the subcontractor.

Follow the steps given below to create a subcontracting purchase order.

TCode to create Purchase Order: ME21N

Subcontracting Item Category: L

1. Provide the TCode in the command field.
2. It will take you to the purchase order screen.
3. Provide all the necessary details such as the name of the vendor, item category, name of material, plant for which material is procured, and the date of delivery.
4. Click on Save. Subcontracting Purchase order will be created.



Consignment Purchase Order

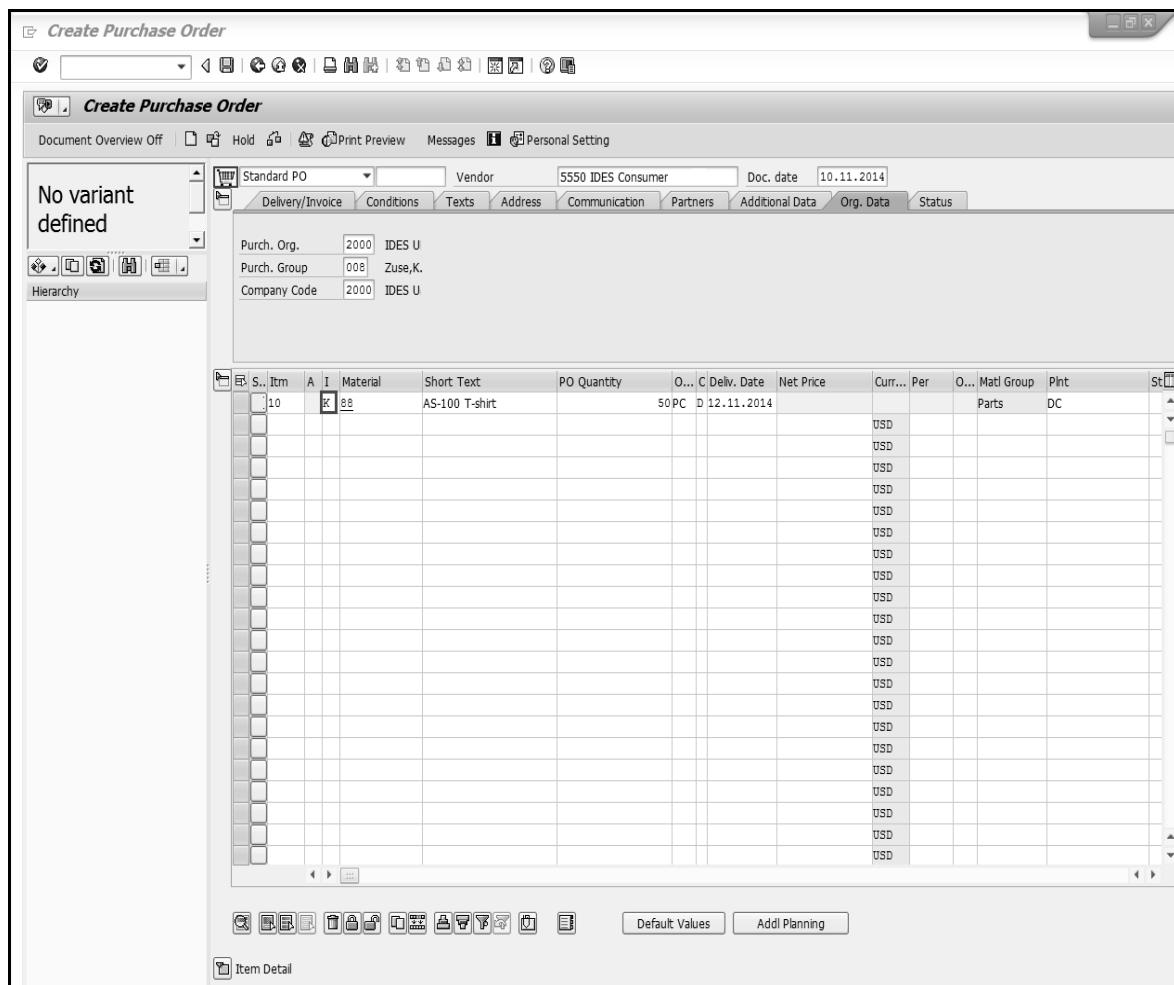
In consignment, material is available at the organization store premises, however it still belongs to the vendor (seller)/Owner of the material. If you utilize the material from the consignment stocks, then you have to pay to the vendor.

Follow the steps given below to create a consignment purchase order.

TCode to create Purchase Order: ME21N

Consignment Item Category: K

1. Provide the TCode in the command field.
2. It will take you to the purchase order screen.
3. Provide all the necessary details such as the name of the vendor, item category, name of material, plant for which material is procured, and the date of delivery.
4. Click on Save. Consignment Purchase order will be created.



Stock Transfer Purchase Order

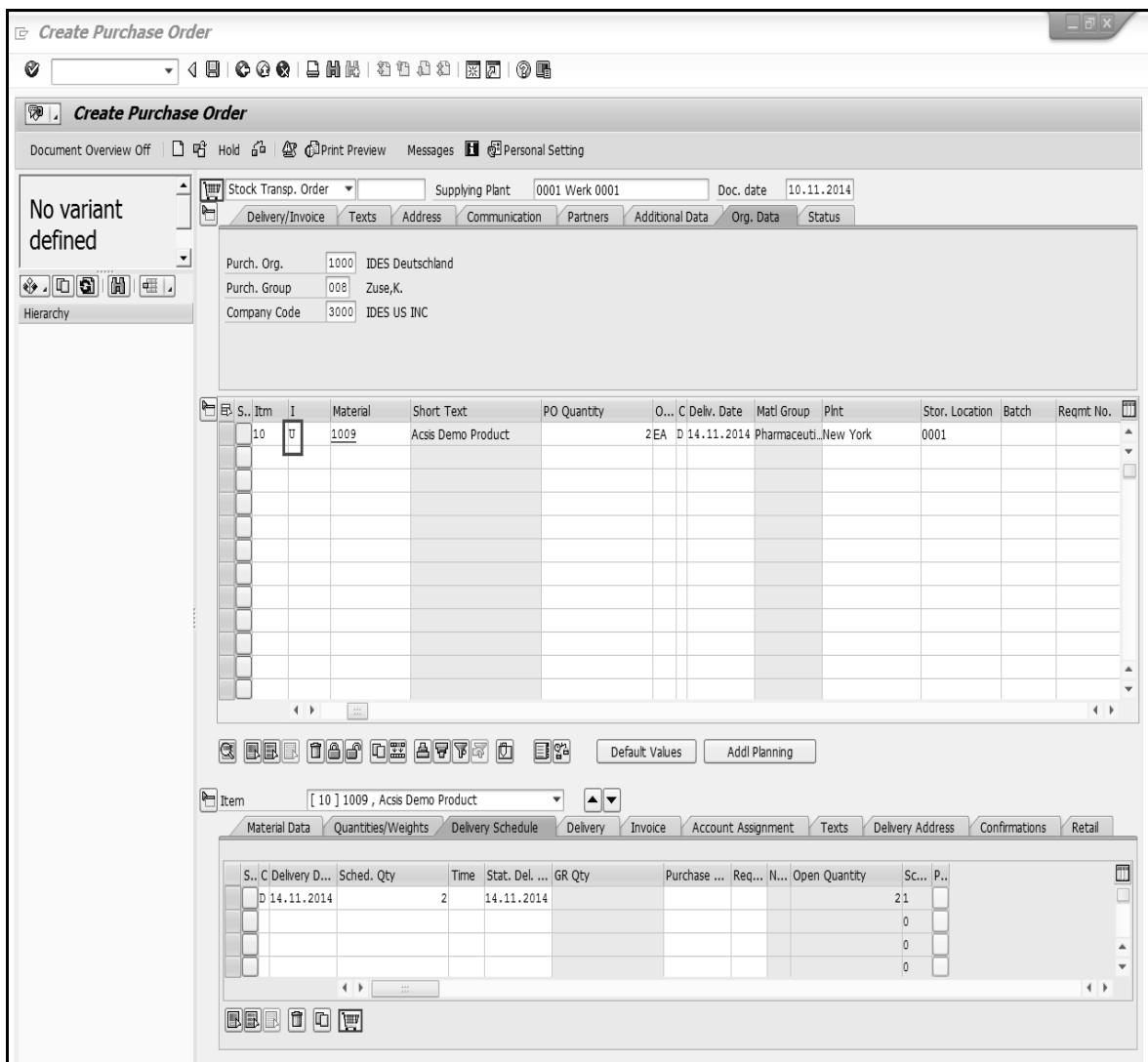
In stock transfer, goods are procured and supplied within a company. One plant orders the goods internally from another plant (receiving plant/issuing plant). The goods are procured with a special type of purchase order known as the **stock transport order**.

Follow the steps given below to create a stock transfer purchase order.

TCode to create Purchase Order: ME21N

Stock Transfer Item Category: U

1. Provide the TCode in the command field.
2. It will take you to the purchase order screen.
3. Provide all the necessary details such as the name of the vendor, item category, name of material, plant for which material is procured, and the date of delivery.
4. Click on Save. Stock Transfer Purchase order will be created.



Service Purchase Order

In service, a third party provides services to a company. These services include maintenance functions such as electricity and oiling of machines. Follow the steps given below to create a service purchase order.

TCode to create Purchase Order: ME21N

Service Item Category: D

1. Provide the TCode in the command field.
2. It will take you to the purchase order screen.
3. Provide all the necessary details such as the name of the vendor, item category, name of material, plant for which material is procured, and the date of delivery.
4. Click on Save. Service Purchase order will be created.

18. INVENTORY MANAGEMENT

Procurement process starts with gathering requirements and ends with procuring goods from vendors. Once the goods are procured from a vendor, they need to be placed in the company's premises in correct place so that they can be consumed when required. Inventory management deals with placing and handling the stock received from the vendors in correct place within the company's premises.

Listed below are the points to note about inventory management:

- Inventory management deals with the management of stock, either on value or quantity basis.
- It includes planning, entry, and keeping records of all the movements of goods.
- Goods movement creates a document that updates all the stock quantity and value in the inventory that is known as the **material document**.
- A material document is referred by a document number and document year.

One normally comes across the following terms while doing inventory management:

- Movement Type
- Goods Receipt
- Reservation
- Goods Issue

Movement Type

Movement type describes the type of stock posting in inventory. It represents whether the posting in stock is against goods receipt or goods issue. The important movement types in SAP MM are as follows:

- 101 - Goods receipt for purchase order or order.
- 103 - Goods receipt for purchase order into GR blocked stock.
- 201 - Goods issue for a cost center.261 - Goods issue for an order.
- 301 - Transfer posting plant to plant in one step.
- 305 - Transfer posting plant to plant in two steps - placement in storage.

- 311 - Transfer posting storage location to storage location in one step.
- 313 - Stock transfer storage locations to storage location in two steps - removal from storage.

Movement types can be reached out by following the steps given below:

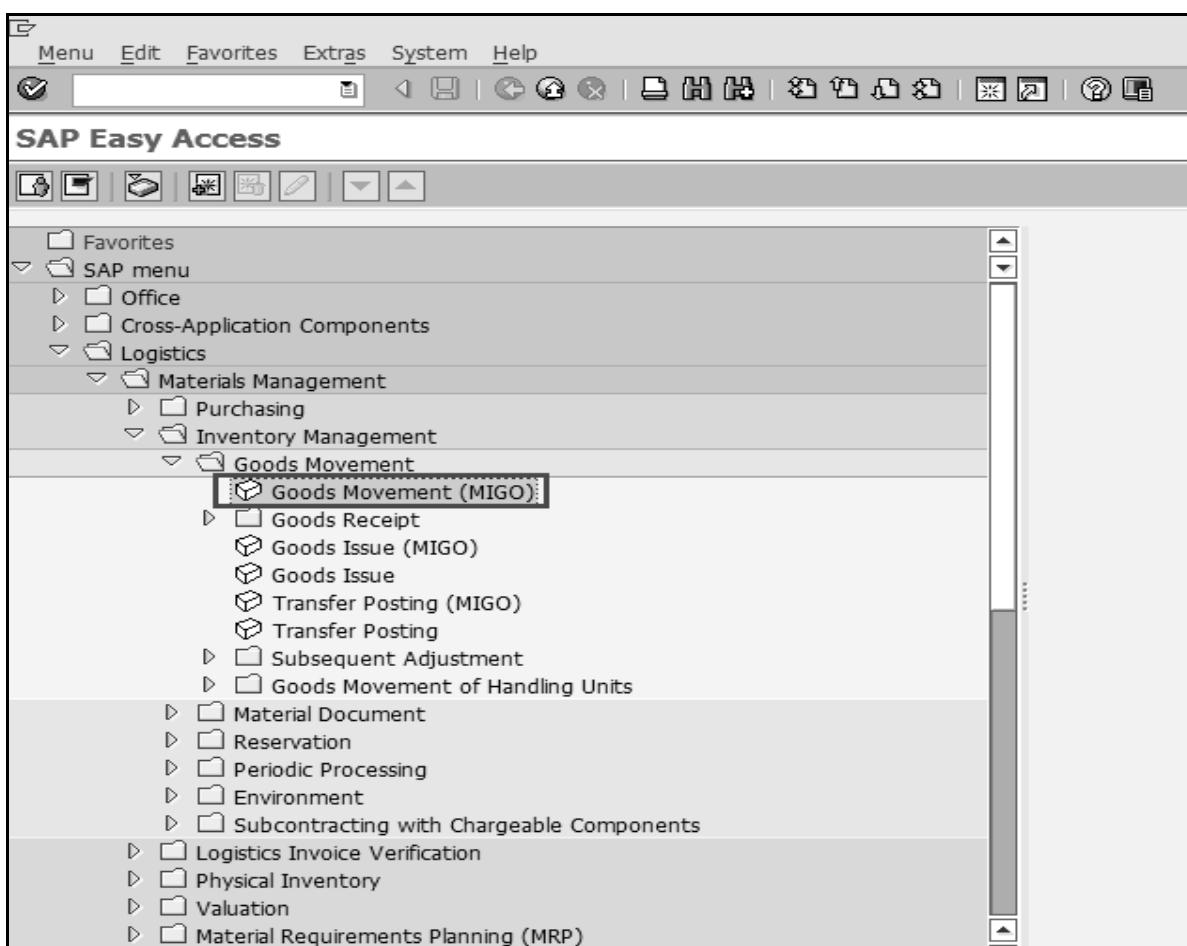
Path to Reach Movement Type:

Logistics => Materials Management => Inventory Management => Goods

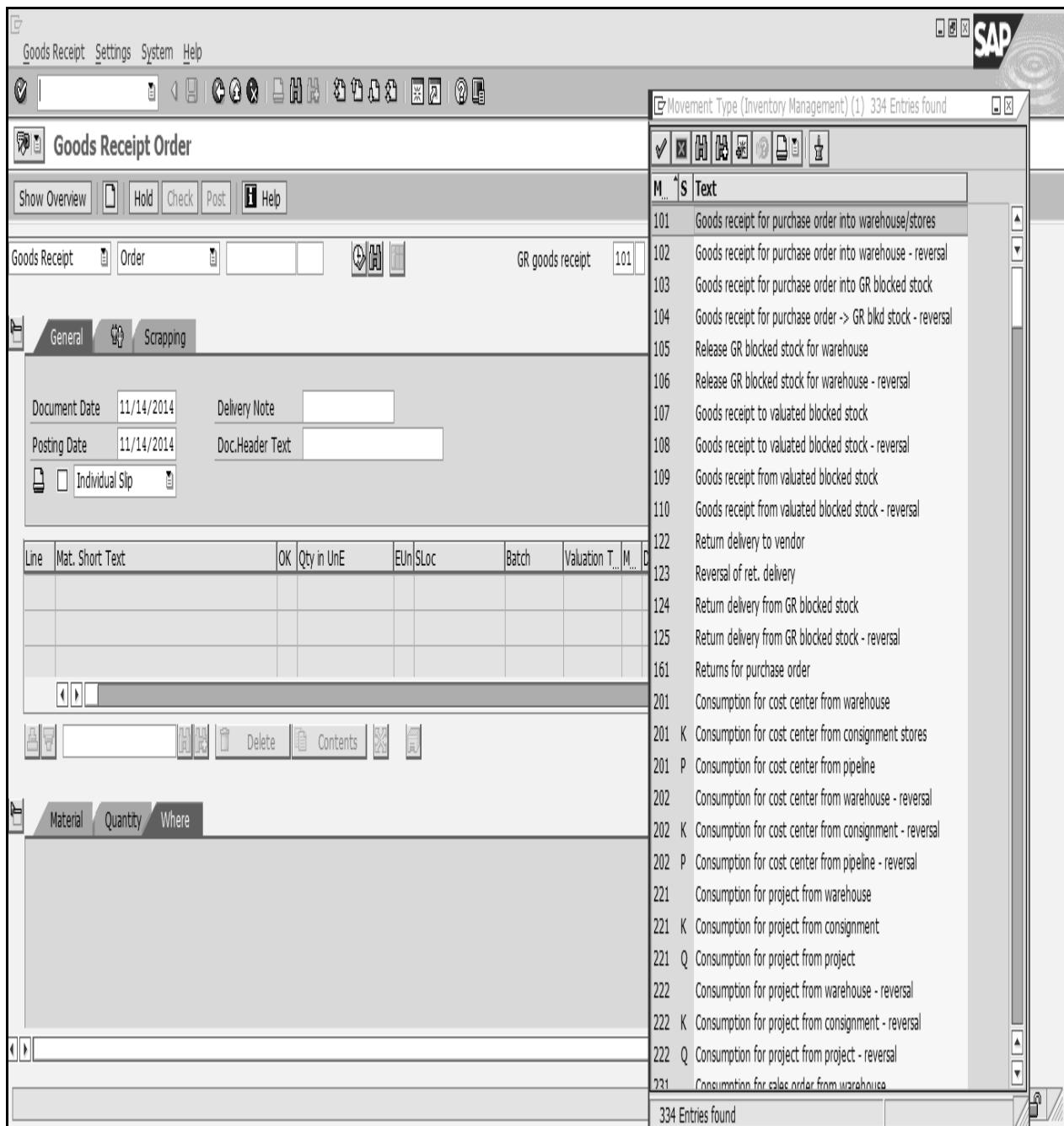
Movement => Goods Movement (MIGO)

TCode: MIGO

Step 1: On the SAP Menu screen, select Goods Movement (MIGO) by following the above path.



Step 2: Select GR Goods Receipt drop-down. You will get a lot of standard movement types and you can choose one according to your requirement.



Goods Receipt

Goods receipt is the phase where the material is received by the ordering party and its condition and quality are verified. Depending upon the movement type, stock is posted in inventory with the help of goods receipt. Goods receipt will show the increase in warehouse stock. Goods receipt has two scenarios:

- Creation of Goods Receipt

- Cancellation of Goods Receipt

Creation of Goods Receipt

Goods receipt can be posted by following the steps given below.

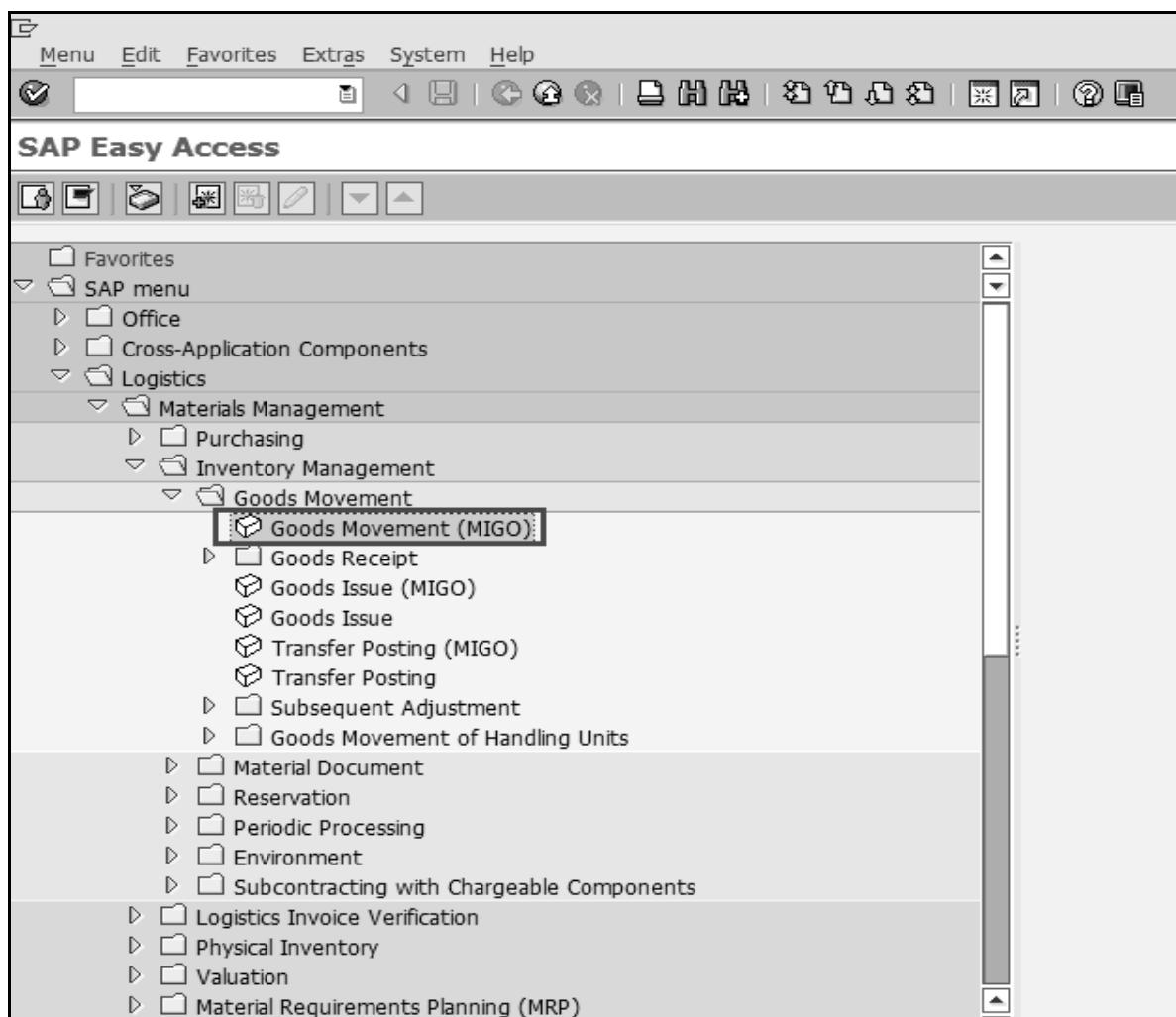
Path to Post Goods Receipt:

Logistics => Materials Management => Inventory Management => Goods

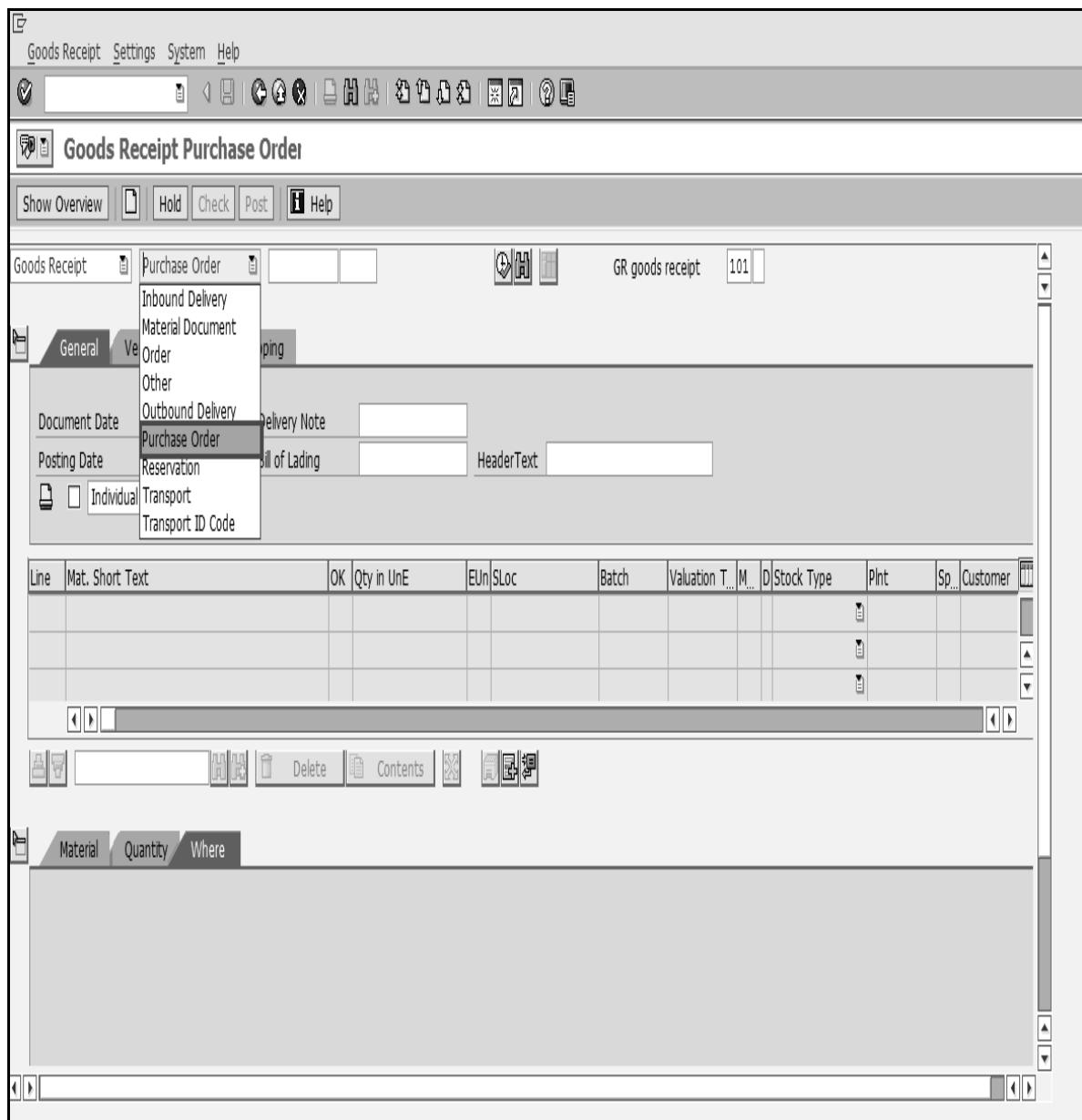
Movement => Goods Movement (MIGO)

TCode: MIGO

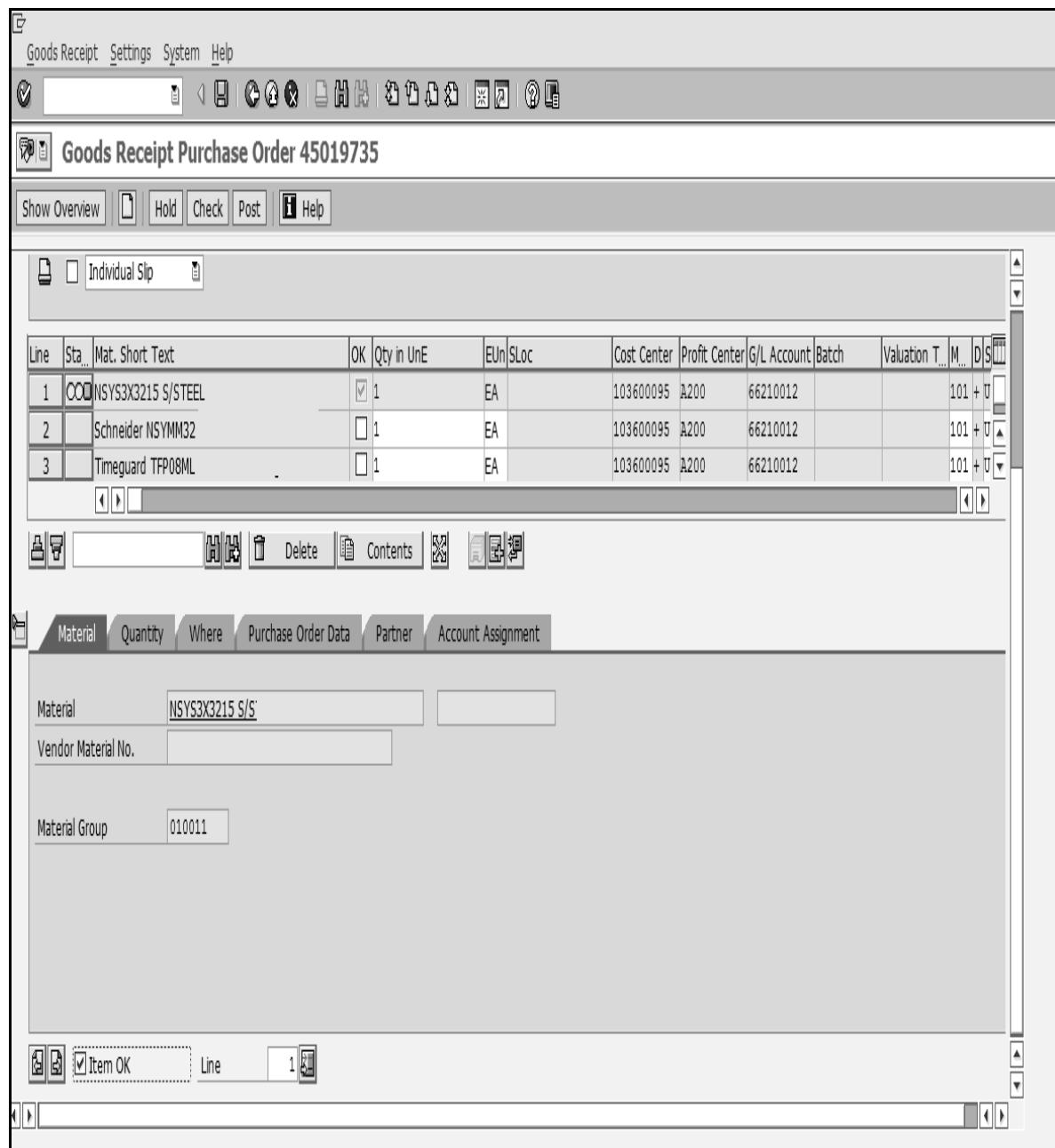
Step 1: On the SAP Menu screen, select Goods Movement (MIGO) by following the above path.



Step 2: Goods receipt can be posted against various documents. Select the required document from the drop-down. In this case, we are selecting purchase order. Select the movement type according to the requirement.



Step 3: It will fetch all the details from the selected reference document such as material, quantity, plant, etc. Select check tab to check the document. Then click on Save. A material document number will be generated. Goods receipt is now posted against a purchase document.



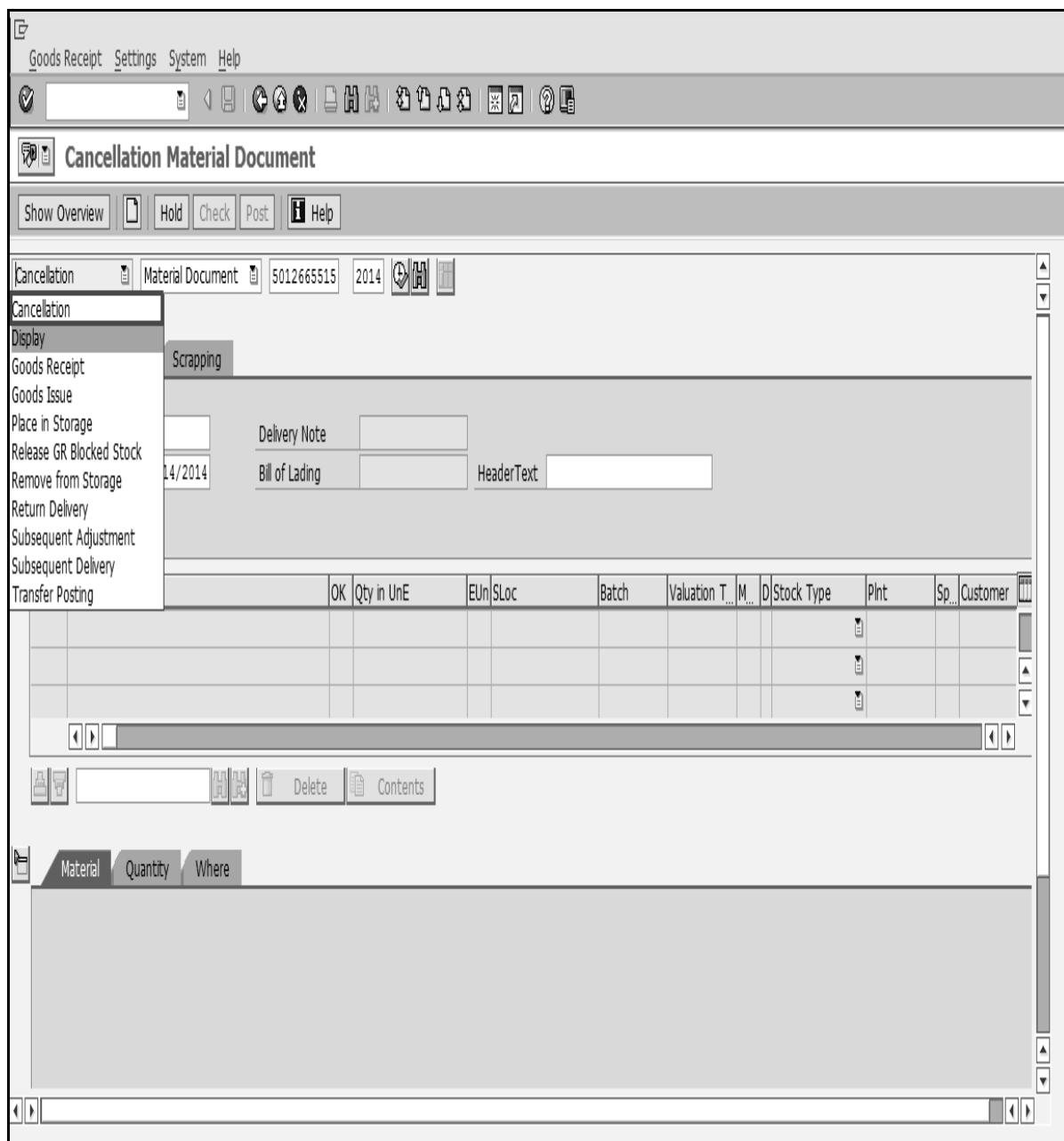
Cancellation of Goods Receipt

Sometimes a goods receipt is not posted correctly, in which case, it is to be cancelled. Follow the steps given below to cancel a goods receipt.

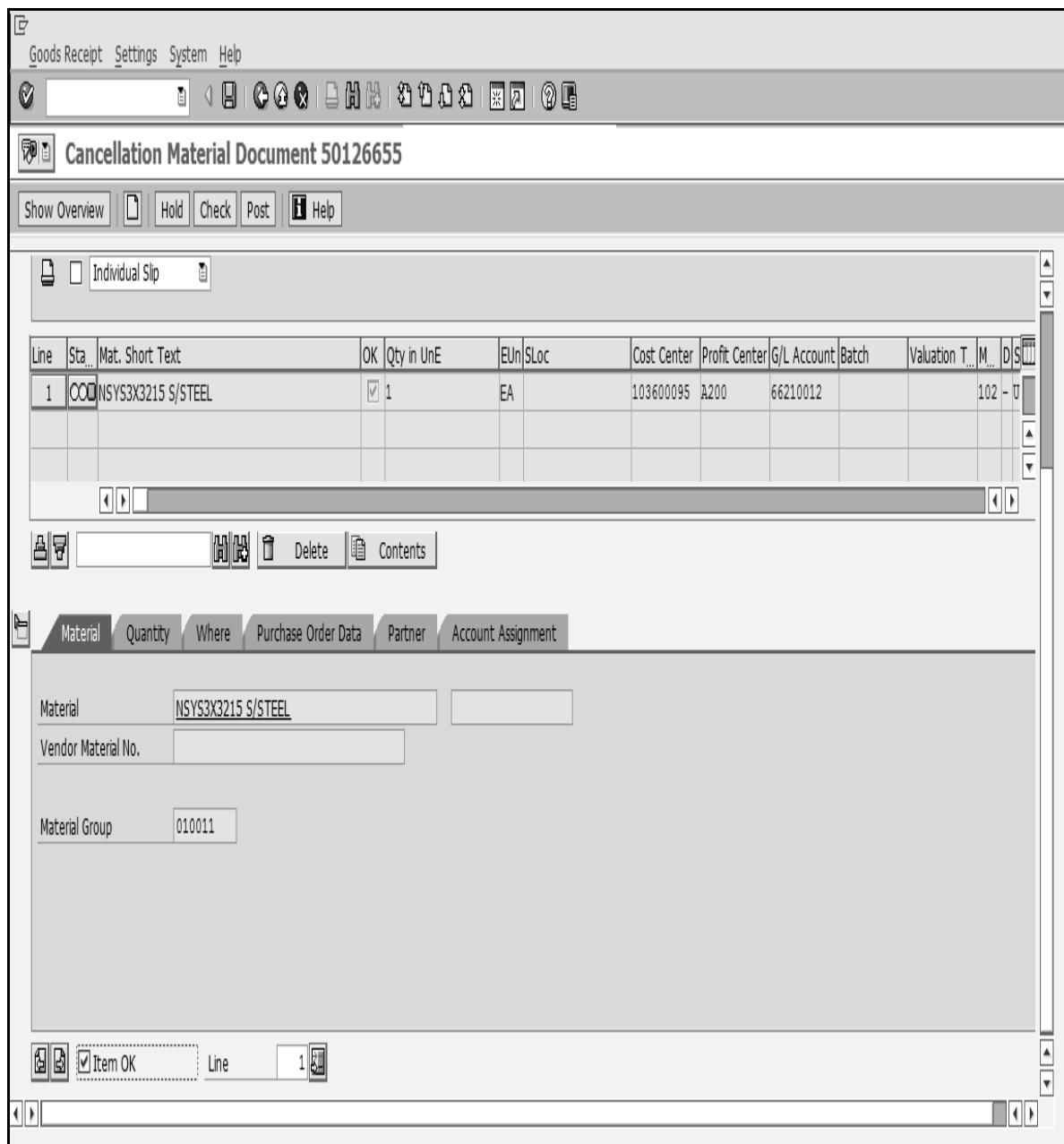
Path to Cancel Goods Receipt:

Logistics => Materials Management => Inventory Management => Goods Movement => Goods Movement (MIGO)
TCode: MIGO

Step 1: On the MIGO screen, select Cancellation against a Material Document Number from the drop-down. Provide the material document number.

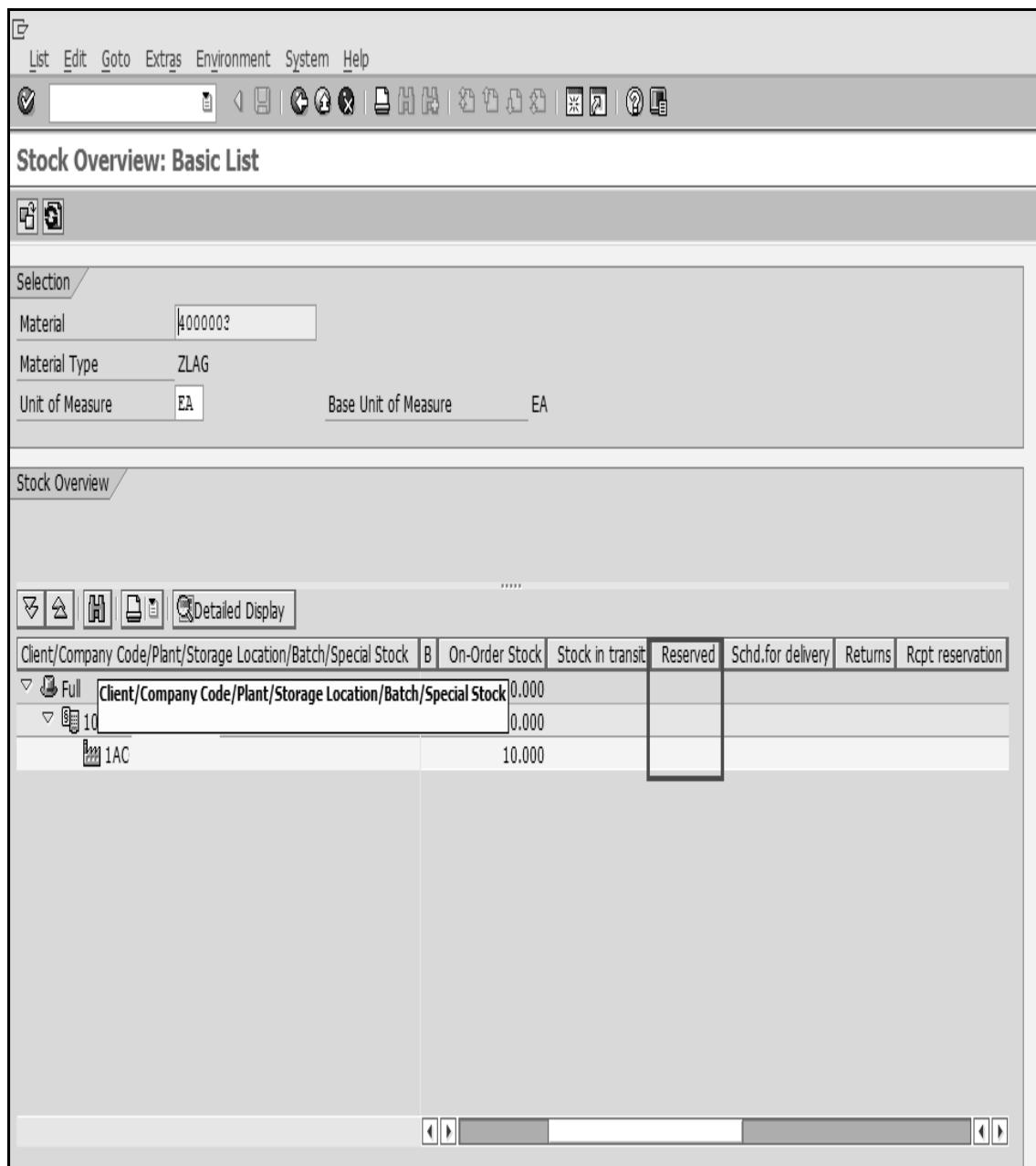


Step 2: It will fetch all the details from the material document. Select the check tab to check the document. Then click on Save. A material document number will be generated. Goods receipt is now cancelled.



Reservation

Sometimes, stocks are to be blocked in advance so that they can be made available at a particular point of time. This is known as **reservation**. Reservation ensures that availability of stock at a particular time. Reserved quantity can be viewed by TCode MMBE. Provide the material number and plant. Reserved quantity can be seen in the reserved tab as shown below.

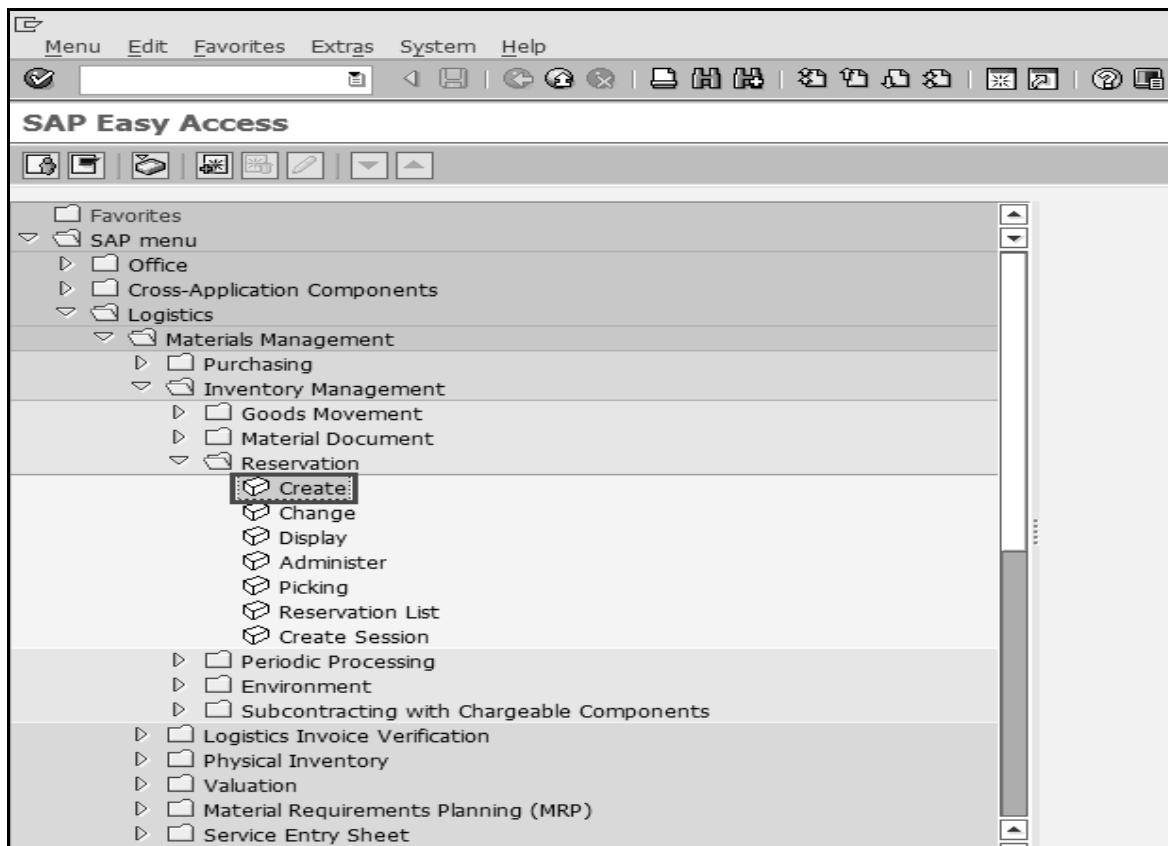


Follow the steps given below to create a Reservation.

Path to Create Reservation:

Logistics => Materials Management => Inventory Management => Reservation
=> Create
TCode: MB21

Step 1: On the SAP Menu screen, select the Create execute icon by following the above path.



Step 2: Enter the date, movement type, and the plant for which reservation is to be made.

The screenshot shows the 'Create Reservation: Initial Screen' dialog box. The fields entered are:

- Base date: 11/14/2014
- Movement Type: 261
- Plant: 1AC

A reference section labeled 'Reservation' is also visible.

Step 3: Enter the order number against which you want to make a reservation. Provide the details of material and the quantity that is to be reserved. Click on Save. Reservation is now made for the order.

F	Item	Material	Quantity in	UnE	Plnt	SLoc	Batch	RU	RP	M
1								0		<input checked="" type="checkbox"/>
2								0		<input checked="" type="checkbox"/>
3								0		<input checked="" type="checkbox"/>
4								0		<input checked="" type="checkbox"/>
5								0		<input checked="" type="checkbox"/>
6								0		<input checked="" type="checkbox"/>
7								0		<input checked="" type="checkbox"/>
8								0		<input checked="" type="checkbox"/>
9								0		<input checked="" type="checkbox"/>
10								0		<input checked="" type="checkbox"/>

Goods Issue

Goods issue means moving a stock out of inventory that may be due to several reasons like withdrawing of material for sampling or returning the goods back to the vendor. A goods issue results in a decrease in quantity in the warehouse. Follow the steps given below to post a goods issue.

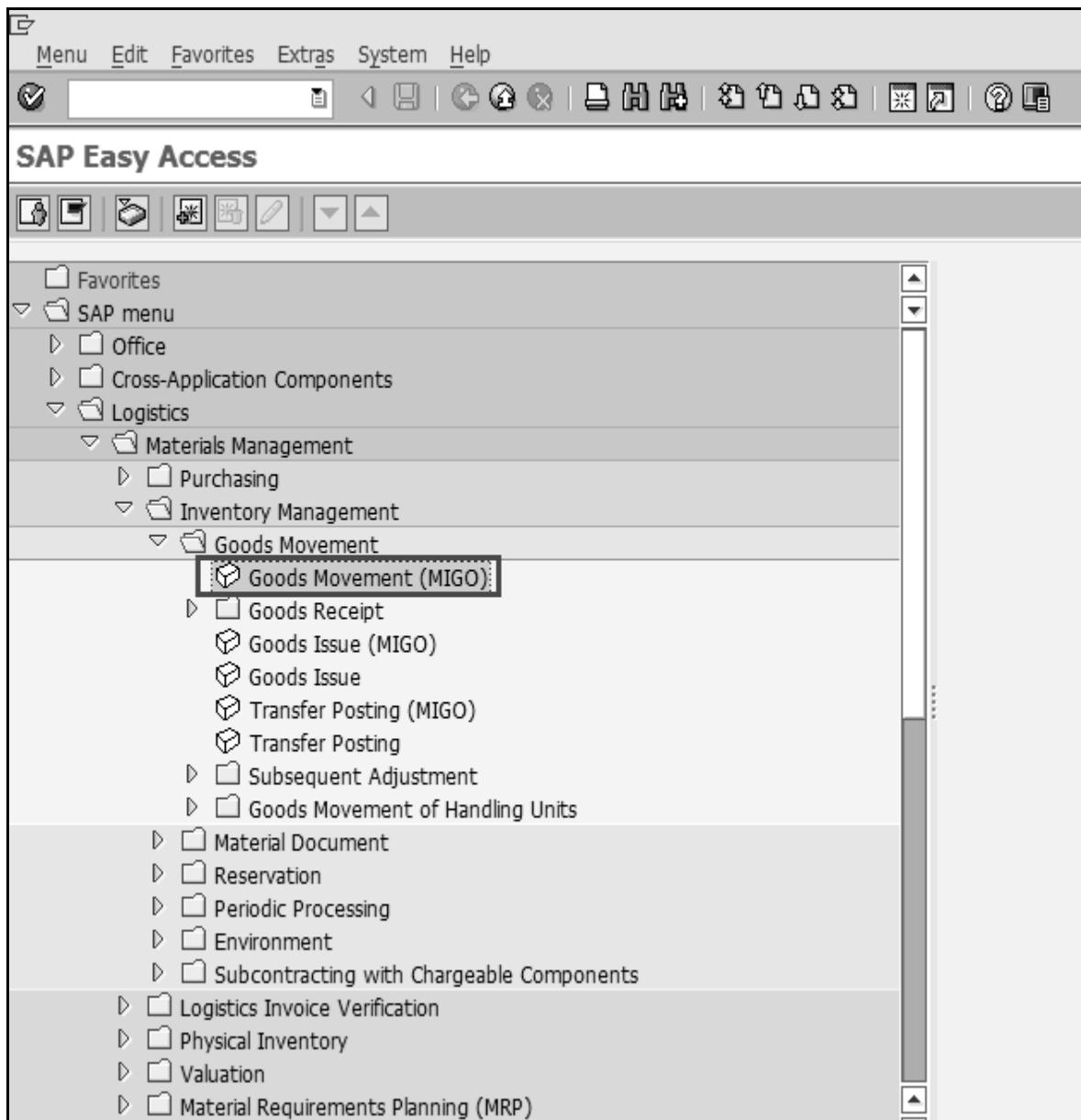
Path to Post Goods Issue:

Logistics => Materials Management => Inventory Management => Goods

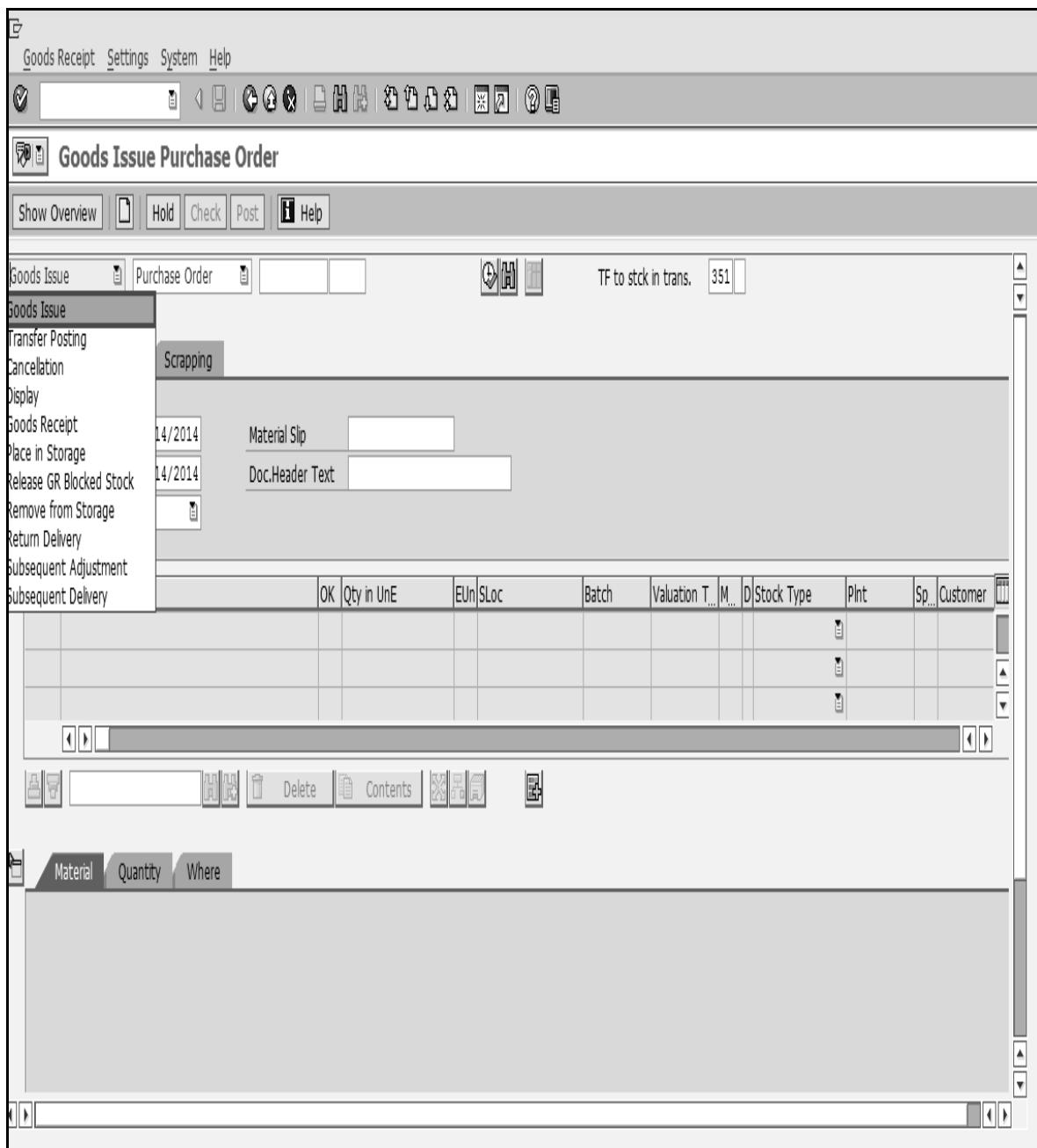
Movement => Goods Movement (MIGO)

TCode: MIGO

Step 1: On the SAP Menu screen, select Goods Movement (MIGO) by following the above path.



Step 2: Select goods issue from the drop-down. Goods issue can be posted against various documents. Select the required document from the drop-down. For example, in this case, we are selecting purchase order. Select the movement type according to the requirement.



Step 3: It will fetch all the details from the selected reference document such as material, quantity, plant, etc. Select the check tab to check the document. Then click on Save. A material document number will be generated. Goods Issue is now posted against a purchase document.

The screenshot shows the SAP MM interface for a Goods Issue Purchase Order. The title bar reads "Goods Receipt Settings System Help". Below it is a toolbar with various icons. The main area displays a message "Goods Issue Purchase Order 45019731". A toolbar below the message includes "Show Overview", "Hold", "Check", "Post", and "Help".

Header fields include "Document Date" (11/14/2014), "Material Slip" (empty), "Posting Date" (11/14/2014), "Doc.Header Text" (empty), and a checkbox for "Individual Slip".

A table lists the goods issued:

Line	Mat. Short Text	OK	Qty in UnE	EU	Un	S...	SLoc	Batch	Valuation T...	M...	D	Stock Type	Plant	Sp...	Custom
1	ROCK MED TSFR		100.000	LB					351 - Unrestrict...			AVERY ISLA...			

Below the table is another toolbar with icons for "Print", "Save", "Cancel", "Delete", "Contents", and "Help".

The bottom section contains tabs: "Material", "Quantity", "Where", "Purchase Order Data", and "Stock Transfer". The "Where" tab is selected. Movement parameters shown are "Movement Type" (351), "TF to stock in trans.", "Stock type" (Unrestricted use), "Plant" (AVERY ISLAND), "Storage Location" (empty), "Goods recipient" (empty), and "Unloading Point" (empty).

19. INVOICE VERIFICATION

Every organization acquires goods or services to complete its business needs. Once goods are procured from a vendor and placed in company's premises through goods receipt, we need to pay to the vendor for the acquired goods and services. The amount to be paid along with the details of the material is provided by the vendor in the form of a document that is known as the **invoice**. Before paying to the vendor, we need to verify the invoice. This process of verifying the invoice before making a payment is known as **invoice verification**. The key points to note about invoice verification are as follows:

- Invoice verification marks the end of procurement, after purchase order and goods receipt.
- Invoice posting updates all the related documents in financials and accounting.
- Blocked invoice that vary from actual invoice can be processed through invoice verification.

One normally comes across the following terms in invoice verification:

- Posting of Invoice
- Blocked Invoice
- Evaluated Receipt Settlement (ERS)

Posting of Invoice

Posting of invoice is done after having received the goods from the vendor and after having completed the goods receipt. The invoice received from a vendor is verified against cost, quantity, and quality by the ordering party, and then the invoice is posted against that purchase order.

This is the phase where the vendor (seller) is paid from the company and reconciliation of the invoice and PO is accomplished. Follow the steps given below to post an invoice.

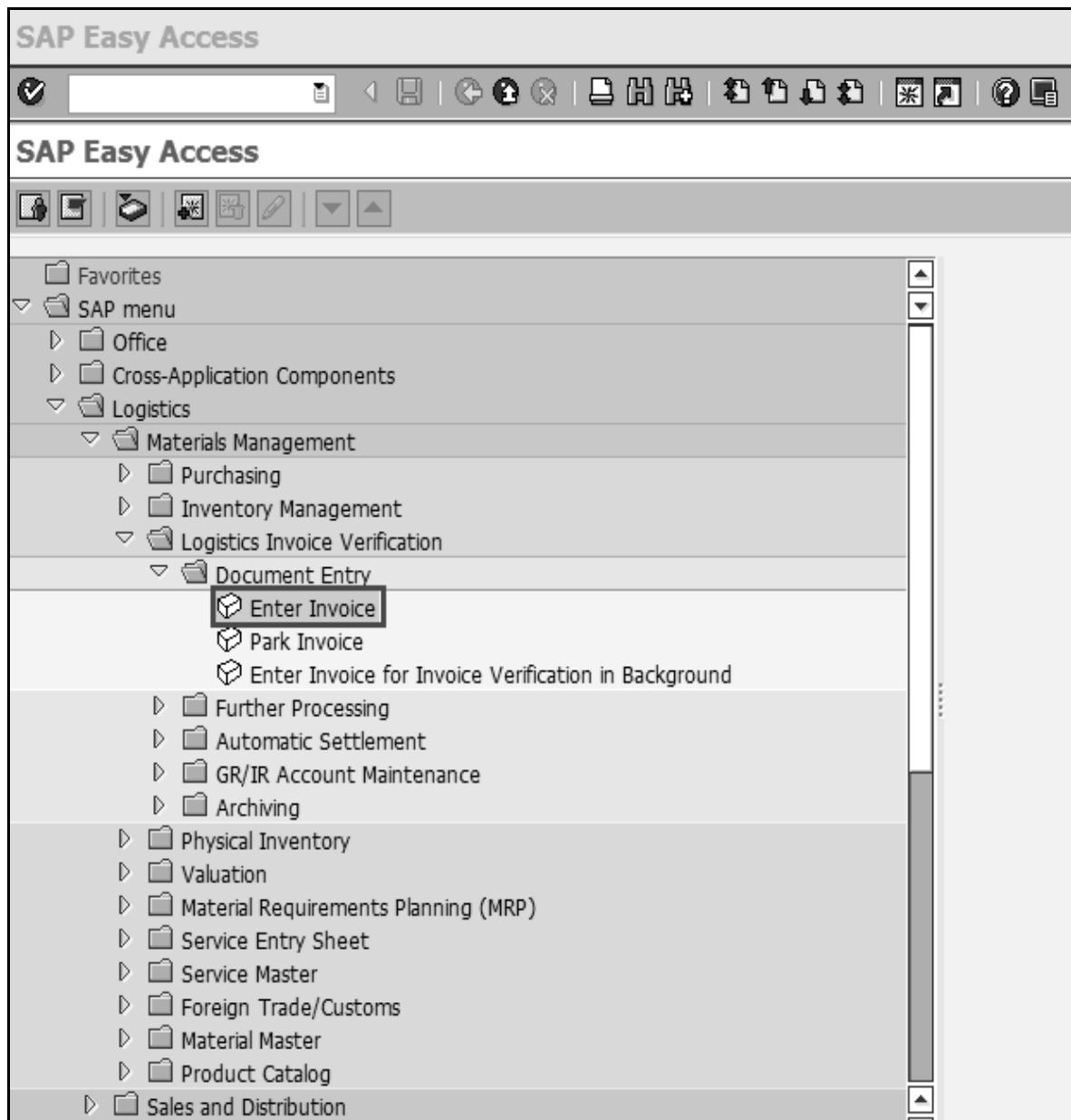
Path to Post Invoice:

Logistics => Materials Management => Logistic Invoice Verification =>

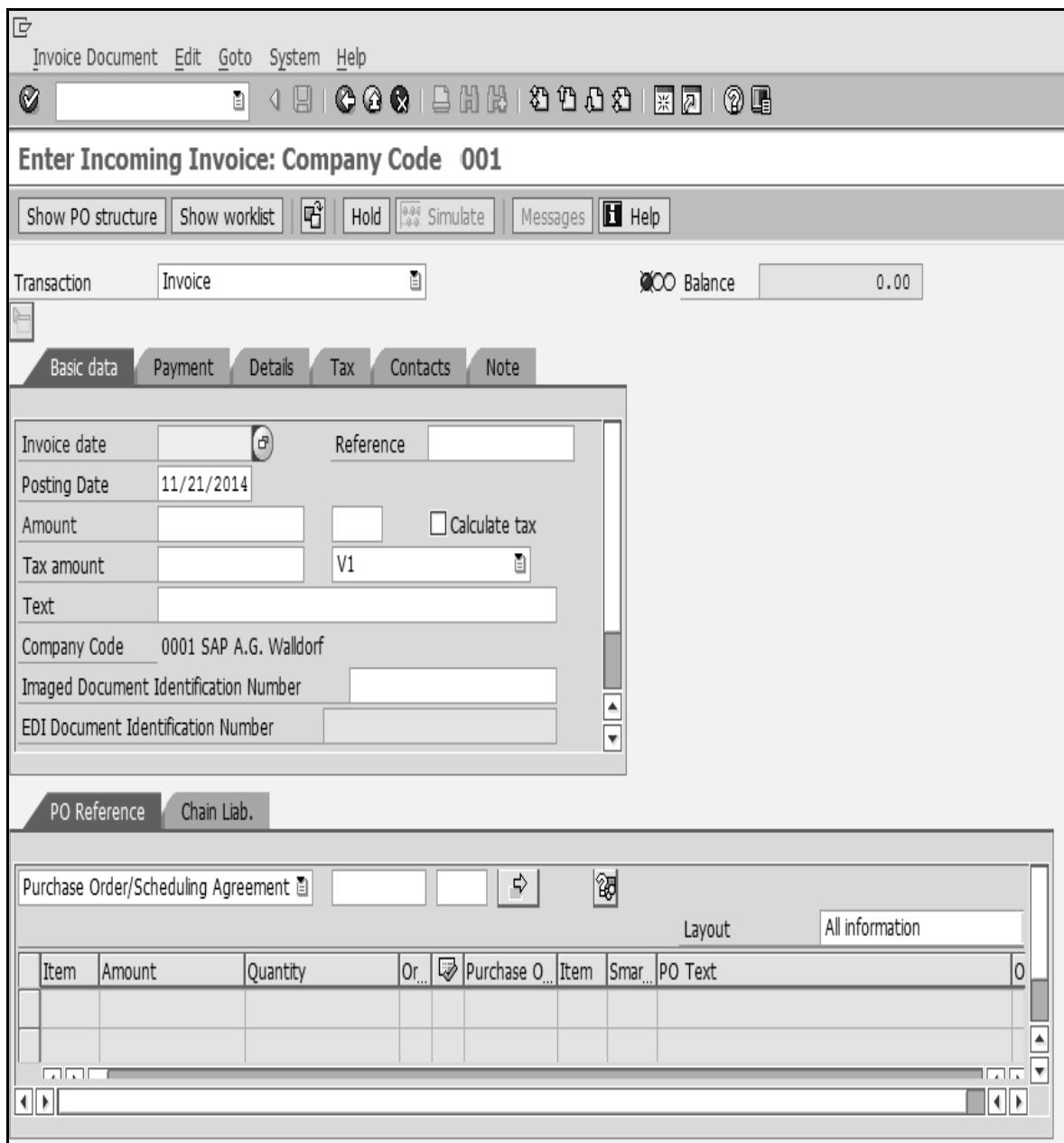
Document Entry => Enter Invoice

TCode: MIRO

Step 1: On the SAP Menu screen, select Enter Invoice by following the above path.



Step 2: Fill in all the necessary details such as invoice posting date, amount that is paid to the vendor along with the quantity for which the amount is paid. Click on Save. Invoice is now posted for the goods receipt.



Blocked Invoice

Sometimes the accounting department may not be able to pay a vendor as per the invoice raised. This may happen in the following scenario. You try to post an invoice, however the system expects certain default value against the purchase order or the goods receipt and the posted invoice differs from the default value. This may lead to invoice blocking. Invoice blocking is caused due to:

- Variance in amount at item level.

- Variance in quantity at item level.

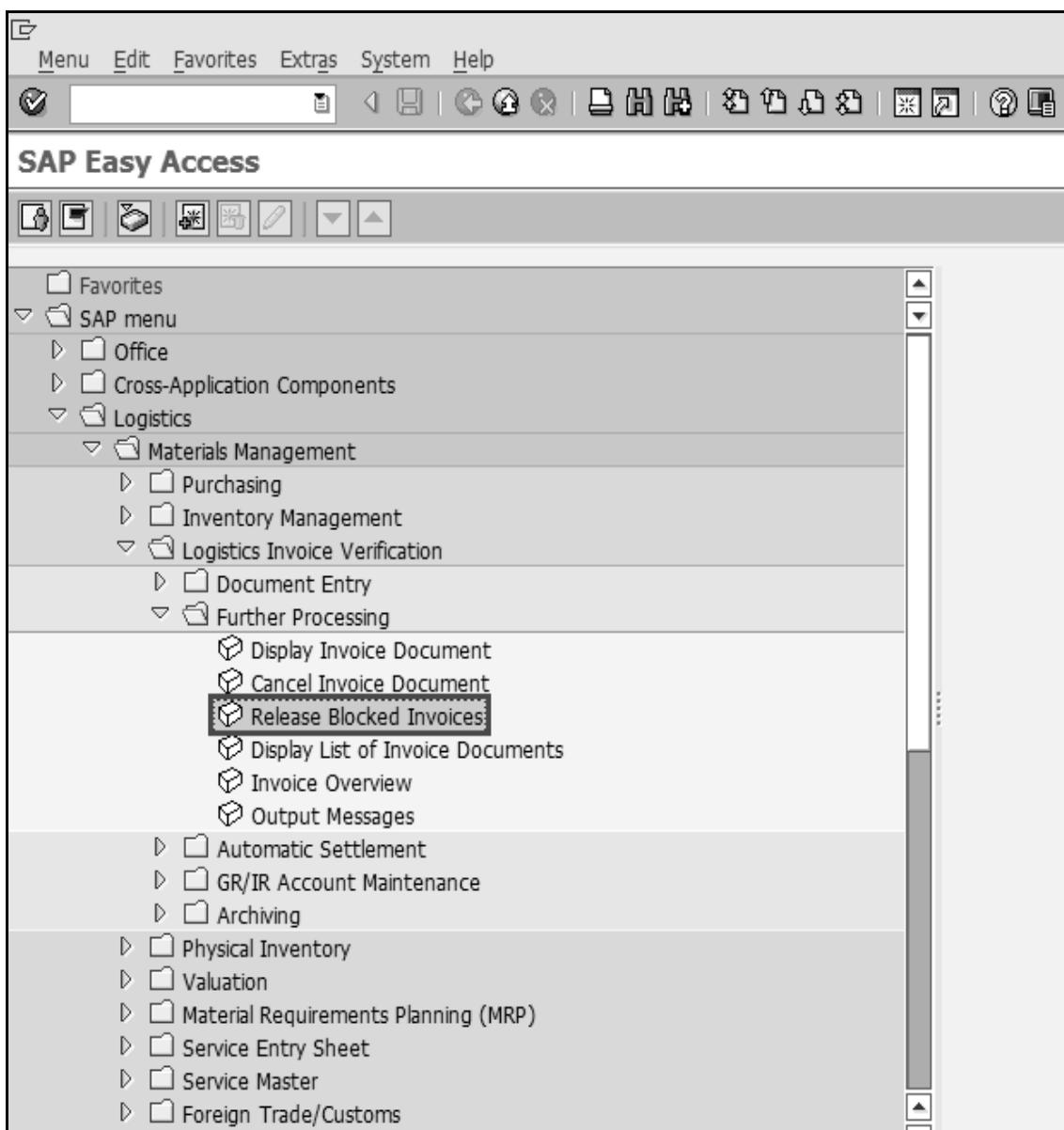
It is difficult to analyze small variances in invoice. So, tolerance limits are set up in the system and if the variance in the invoice is within the tolerance limit, then the system accepts the invoice. If the variance exceeds the tolerance limit, then it may lead to invoice blocking. In such cases, we need to manually unblock or release the blocked invoice if it has to be processed. Follow the steps given below to unblock an invoice.

Path to Release Blocked Invoice:

Logistics => Materials Management => Logistic Invoice verification => Further Processing => Release Blocked Invoice

TCode: MRBR

Step 1: On the SAP Menu screen, select Release Blocked Invoices by following the above path.



Step 2: Provide necessary details such as company code, invoice document number, vendor, posting date, and purchasing group. Then click the execute button. The blocked invoice will be released.

The screenshot shows the SAP MM 'Release Blocked Invoices' transaction screen. The interface includes a menu bar with 'Program', 'Edit', 'Goto', 'System', and 'Help'. Below the menu is a toolbar with several icons. The main area has a title 'Release Blocked Invoices' and contains several sections:

- Selection of Blocked Invoices:** This section contains eight input fields for filtering blocked invoices. Each field has a value and a 'to' field to its right, followed by a double-headed arrow icon. The fields are:
 - Company Code: 0001
 - Invoice Document: = [empty]
 - Fiscal Year: = [empty]
 - Vendor: [empty]
 - Posting Date: [empty]
 - Due Date: [empty]
 - Purchasing Group: [empty]
 - User: [empty]
- Processing:** This section contains three radio buttons:
 - Release Manually
 - Release Automatically
 - Move Cash Disc. Date
- Blocking Procedure:** This section contains three radio buttons:
 - Blocked Due to Variances
 - Manual Payment Block
 - Stochastically Blocked
- Display Options:** This section contains two fields:
 - Variant: /ZCMEMRBR

Evaluated Receipt Settlement

Evaluated Receipt Settlement (ERS) is an easy method of settling goods receipt automatically. If the ordering party has agreed with the vendor on all financial terms and condition, then it need not verify the invoice. Invoice will be posted automatically from the information present in the purchase order and the goods receipt. Given below are the advantages of having an ERS:

- Purchase orders can be settled and closed quickly.

- It reduces human efforts, as there is no need to verify the invoice.
- Amount and quantity variances in invoice can be avoided with the help of ERS.

To implement ERS, some mandatory settings are to be done in the vendor master.

1. Go to XK02 (Change mode of vendor master).
2. Select Control data tab.
3. Check the AutoEvalGRSetmt Del. and AutoEvalGRSetmt Ret box.
4. Click on Save. Now the particular vendor is enabled for ERS.

Change Vendor: Purchasing data

Sales data

Salesperson: []
Telephone: []
Acc. with vendor: []

Control data

<input type="checkbox"/> GR-Based Inv. Verif.	<input type="checkbox"/> ABC indicator	<input type="checkbox"/> RMA Required
<input type="checkbox"/> AutoEvalGRSetmt Del.	<input type="checkbox"/> ModeOfTrnsprt-Border	
<input type="checkbox"/> AutoEvalGRSetmt Ret	<input type="checkbox"/> Office of entry	
<input type="checkbox"/> Acknowledgment Reqd	<input type="checkbox"/> Sort criterion	By VSR sequence number
<input type="checkbox"/> Automatic purchase order	<input type="checkbox"/> PROACT control prof.	
<input type="checkbox"/> Subsequent settlement	<input type="checkbox"/> Revaluation allowed	
<input type="checkbox"/> Subseq. sett. index	<input type="checkbox"/> Grant discount in kind	
<input type="checkbox"/> B.vol.comp./ag.nec.	<input type="checkbox"/> Relevant for Price Det. (Vendor Hierarchy)	
<input type="checkbox"/> Doc. index active	<input type="checkbox"/> Relevant for agency business	
<input type="checkbox"/> Returns vendor		
<input checked="" type="checkbox"/> Srv.-Based Inv. Ver.	<input type="checkbox"/> Shipping Conditions	

Default data material

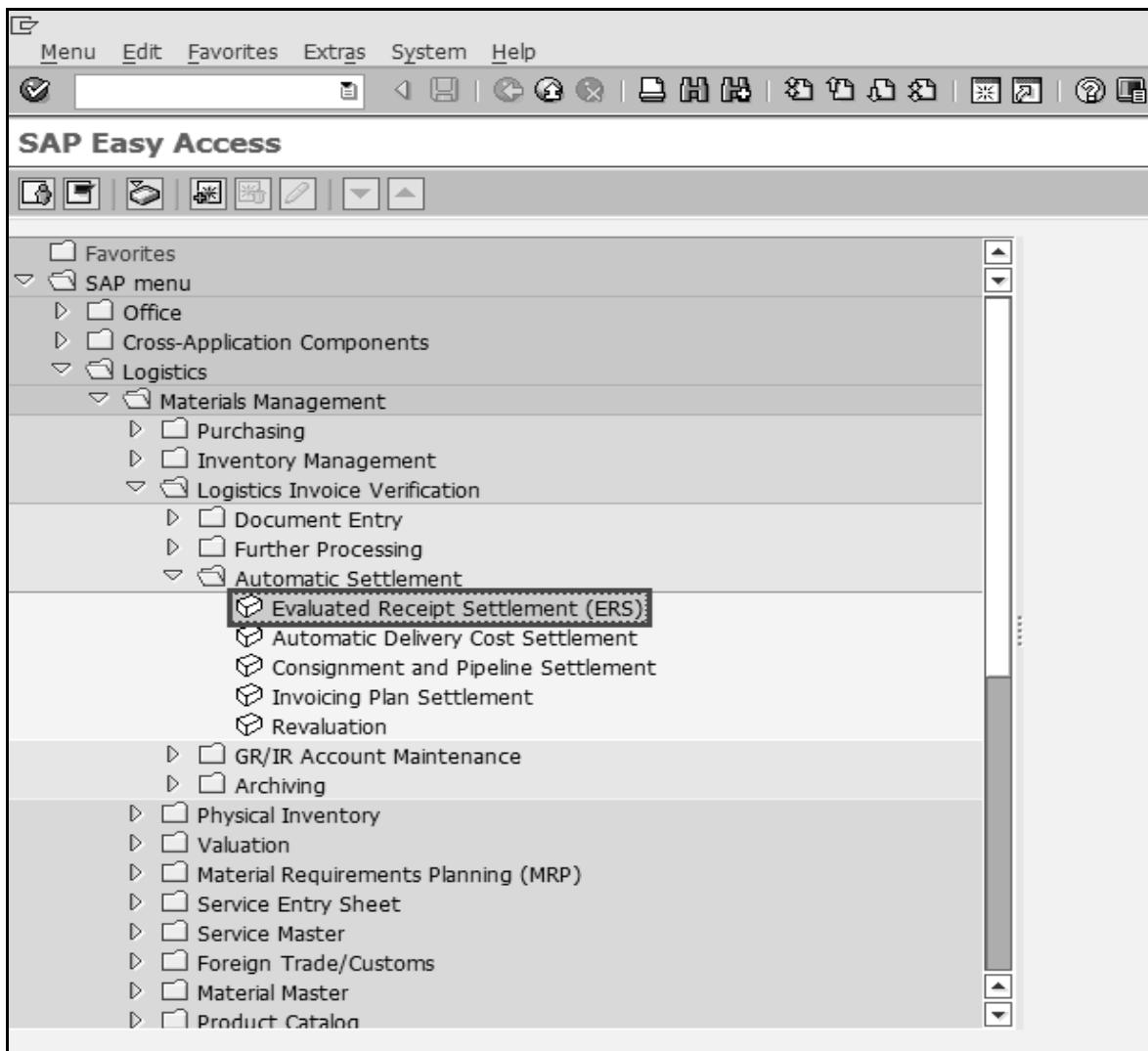
Purchasing group: []
Planned deliv. time: [] Day(s)

Follow the steps given below to create an ERS.

Path to Create ERS:

Logistics => Materials Management => Logistic Invoice verification =>
Automatic Settlement => Evaluated Receipt Settlement (ERS)
TCode: MRRL

Step 1: On the SAP Menu screen, select Evaluated Receipt Settlement (ERS) by following the above path.



Step 2: Fill in all the necessary details such as company code, plant, goods receipt document number and date, vendor, and purchasing document. Click on Save. ERS will be created for the corresponding purchase order and goods receipt.

The screenshot shows the SAP MM interface for 'Evaluated Receipt Settlement (ERS) with Logistics Invoice Verification'. The window title is 'Evaluated Receipt Settlement (ERS) with Logistics Invoice Verification'. The menu bar includes 'Program', 'Edit', 'Goto', 'System', and 'Help'. The toolbar contains various icons for file operations like Open, Save, Print, and Help.

Document Selection

Company Code	0001	to	<input type="button" value=">"/>
Plant	<input type="text"/>	to	<input type="button" value=">"/>
Goods Receipt Posting Date	<input type="text"/>	to	<input type="button" value=">"/>
Goods Receipt Document	<input type="text"/>	to	<input type="button" value=">"/>
Fiscal Year of Goods Receipt	<input type="text"/>	to	<input type="button" value=">"/>
Vendor	<input type="text"/>	to	<input type="button" value=">"/>
Purchasing Document	<input type="text"/>	to	<input type="button" value=">"/>
Item	<input type="text"/>	to	<input type="button" value=">"/>

Processing Options

Doc. selection	3	Document Selection per Order Item
Test Run	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Settle Goods Items + Planned Delivery Costs		

Display Options

Layout	<input type="text"/>
--------	----------------------

Transportation Management

<input type="checkbox"/> Settle Documents

20. SERVICE MANAGEMENT

Besides procurement of goods, an organization may occasionally require some kind of services. Such services include small maintenance tasks such as changing the lights, painting, and housekeeping. These services are carried out by external contractors and hence the whole process of procurement of services is known as service management. The key points to note about service management are as follows:

- Services are meant for direct consumption instead of keeping them in inventory.
- Service description along with its unit of measure is stored as master data in a record that is known as the **service master record**.
- The system stores the services that have been procured as a record in a sheet that is called as the service entry sheet.
- Service procurement can be of the following two types:
 - **Planned Services** - In planned services, at the time of procurement, specifications like quantity and price are known. It means the nature and scope of service is clear before the procurement.
 - **Unplanned Services** - In unplanned services, at the time of procurement, specifications like quantity and price are not known. It means the nature and scope of service is not clear before the procurement. These services can be extended as per requirement.

Service management deals with the following terms:

- Service Master Record
- Service Purchase Order
- Service Entry Sheet

Service Master Record

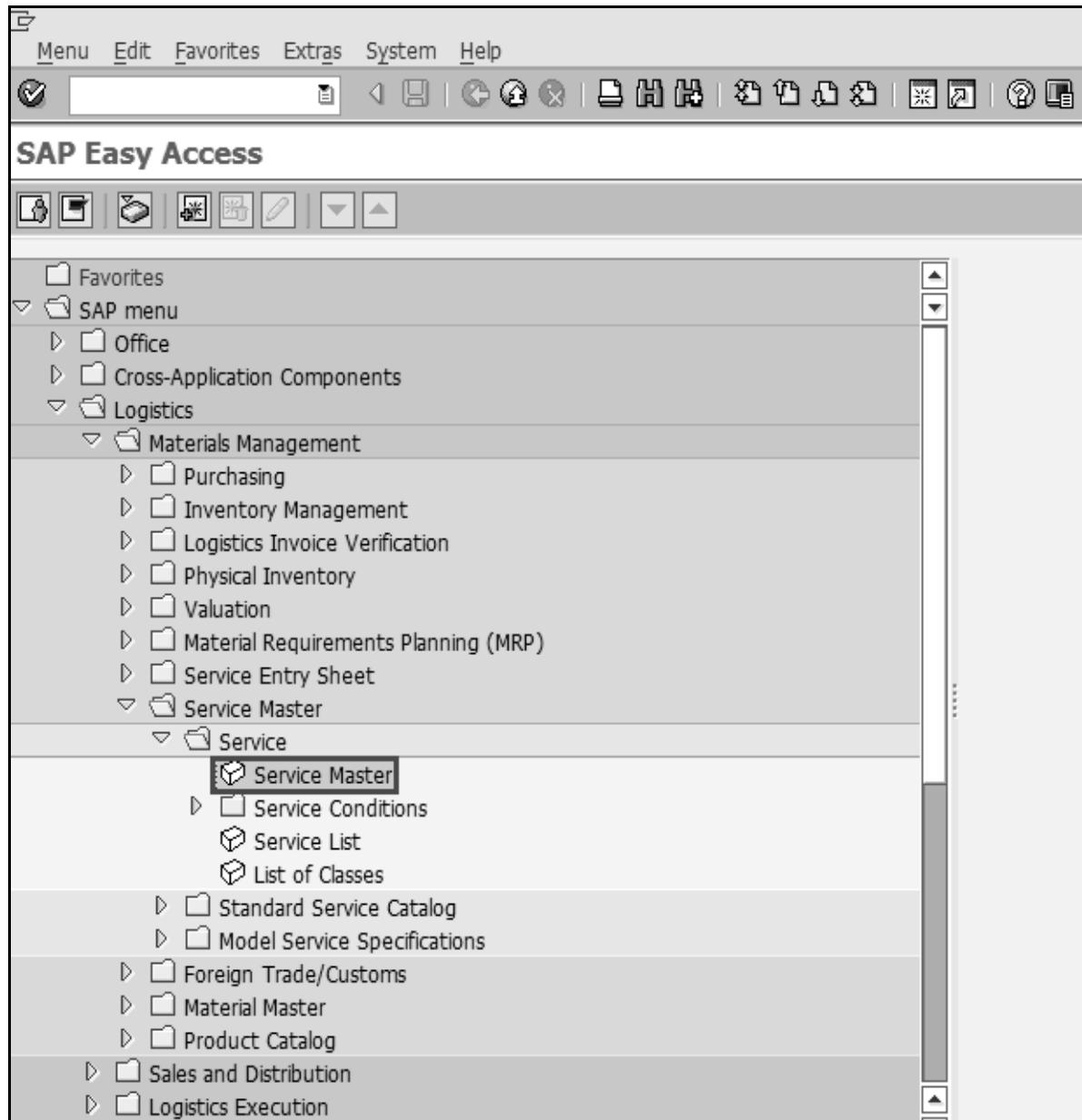
Service master record contains the details of all the services that can be procured from an external vendor within an organization. It contains the description of services along with their unit of measure. Service master record serves as a reference for creating service purchase order, but it is not necessary. Service purchase order can also be created manually without reference. Follow the steps given below to create a service master record.

Path to Create Service Master Record:

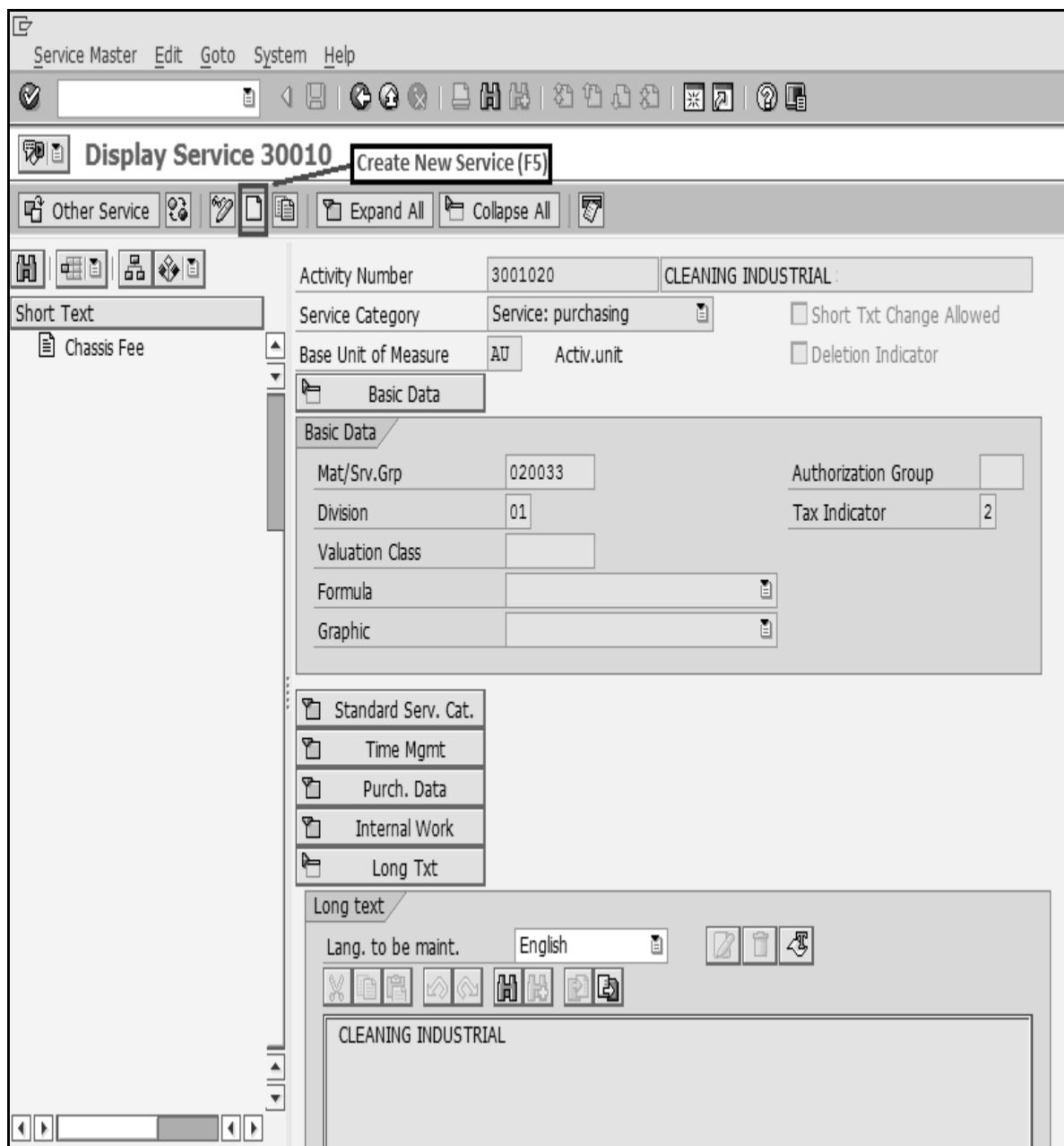
Logistics => Materials Management => Service Master => Service Master

TCode: AC03

Step 1: On the SAP Menu screen, select Service Master by following the above path.



Step 2: Click the Create New Service icon as shown below.



Step 3: Fill in all the necessary details such as service category, base unit of measure, and valuation class. Click on Save. A new Service will be created.

Service Purchase Order

In SAP MM, services are accomplished with the help of service purchase order. The requirement of service with its description along with quantity is given to a third party in the form of service purchase order. In a service purchase order, the most important field is 'item category'. For service, item category will be D. Follow the steps given below to create a service purchase order.

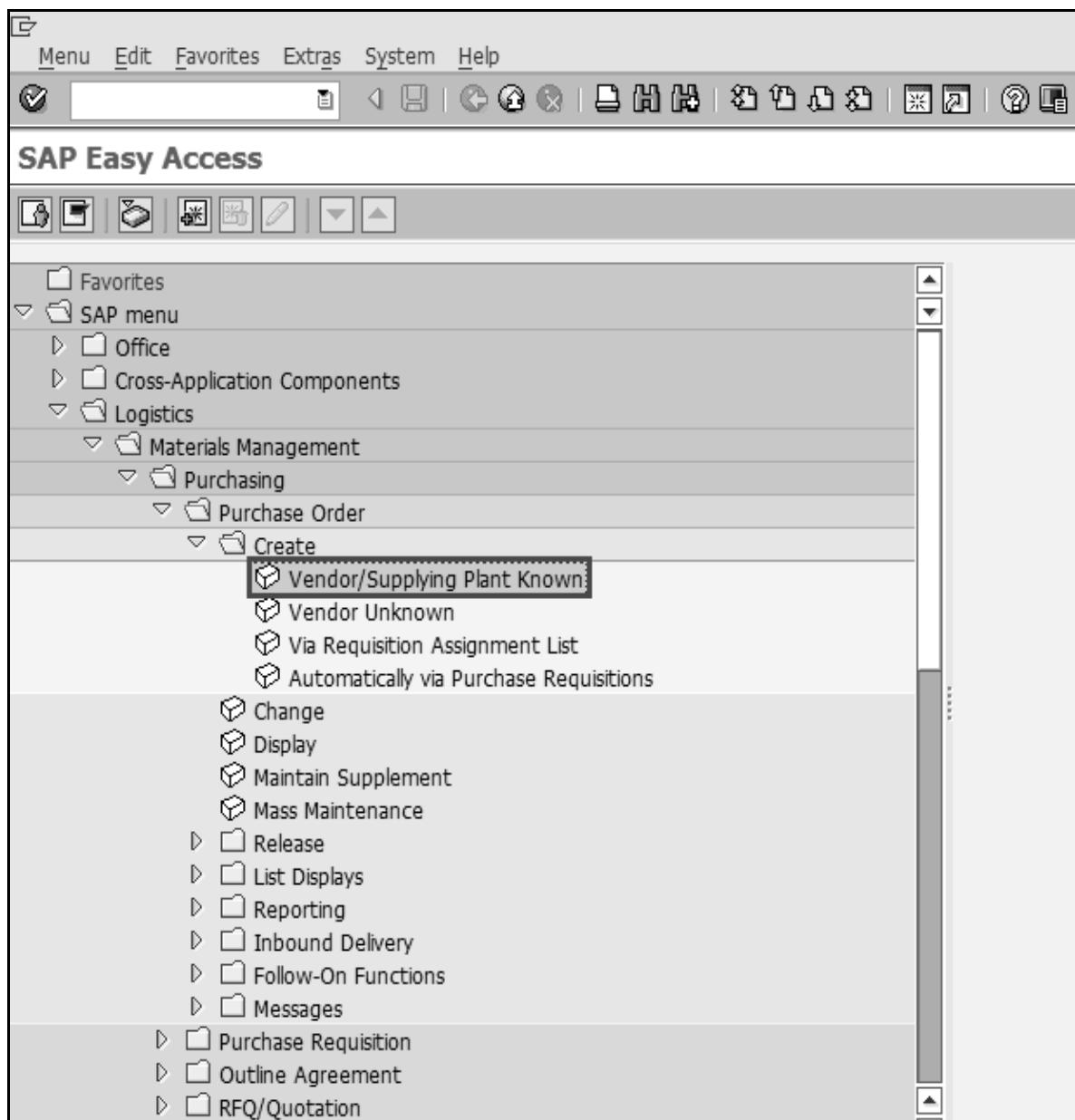
Path to Create Purchase Order:

Logistics => Materials Management => Purchasing => Purchase Order => Create => Vendor/ Supplying Plant Known

TCode: ME21N

Service Item Category: D

Step 1: On the SAP Menu screen, select Vendor/ Supplying Plant Known by following the above path.



Step 2: Provide all the necessary details such as the name of the vendor, item category, name of material, plant for which material is procured, and the date of delivery. Click on Save. Service Purchase order will be created.

The screenshot shows the SAP MM interface for creating a purchase order. The top menu bar includes options like Purchase Order, Edit, Goto, Environment, System, and Help. Below the menu is a toolbar with various icons. The main title is "Create Purchase Order". A toolbar below the title includes "Document Overview On", "Hold", "Print Preview", "Messages", "Personal Setting", "Save As Template", and "Load from Template". The header section shows "Standard PO" selected, "Vendor" set to "6500002", and "Doc. date" set to "12/03/2014". The main area is a grid for entering purchase order items. The columns are labeled: S, Item, A, I, Material, Short Text, PO Quantity, O..., C, Deliv. Date, Net Price, Curre..., Per, O..., Matl Group, Plnt, Stor. Location, and B. The first row contains data: Item 10, Material 100000456, PO Quantity 1.000 LB, Deliv. Date 12/03/2014, Net Price 0.00 EUR, Per 0 LB, Matl Group 12 SUGARS/, Plnt ORL, and Stor. Location. The rest of the grid rows are empty. At the bottom of the grid, there are navigation buttons for sorting and filtering. Below the grid, there are buttons for "Default Values" and "Add Planning". A "Item Detail" button is located at the bottom left.

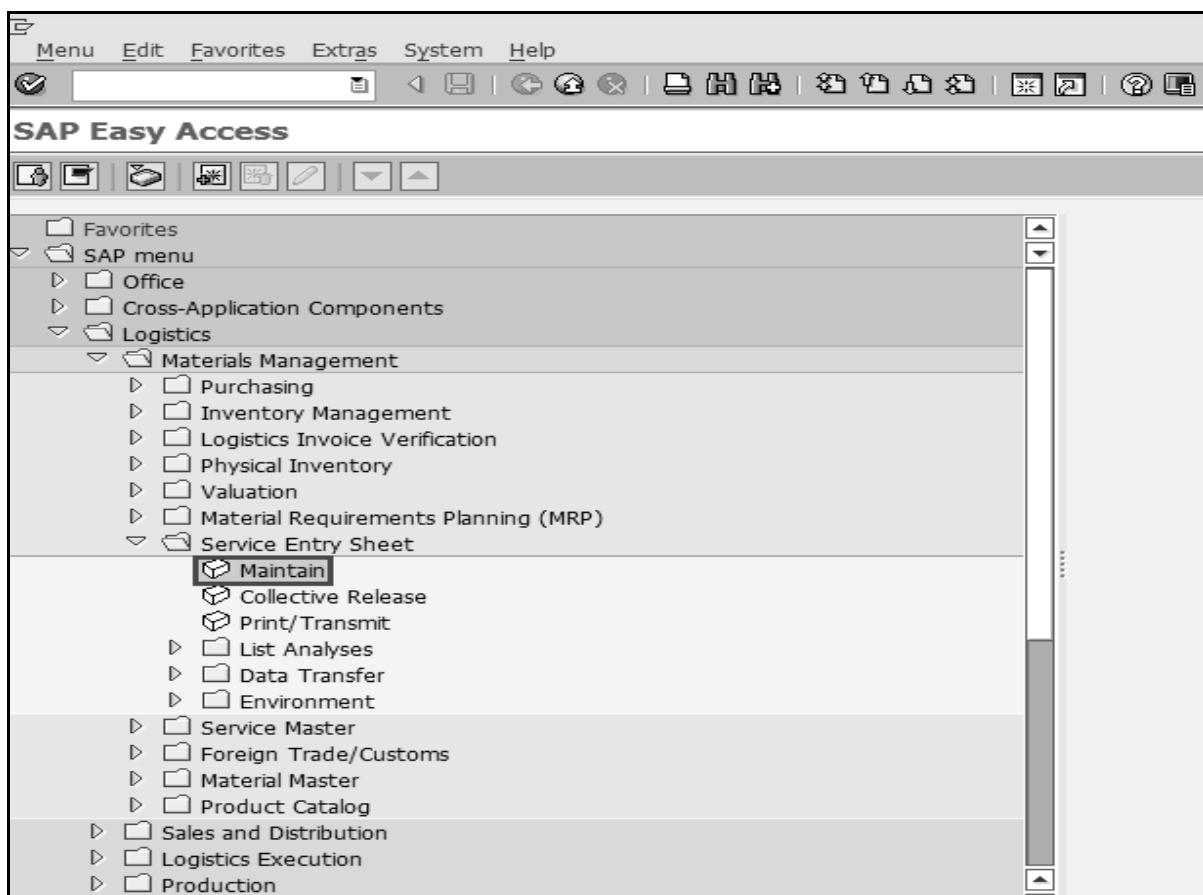
Service Entry Sheet

A service entry sheet stores a record of all the services that have been procured. In case of goods procured, we maintain a goods receipt document; whereas in case of services, we maintain a service entry sheet. It accommodates the charges that we need to pay to the vendor. Follow the steps given below to create a service entry sheet.

Path to Create Service Entry Sheet:

Logistics => Materials Management => Service Entry Sheet => Maintain
TCode: ML81N

Step 1: On the SAP Menu screen, select the Maintain execute icon by following the above path.



Step 2: Provide all the necessary details such as purchase order number, service number, quantity, and price. Click on Save. A new Service Entry Sheet will be created for the corresponding purchase order.

Line	D	P	C	U	Service No.	Short Text	Quantity	Un	Gross Price	Crct	Cost Center	Order
10							0.000		0.00	GBP		
20							0.000		0.00	GBP		
30							0.000		0.00	GBP		
40							0.000		0.00	GBP		
50							0.000		0.00	GBP		
60							0.000		0.00	GBP		
70							0.000		0.00	GBP		

21. VALUATION

Procurement process starts with creating a purchase order and ends with invoice verification. In the whole process, one of the important parts is material valuation. While creating purchase orders, material price is a mandatory field and it is automatically determined. It happens because material valuation is maintained in the SAP system in the material master. Material valuation represents integration between MM & FI (Financial Accounting) modules, since it updates the general ledger accounts in financial accounting. The key points to note about material valuation are as follows:

- Material valuation helps in determining the price of the material, and in which general ledger account it needs to be posted.
- Material valuation can happen at company code level or plant level.
- Material can be valued based on different types of procurement; it is known as **split valuation**.

Split Valuation

Split valuation helps in valuating the stocks of a material in the same valuation area (company or plant) differently. Some of the examples where split valuation is required are as follows:

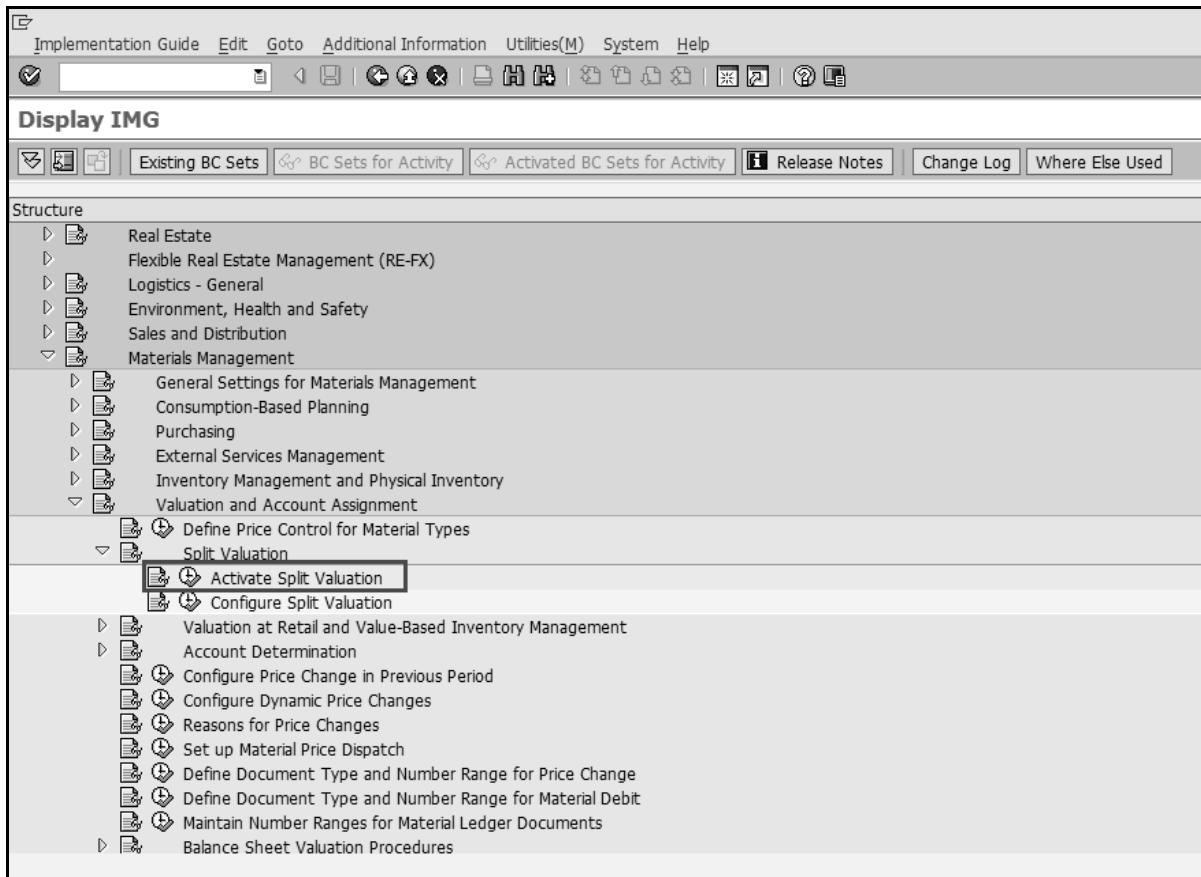
- Stock that is procured externally from a vendor has a different valuation price than the stock of an in-house production.
- Stock obtained from one vendor is valued at a different price than the stock obtained from another vendor.
- Same material having different batch may have different valuation prices.

Split Valuation needs to be activated before setting any other configuration. Follow the steps given below to activate split valuation.

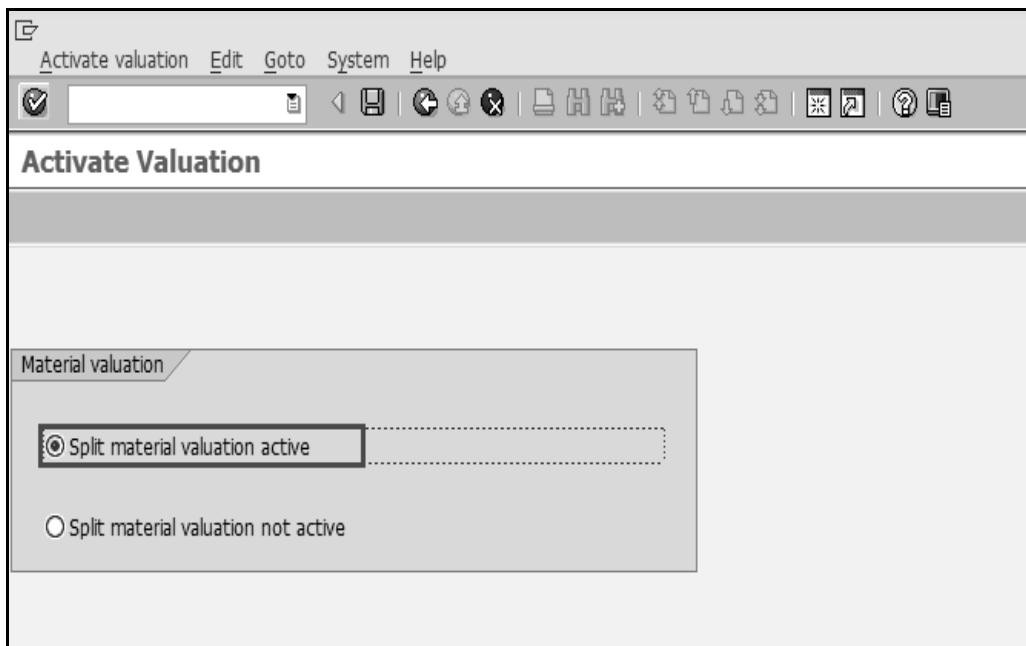
Path to Activate Split Valuation:

IMG => Materials Management => Valuation and Account Assignment => Split Valuation => Activate Split Valuation
TCode: OMW0

Step 1: On the Display IMG screen, select Activate Split Valuation by following the above path.



Step 2: Click the option Split Material Valuation Active. Click on Save. Split valuation is now activated.



Some important terms under split valuation are as follows.

- **Valuation Area:** Material may be valued at plant level or at company code level. The level at which materials are valued is known as valuation area.
- **Valuation Category:** Valuation category is the criteria on which material is split valued.
- **Valuation Type:** Valuation type specifies the features of a valuation category.

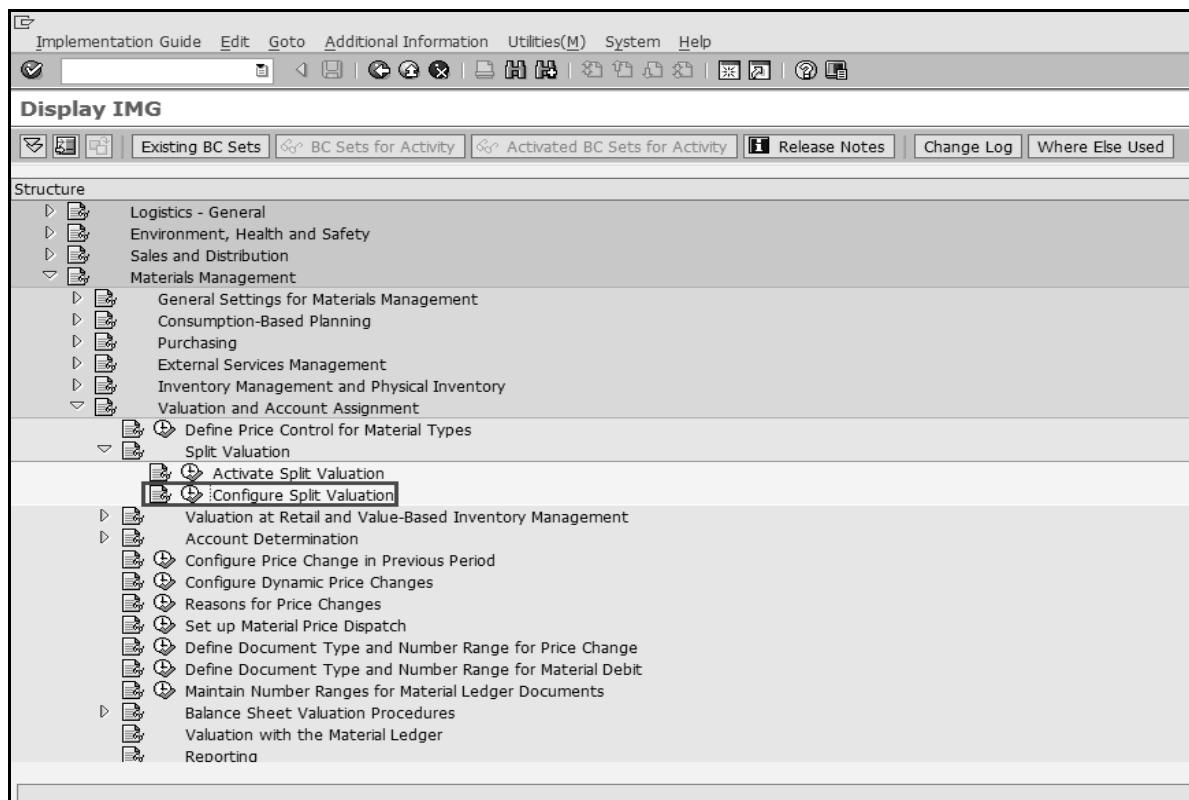
Split Valuation Configuration

Follow the steps given below to do split valuation configuration such as defining valuation category and valuation type.

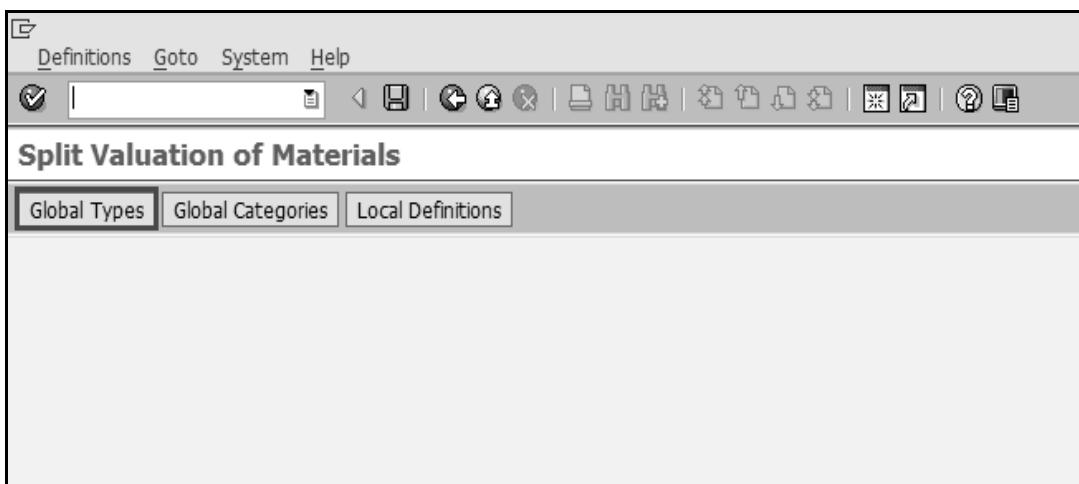
Path to Configure Split Valuation:

IMG => Materials Management => Valuation and Account Assignment => Split Valuation => Configure Split Valuation
TCode: OMWC

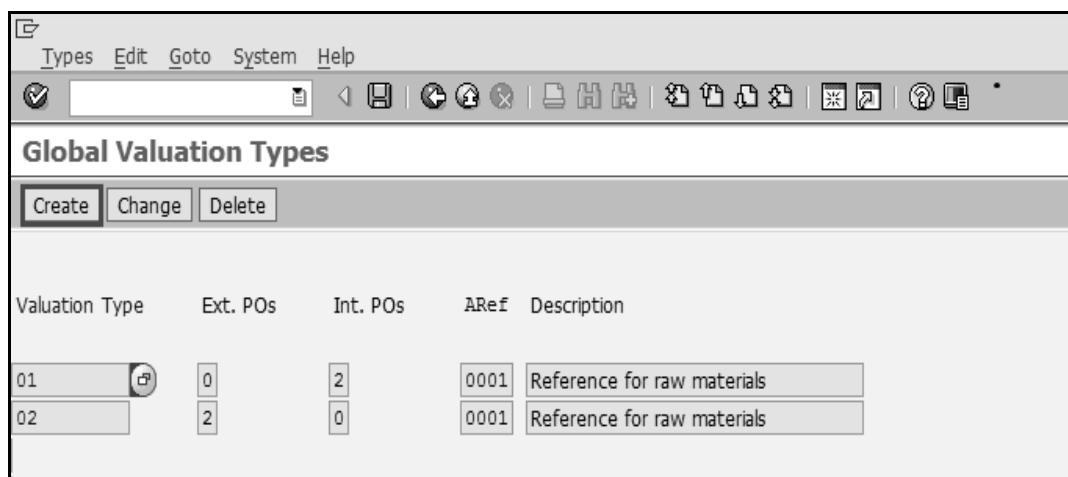
Step 1: On the Display IMG screen, select Configure Split Valuation by following the above path.



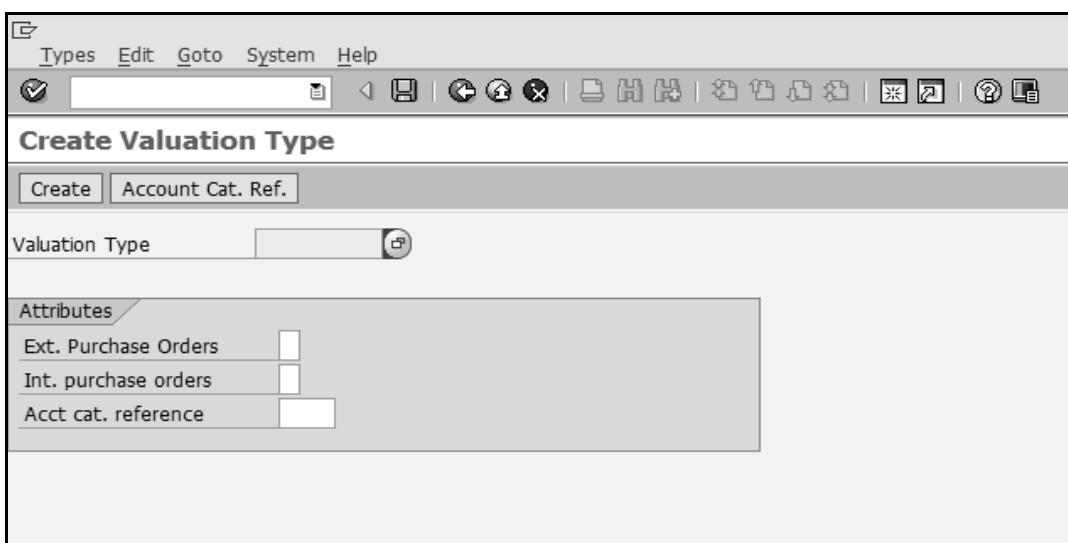
Step 2: Click Global Types to create valuation type.



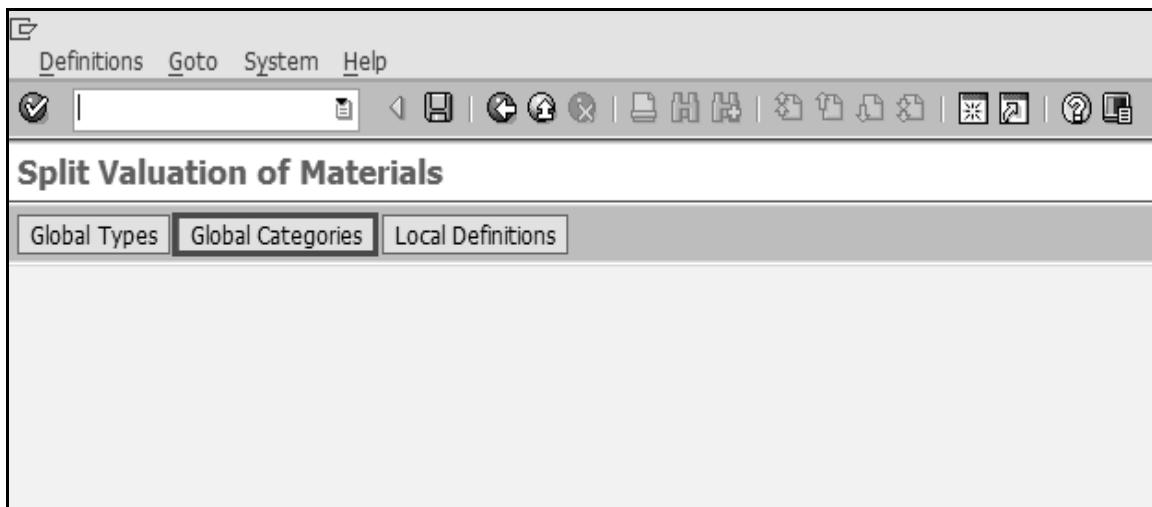
Step 3: Click the Create button.



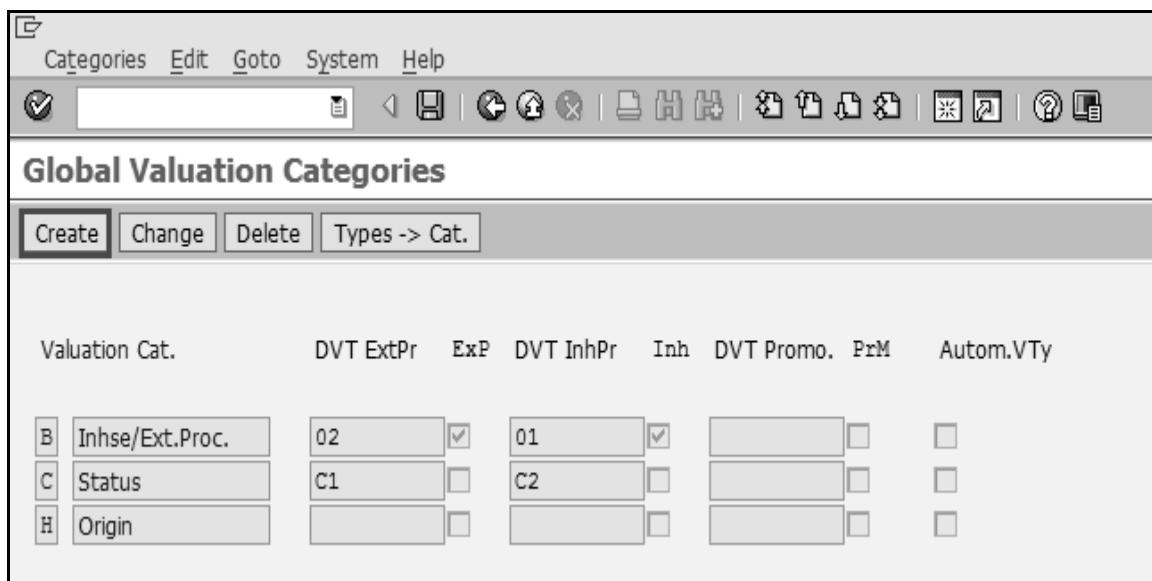
Step 4: Provide the name of the valuation type. Click on Save. A new Valuation Type will be created.



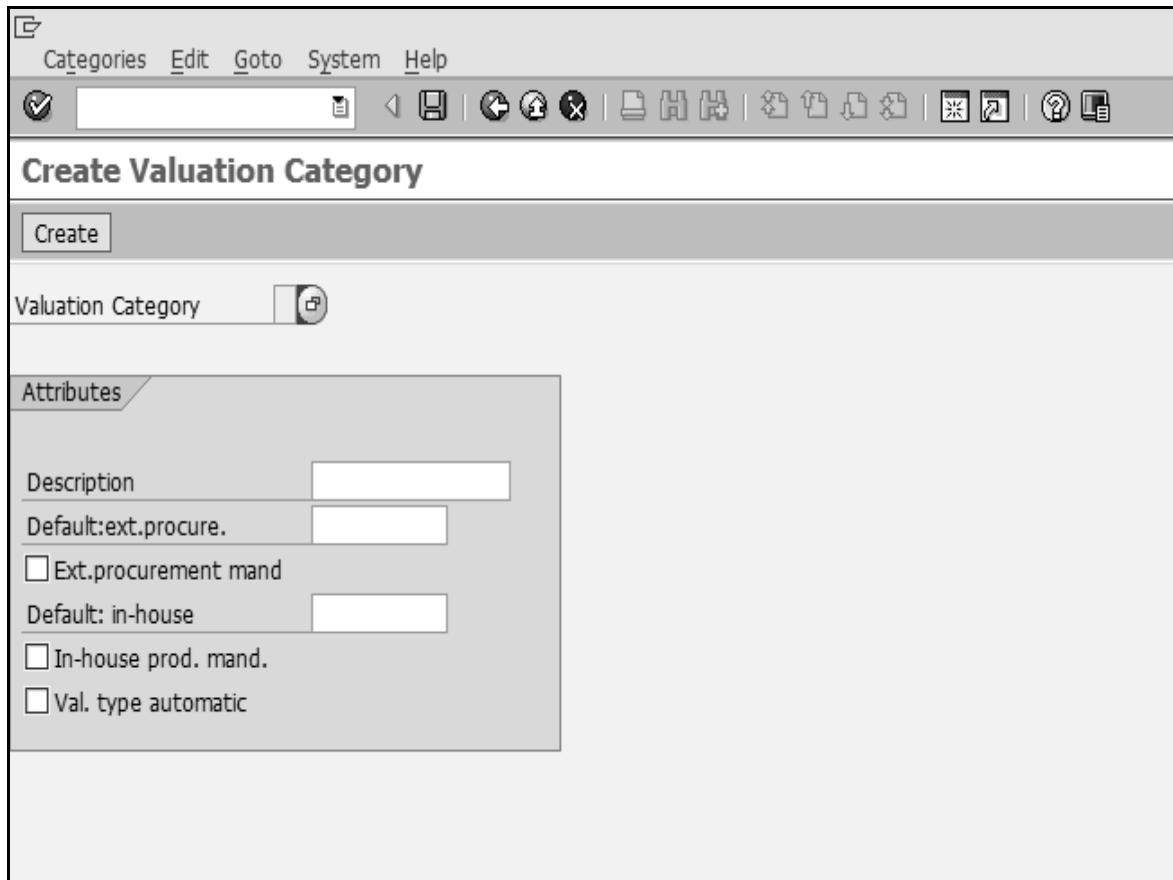
Step 5: Now go to the same screen and click Global Categories to create valuation category.



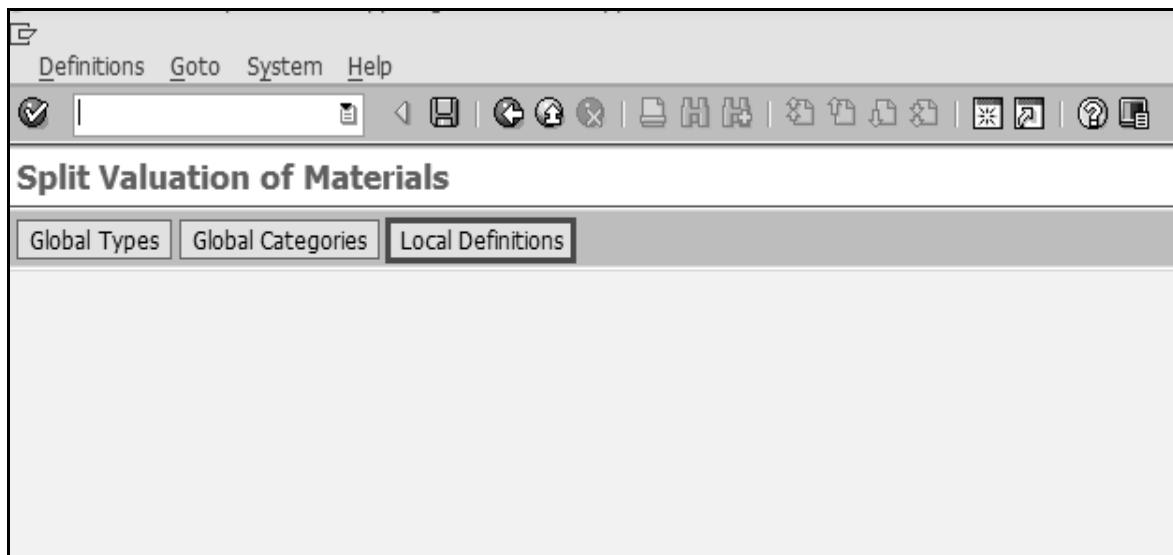
Step 6: Click the Create button.



Step 7: Provide the name of the valuation category. Click on Save. A new Valuation Category will be created.



Step 8: Now go to the same screen and click Local Definitions to map valuation type and valuation category.



Step 9: Click the Cats. -> OU button.

The screenshot shows the SAP MM interface for 'Local Definitions: Select Plant'. The title bar includes 'Definitions', 'Goto', 'System', and 'Help' menus. A toolbar below has icons for search, back, forward, and various system functions. The main area is titled 'Local Definitions: Select Plant' and contains three tabs: 'Cats. -> OU' (selected), 'Local Types', and 'Local Categories'. Below the tabs, there are two input fields: 'Plant' containing '0001' and 'Organizational unit name' containing 'Werk'. To the right, there are two more input fields: 'City' containing 'Walldorf' and 'Country' containing 'MONT'. The entire window has a standard SAP look with grey panels and black text.

Step 10: Provide valuation type, valuation category, and set the status as active, and then click the Activate button. Valuation category and valuation type are now mapped and both are activated.

The screenshot shows the SAP MM interface for 'Plant 001: Allocate Valuation Categories'. The title bar includes 'Definitions', 'Edit', 'Goto', 'System', and 'Help' menus. A toolbar below has icons for search, back, forward, and various system functions. The main area is titled 'Plant 001: Allocate Valuation Categories' and contains two tabs: 'Local Types' (selected) and 'Local Categories'. Below the tabs, there is a table titled 'Allocation of Valuation Categories' with columns for Status, Valuation Cat., DVT ExtPr, ExP, DVT InhPr, Inh, DVT Promo., PrM, and VI. Two rows are shown: one for valuation type 'B' (Status: Active, Valuation Cat: B (hhse/Ext.Proc.), DVT ExtPr: 02, ExP: 01) and one for valuation type 'C' (Status: Active, Valuation Cat: C Status, DVT ExtPr: C1, ExP: C2). At the bottom, there are buttons for 'Activate' and 'Deactivate', and a status line showing 'Entry 1 of 1'.

After maintaining the valuation type and valuation category, you can mention them in the material master as shown below.

Go to mm02 (Change screen for material master). Here you can maintain the valuation category and valuation class in accounting view. On this basis, valuation of the material will be done in a purchase order.

The screenshot shows the SAP MM Change Material screen (mm02). The title bar reads "Change Material 10000054". The menu bar includes "Material", "Edit", "Goto", "Environment", "System", and "Help". The toolbar contains various icons for file operations like Open, Save, Print, and Copy.

General Valuation Data

Total Stock	0.000	Base Unit	KG kilo gram
Division	01	Valuation Cat.	<input type="text"/>
Valuation Class	7900	<input type="checkbox"/> Valuated Un	<input checked="" type="checkbox"/> ML act.
VC: Sale Ord. Stk		Price Determ.	<input type="text"/> Mat. Price Analysis
Project Stock VC			<input type="text"/> 3 Single-/Multilevel

Prices and values

Currency	USD	USD	USD
Company code currency	<input type="text"/>	Group currency	<input type="text"/>
Standard Price	3.67	3.67	3.67
Per. unit price	3.87	3.87	3.87
Price Unit	1	1	1
Prc. Ctrl	S	S	S
Inventory Value	0.00	0.00	0.00
Value/per.unit pr	0.00	0.00	0.00
Future price	<input type="text"/>	<input type="text"/>	<input type="text"/>
Future price from	<input type="text"/>	<input type="text"/>	<input type="text"/>

22. ACCOUNT DETERMINATION

In SAP MM, procurement process involves the cost of goods and services that needs to be paid to the vendor by an organization. The cost being paid must be posted in an organization necessarily in a correct general ledger (G/L) account. It is quite impossible to recollect and feed the correct G/L account every time during procurement. To avoid this inconvenience, the SAP system can be configured so that the system will automatically determine the correct G/L account that needs to be posted. G/L account is posted when goods receipt is done as well as during clearing the invoice verification. Account determination deals with the following terms:

- Define Valuation Control
- Group together Valuation Areas
- Define Valuation Classes
- Configure Automatic Posting

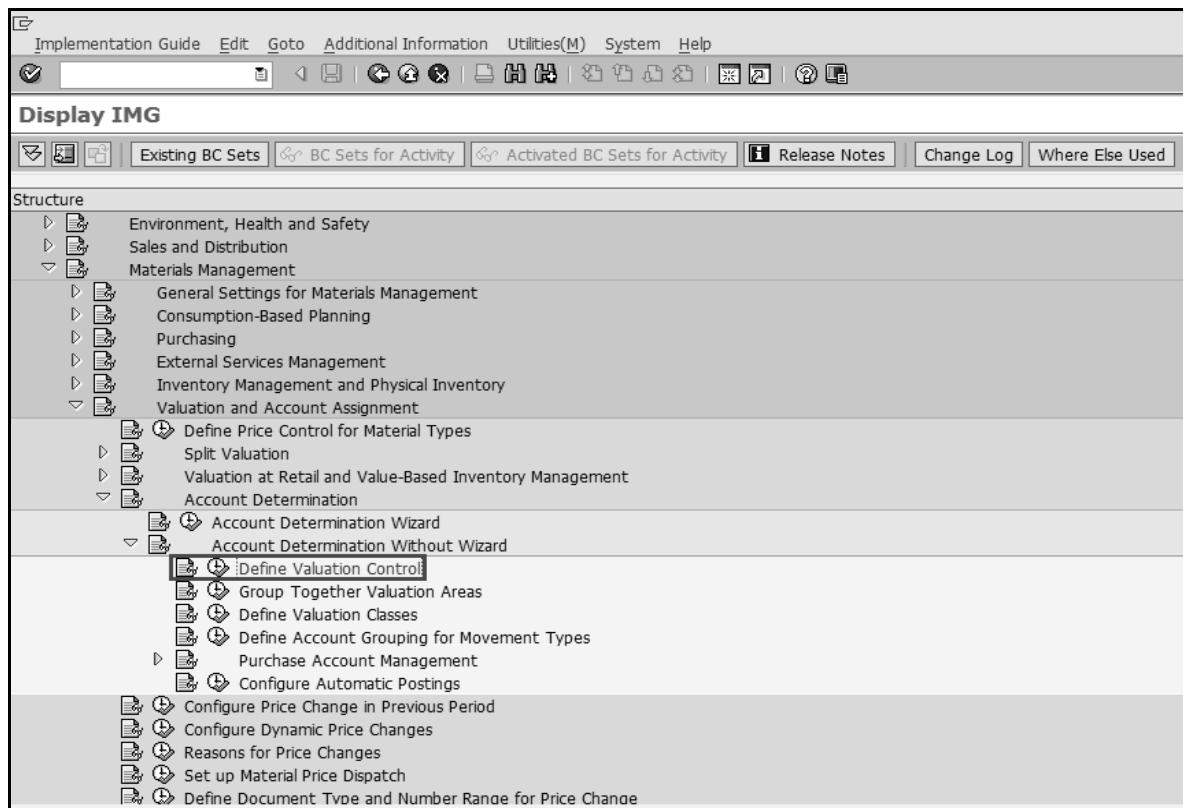
Define Valuation Control

Valuation areas can be grouped together and can be assigned to one grouping code, if they belong to the same G/L account. For example, different plants under one company code can be assigned the same valuation grouping code and vice versa. Before this, valuation grouping code must be activated and this can be done by following the steps given below.

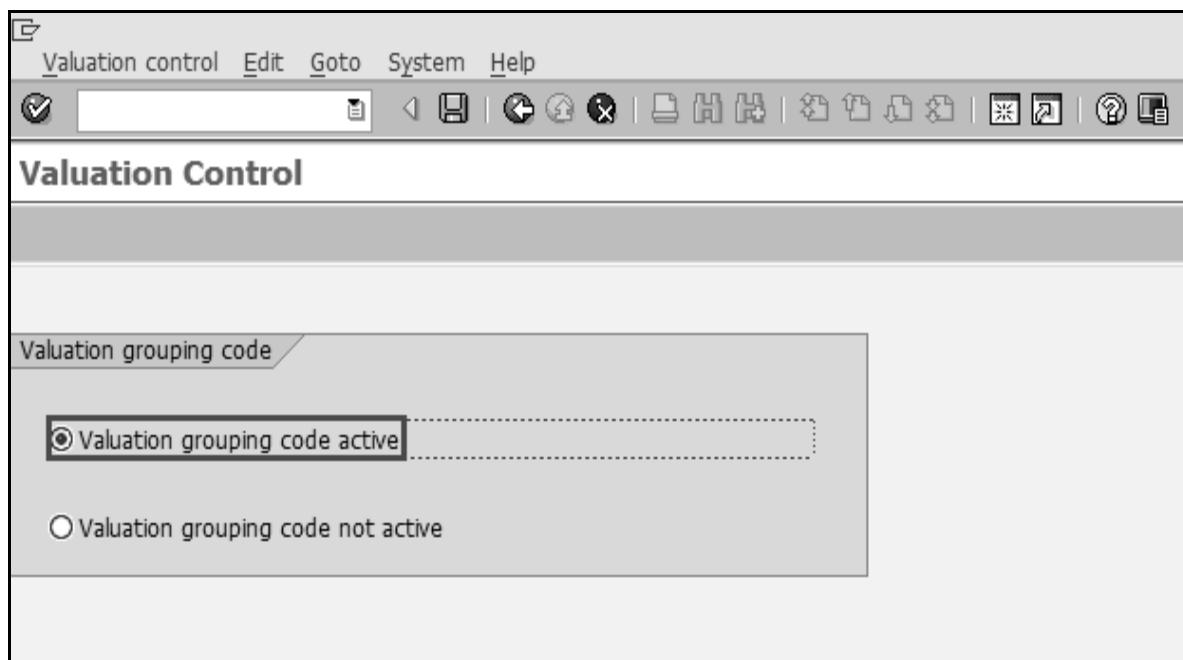
Path to Activate Valuation Grouping Code:

IMG => Materials Management => Valuation and Account Assignment =>
Account Determination => Account Determination without Wizard => Define
Valuation Control
TCode: OMWM

Step 1: On the Display IMG screen, select Define Valuation Control by following the above path.



Step 2: Select Valuation grouping code. Click on Save. Valuation grouping code is now activated.



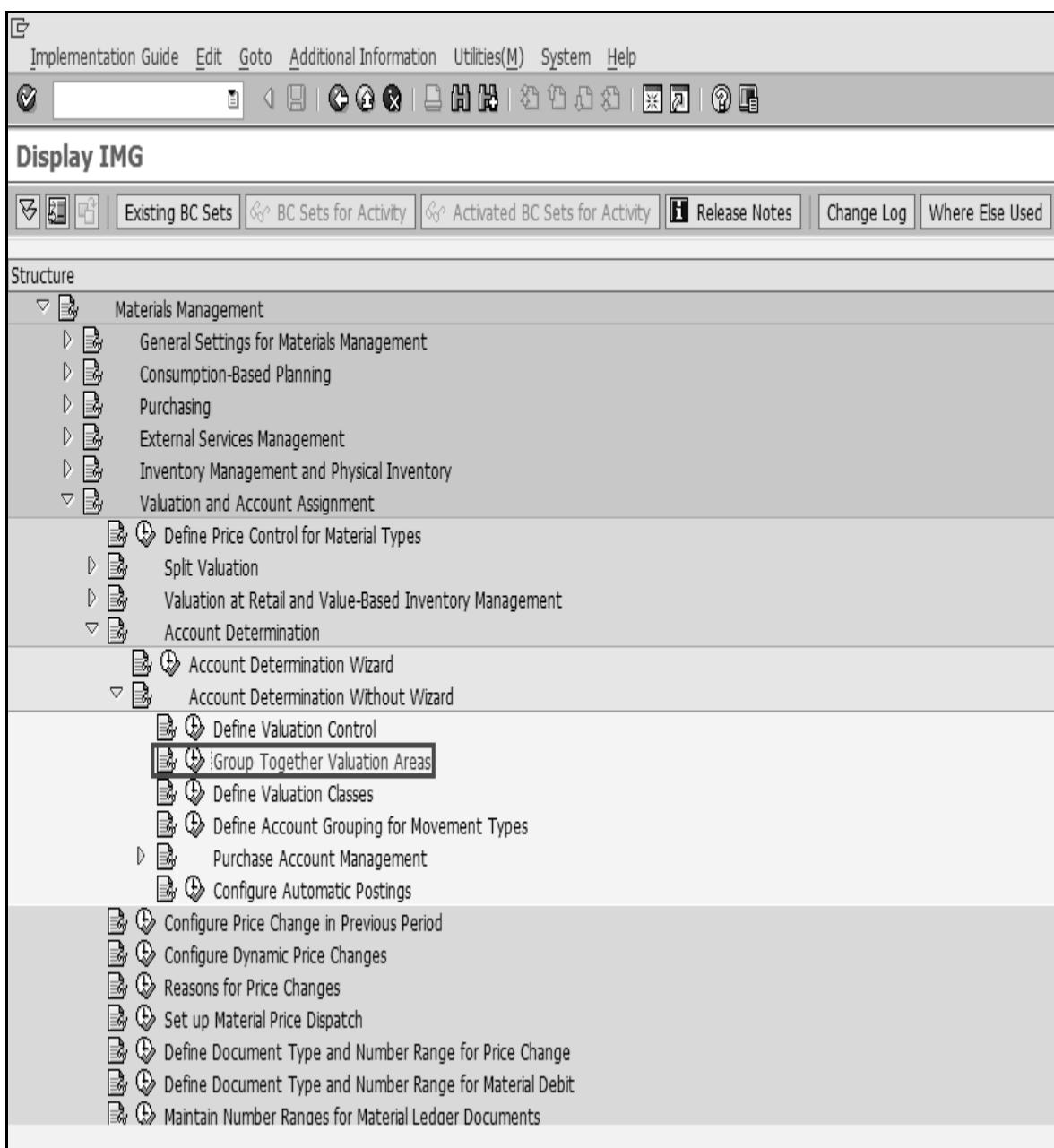
Group Together Valuation Areas

In valuation grouping, valuation area and valuation grouping code are assigned to the company code. This can be done by following the below steps.

Path to Define Valuation Area and Valuation Grouping Code:

IMG => Materials Management => Valuation and Account Assignment => Account Determination => Account Determination without Wizard => Group Together Valuation Areas
TCode: OMWD

Step 1: On the Display IMG screen, select Group Together Valuation Areas by following the above path.



Step 2: Here you can define a valuation area with grouping code, and assign them to a company code. Click on Save. Valuation area and valuation grouping code are now defined for a company code.

Val. Area	CoCode	Company Name	Chrt/Accts	Val.Grp Code
0001	0001	BP A.G.	INT	Z001

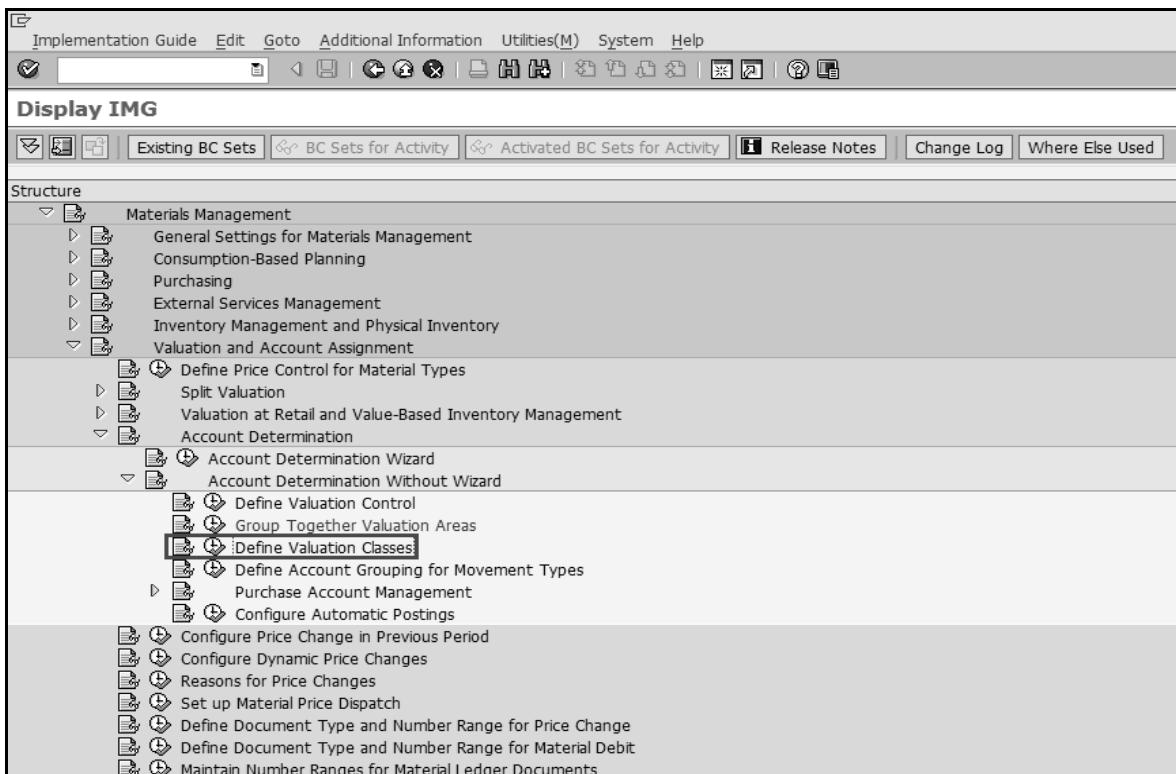
Define Valuation Classes

Valuation class categorizes the G/L account on the basis of material type. For example, raw material will have different G/L account than the finished material, as the costs will be different in both the cases. Account reference is also maintained along with the valuation class. Account reference and valuation class can be defined by following the steps given below.

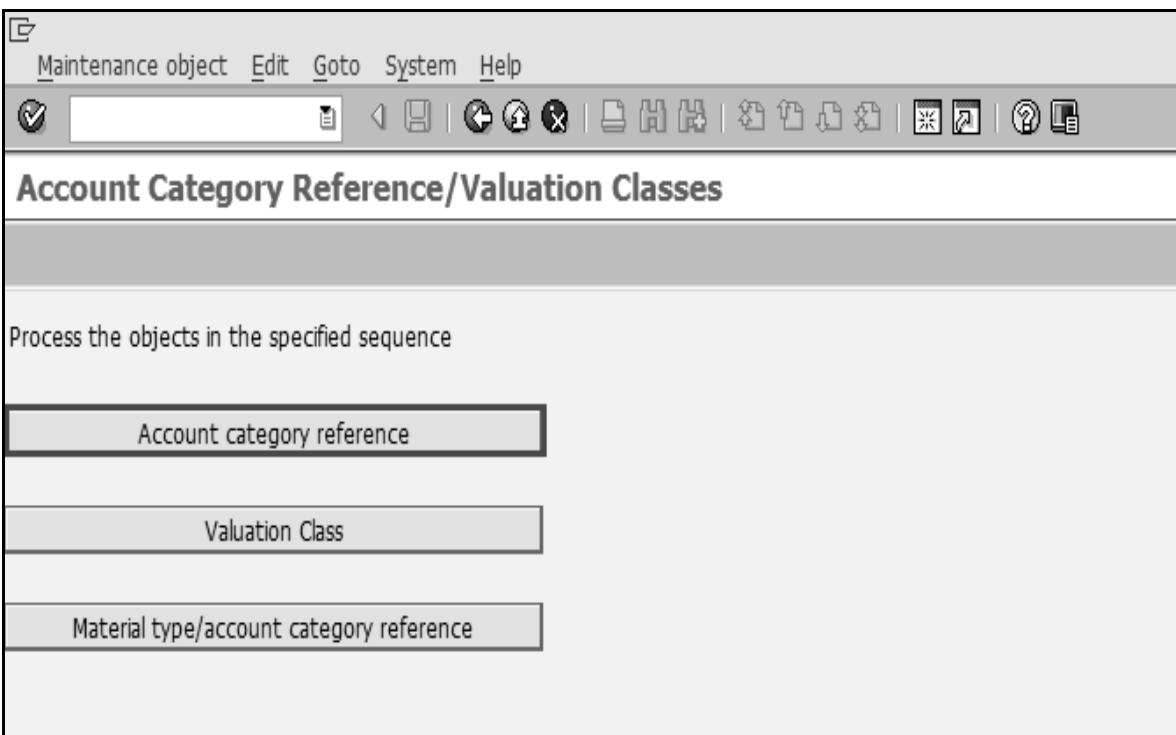
Path to Define Account Reference and Valuation Class:

IMG => Materials Management => Valuation and Account Assignment => Account Determination => Account Determination without Wizard => Define Valuation Classes
TCode: OMSK

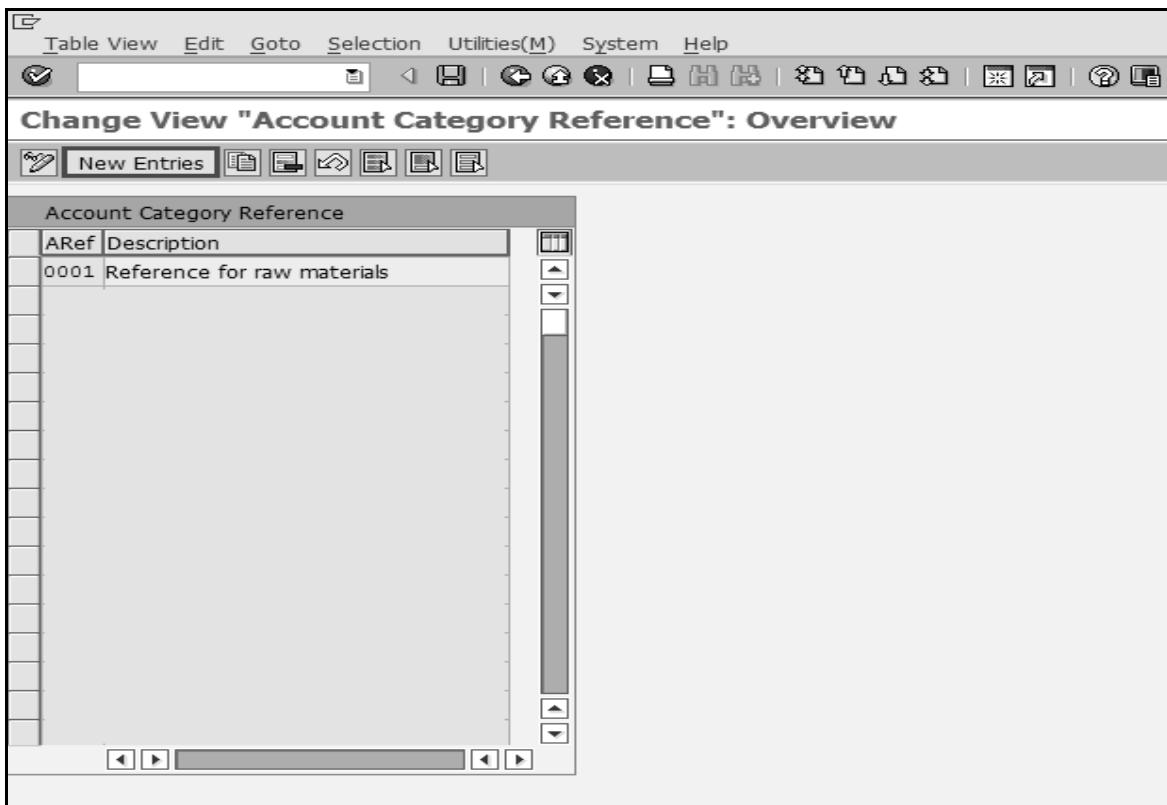
Step 1: On the Display IMG screen, select Define Valuation Classes by following the above path.



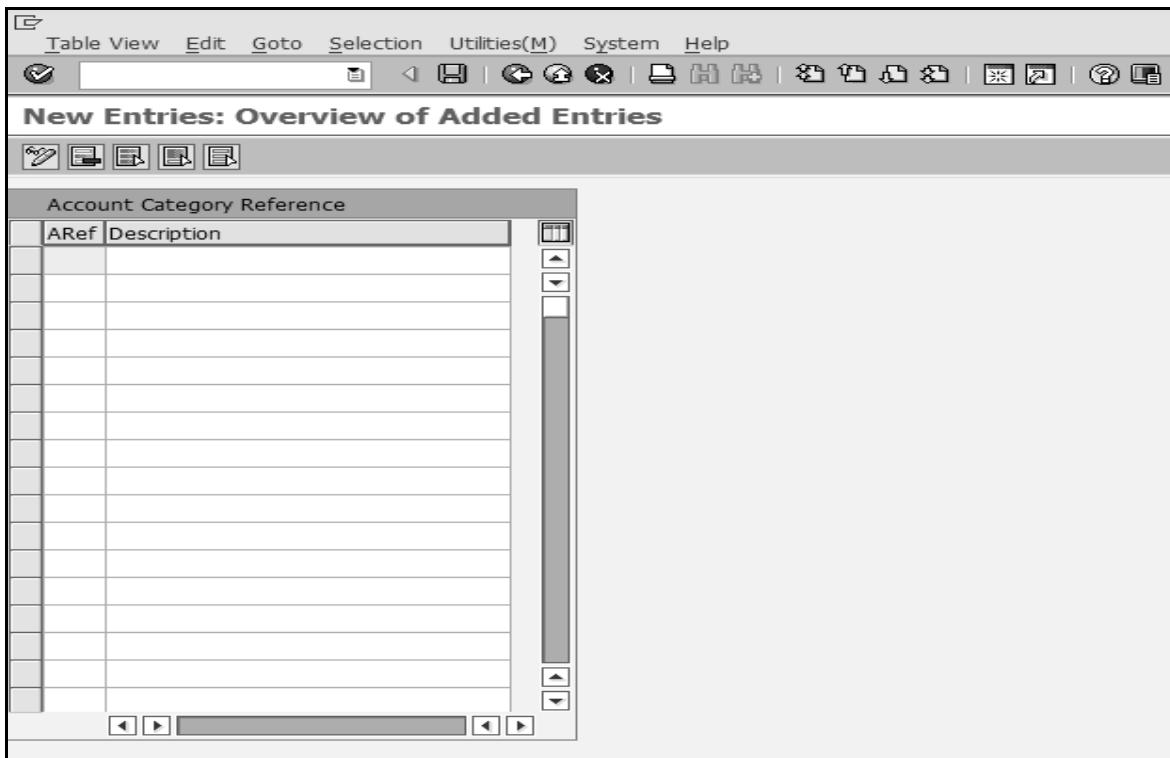
Step 2: Click the Account Category Reference button.



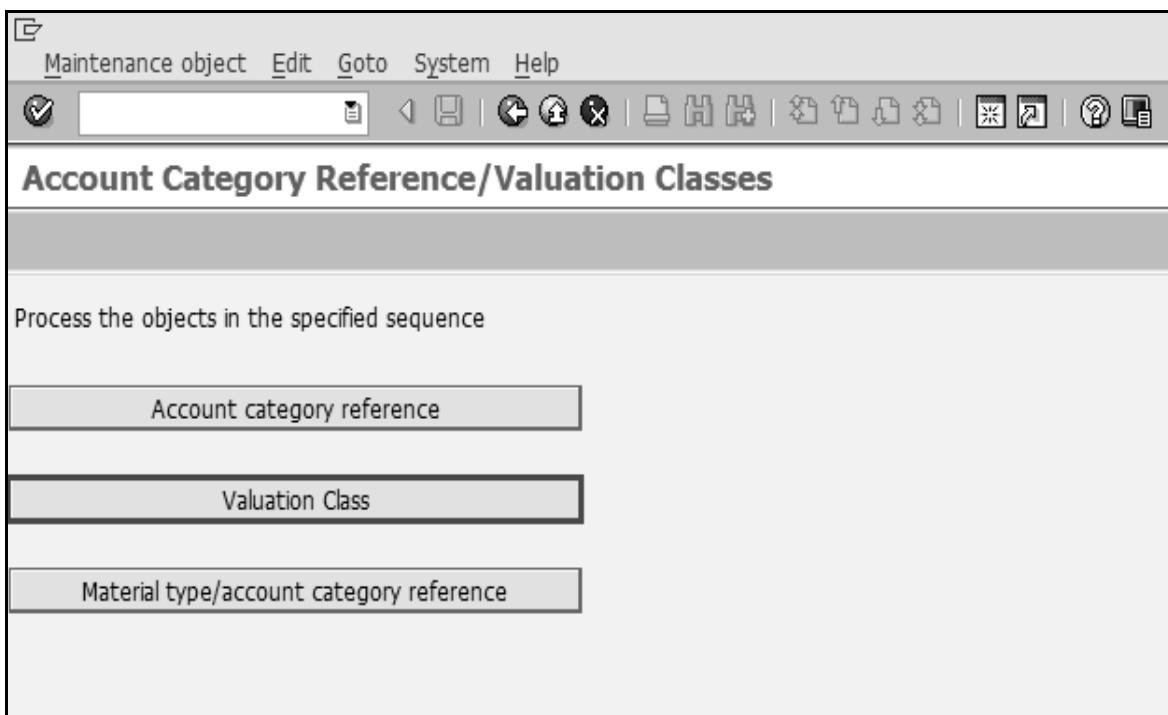
Step 3: Click New Entries.



Step 4: Provide the name of ARef (Account reference) along with its description.



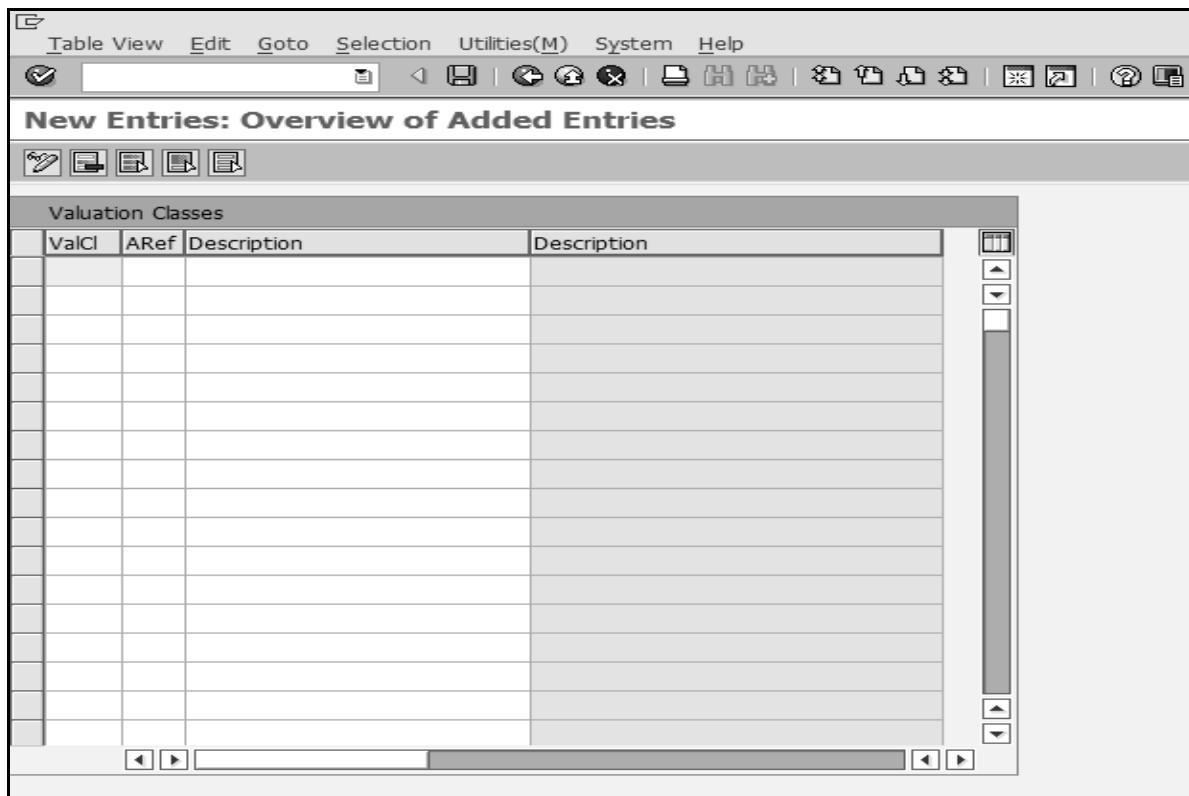
Step 5: Now go to same screen and click Valuation Class.



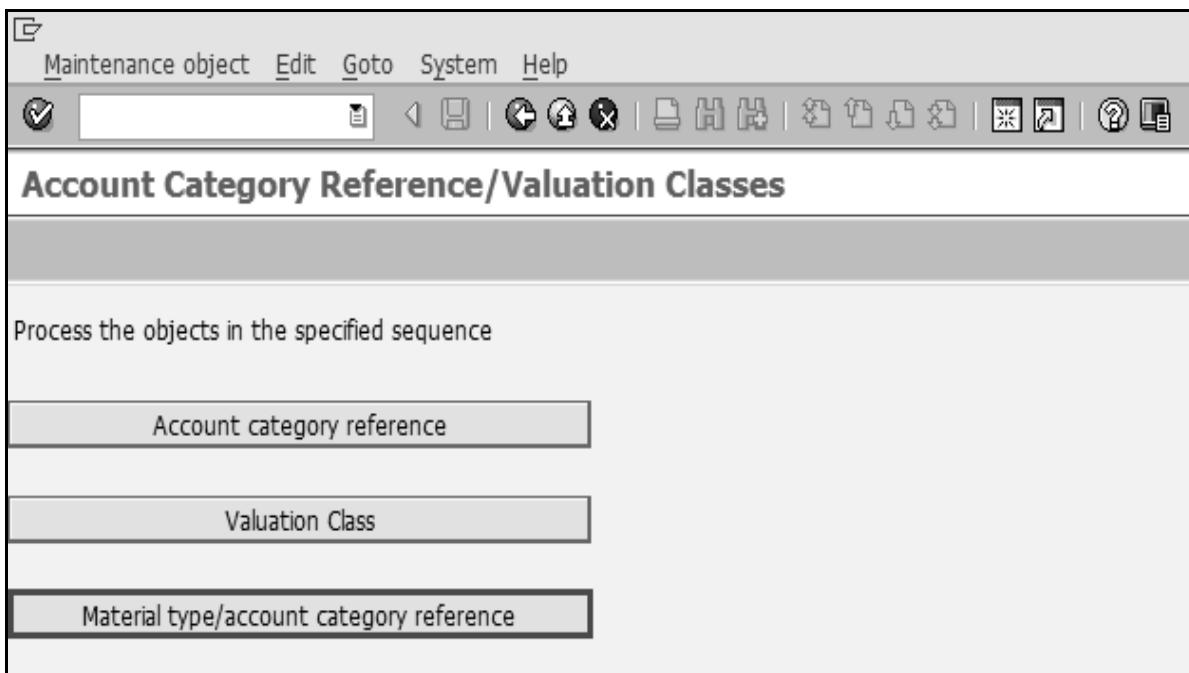
Step 6: Click New Entries.



Step 7: Provide the name of valuation class, ARef (Account reference), and description of valuation class.



Step 8: Now go to the same screen and click Material Type/Account Category Reference.



Step 9: Here you can map material type with ARef (Account reference). Click on Save. G/L account can now be posted for different material types.

MTyp	Material type descr.	ARef	Description
AB.	Waste	007	Ref. for nonvaluated
CB.	Compatible Unit		

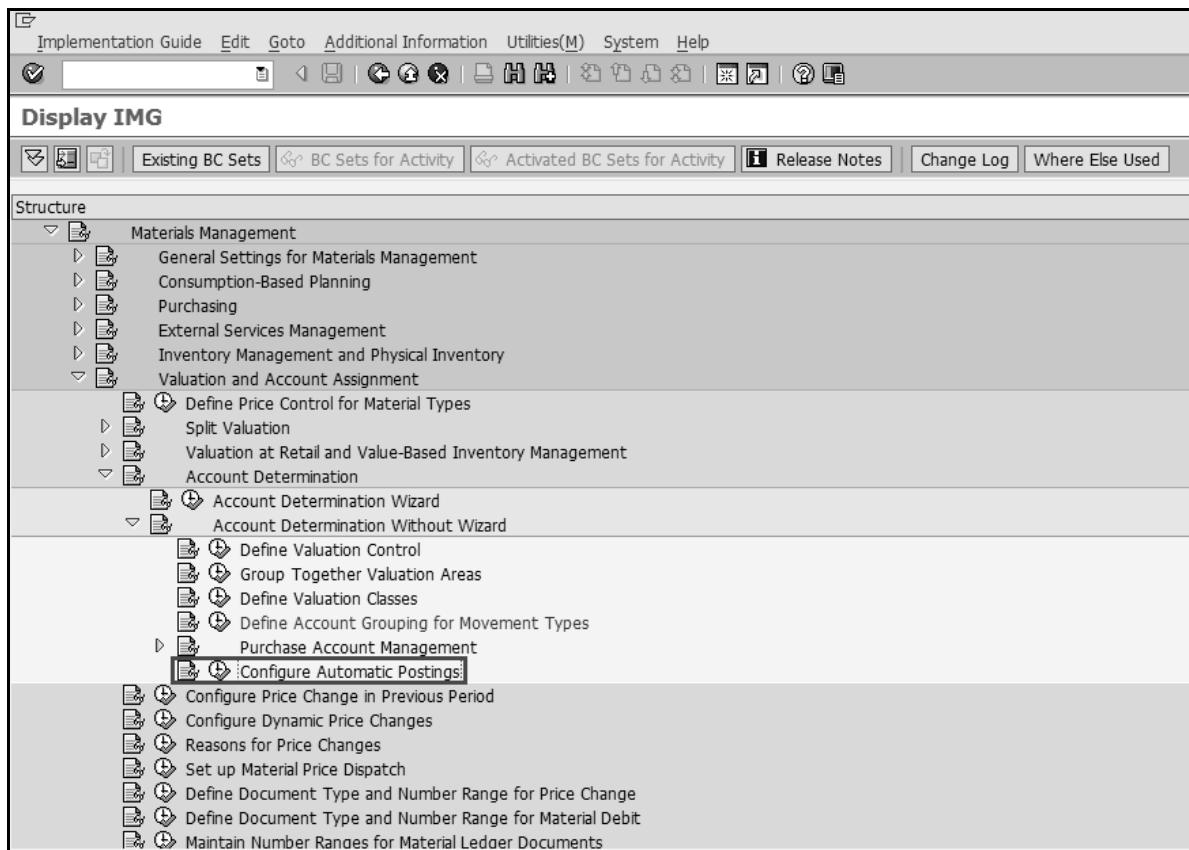
Configure Automatic Posting

G/L account is automatically determined for each of the transactions. It happens so because automatic postings are configured in the SAP system. Automatic posting can be configured by following the steps given below.

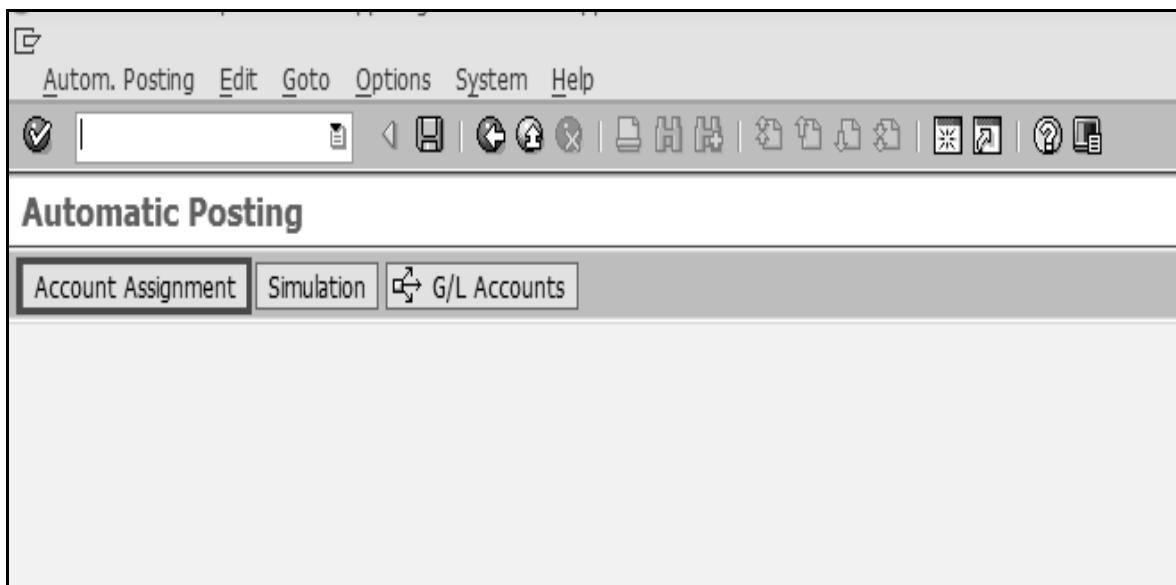
Path to Configure Automatic Posting:

IMG => Materials Management => Valuation and Account Assignment =>
Account Determination => Account Determination without Wizard => Configure
Automatic Postings
TCode: OMWB

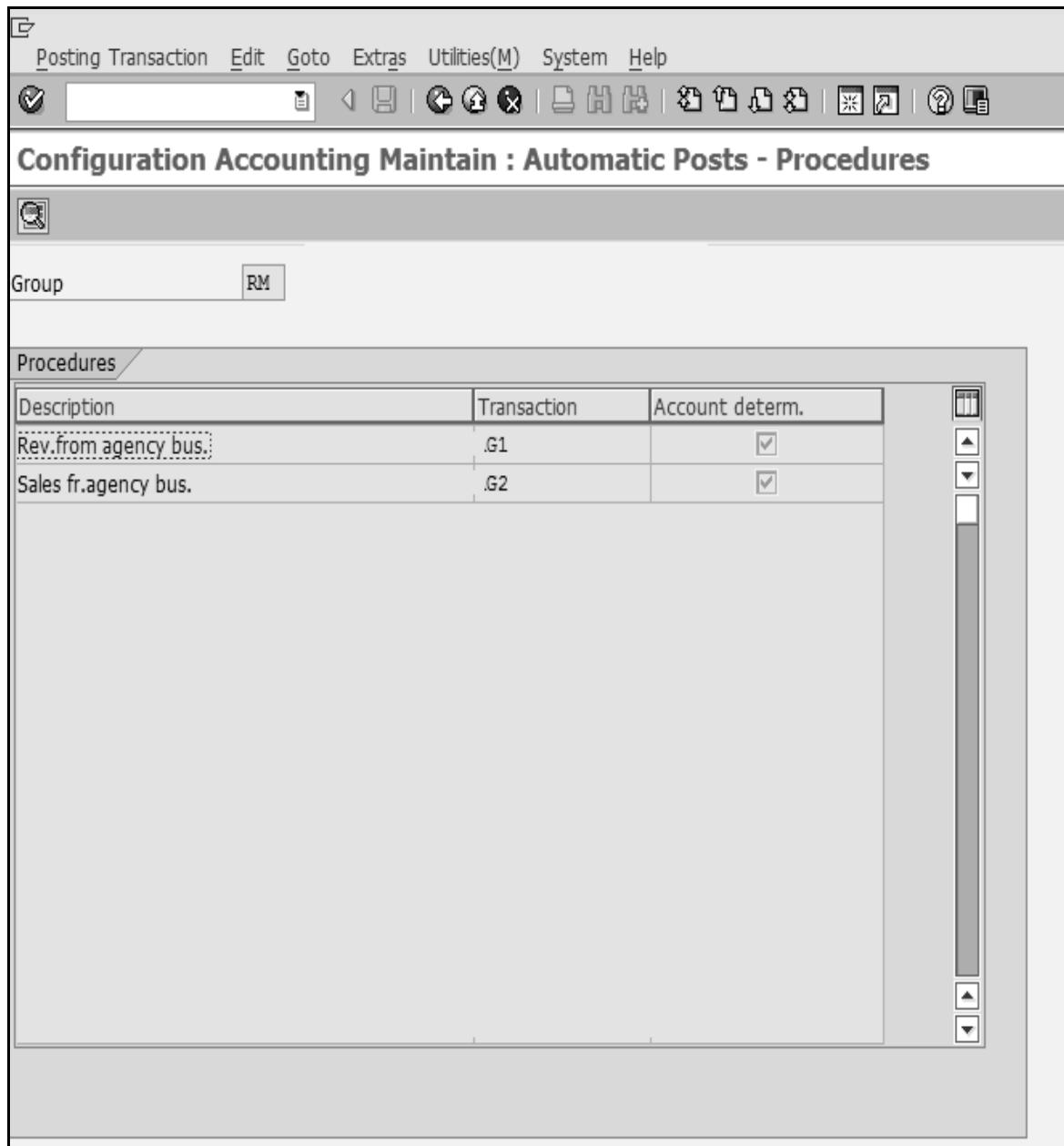
Step 1: On the Display IMG screen, select Configure Automatic Postings by following the above path.



Step 2: Click Account Assignment.



Step 3: Here you can maintain the transaction for which automatic account determination is there. Click on Save. Automatic posting for transactions is now configured.



23. CONFIGURATION

SAP MM is flexible enough to allow its configurations to be modified in the background to suit the business requirements of an organization. Configurations help in making custom enhancements in the structure. This chapter describes some of the important configurations in SAP MM.

Assign Fields to Field Selection Groups

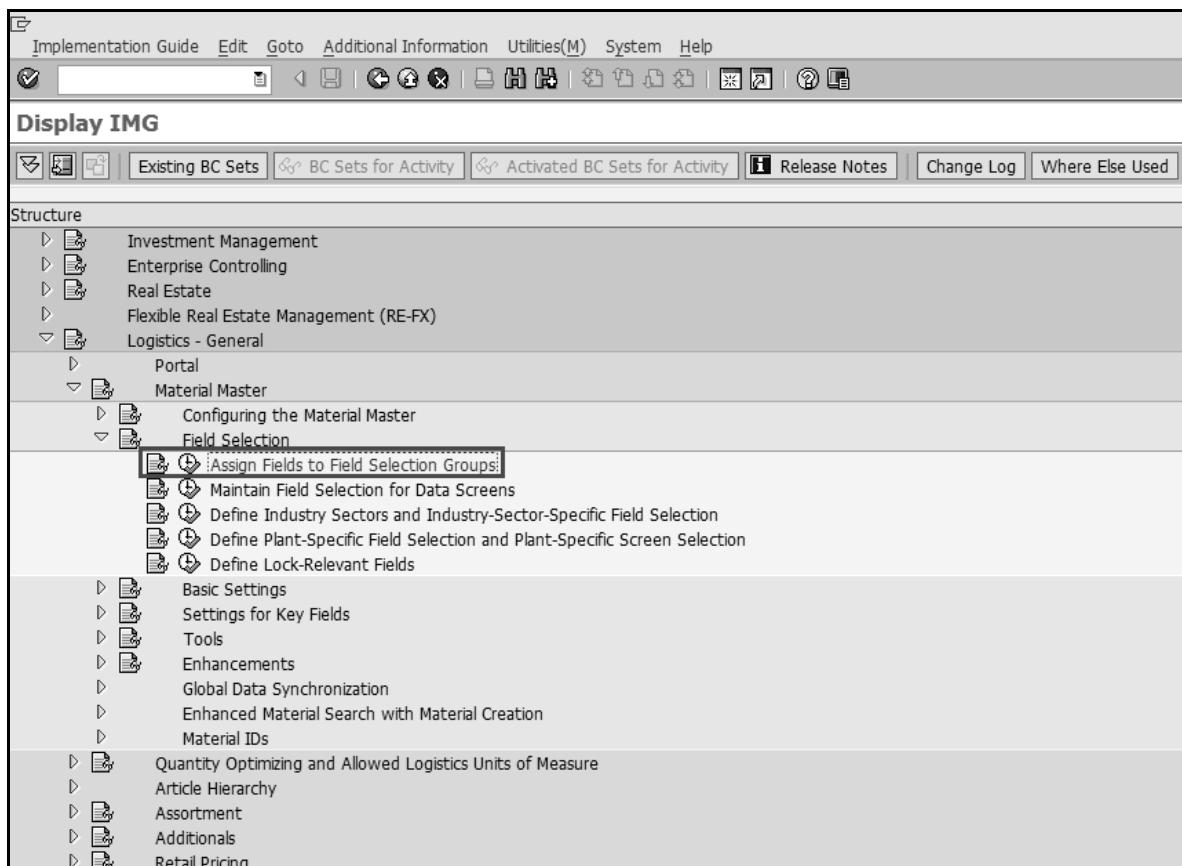
This configuration allows one to make some fields optional, hidden, or mandatory in the master record. Follow the steps given below to set this configuration.

Path to Assign Fields to Field Selection Groups:

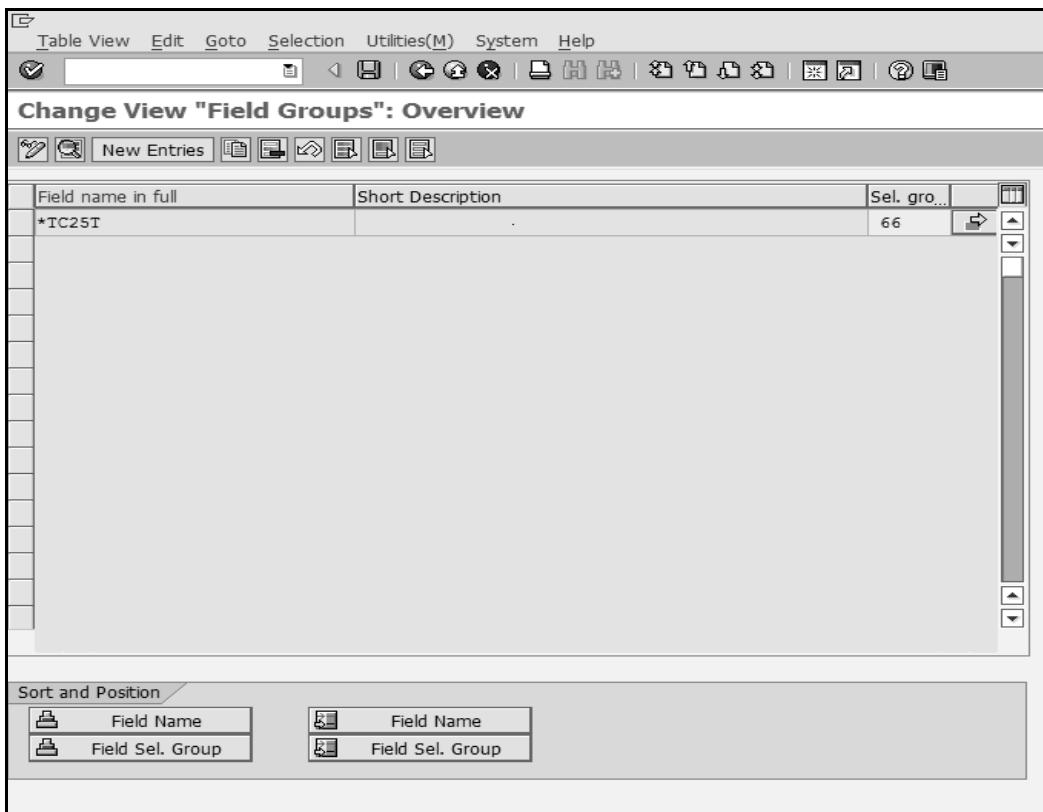
IMG => Logistic General => Material Master => Field Selection => Assign Fields to Field Selection Groups

TCode: OMSR

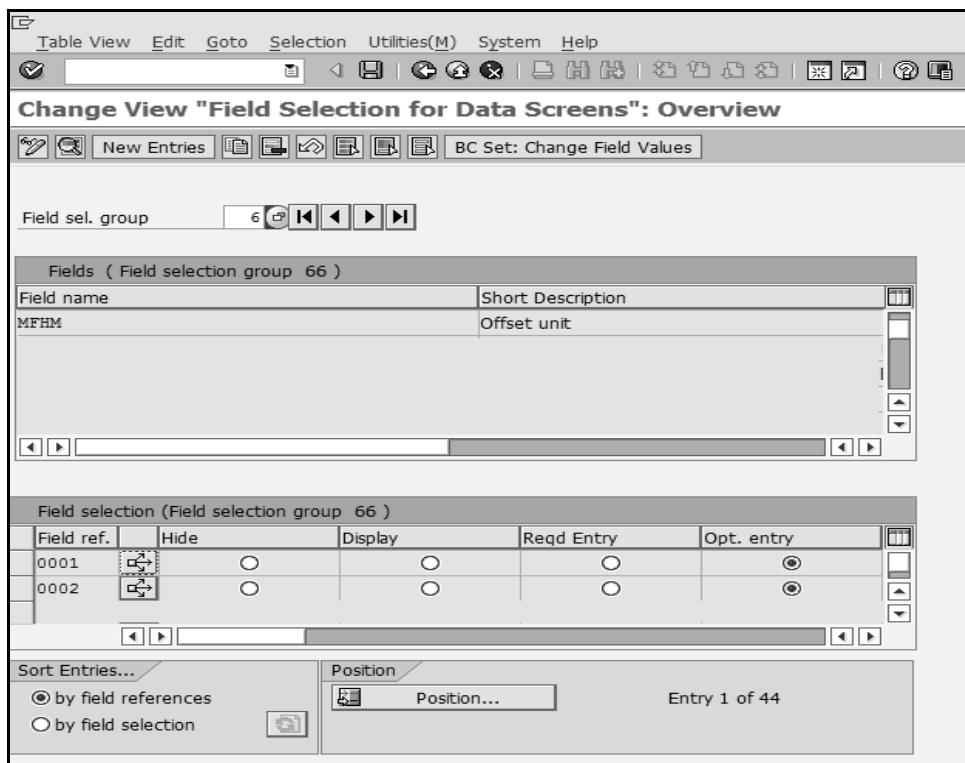
Step 1: On the Display IMG screen, select Assign Fields to Field Selection Groups by following the above path.



Step 2: Select the entry in which you want to make the changes.



Step 3: Here you can change the properties of the fields as hidden, display, required entry, or optional entry. Click on Save. Field Groups are now set with the desired field entries.



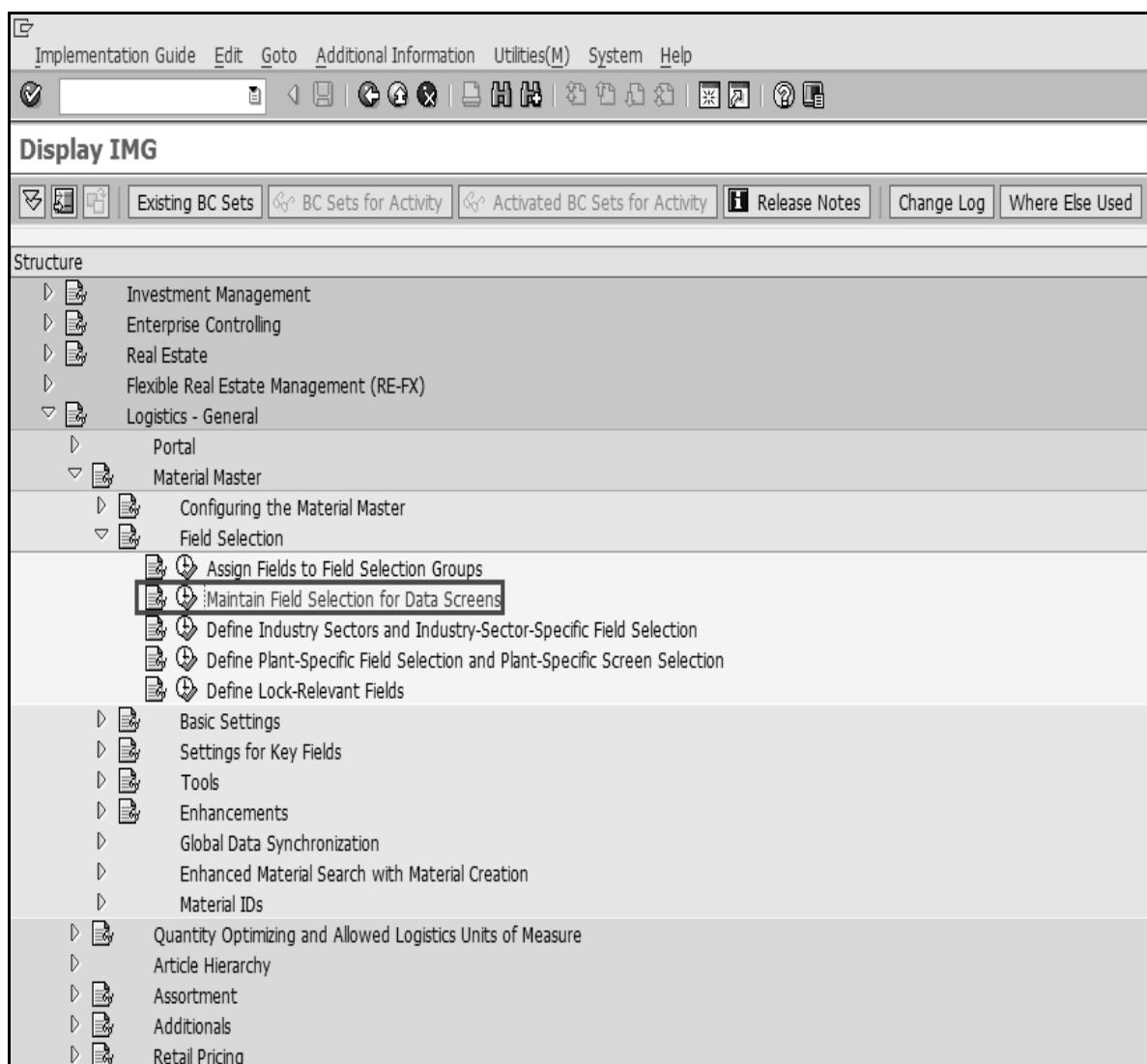
Maintain Field Selection for Data Screens

This configuration allows one to make some data screens in the master data as optional, hidden, or mandatory. Follow the steps given below to set this configuration.

Path to Maintain Field Selection for Data Screens:

IMG => Logistic General => Material Master => Field Selection => Maintain Field Selection for Data Screens
TCode: OMS9

Step 1: On the Display IMG screen, select Maintain Field Selection for Data Screens by following the above path.



Step 2: Select the field selection group in which you want to make changes. Here you can make changes in the field reference as hidden, display, required entry, or optional entry. Click on Save. Field selection for data screens is now maintained.



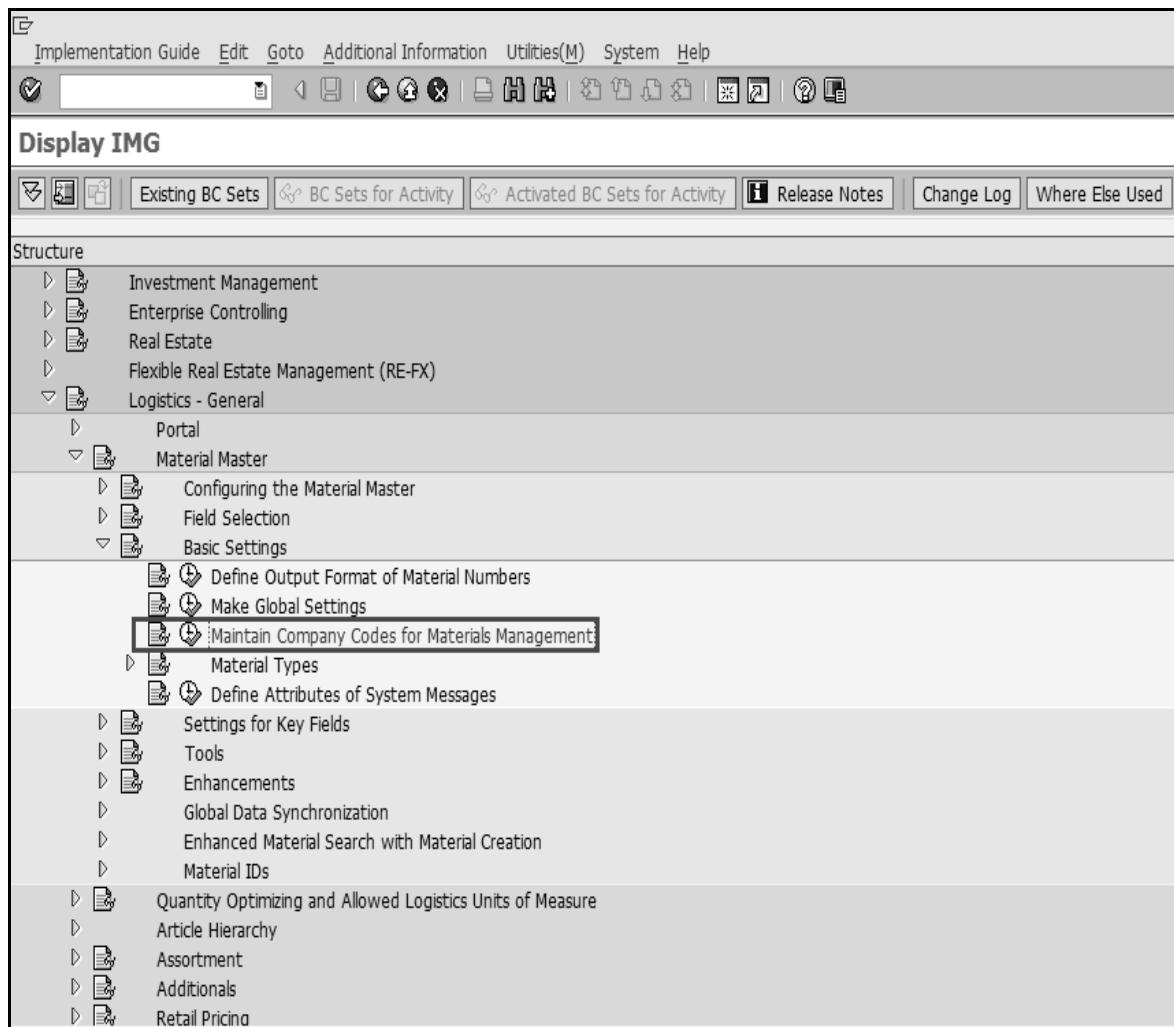
Maintain Company Codes for Materials Management

This configuration allows one to maintain company codes with a period along with the fiscal year. Follow the steps given below to set this configuration.

Path to Maintain Company Codes for Materials Management:

IMG => Logistic General => Material Master => Basic Settings => Maintain Company Codes for Materials Management
TCode: OMSY

Step 1: On the Display IMG screen, select Maintain Company Codes for Materials Management by following the above path.



Step 2: Provide details such as name, company code, along with the fiscal year and the period for that. Click on Save. Company code is now maintained for materials management.

CoCd	Company Name	Year	Pe	FYr	MP	FYr	LM	ABp	DBp	
0001	SAP A.G.	1998	3	1998	2	1997	12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Define Attributes of System Messages

Sometimes the system does not allow us to save a document when its information is incomplete. In such cases, the system issues some messages to indicate the probable cause of error. These system messages can be set up by following the steps given below.

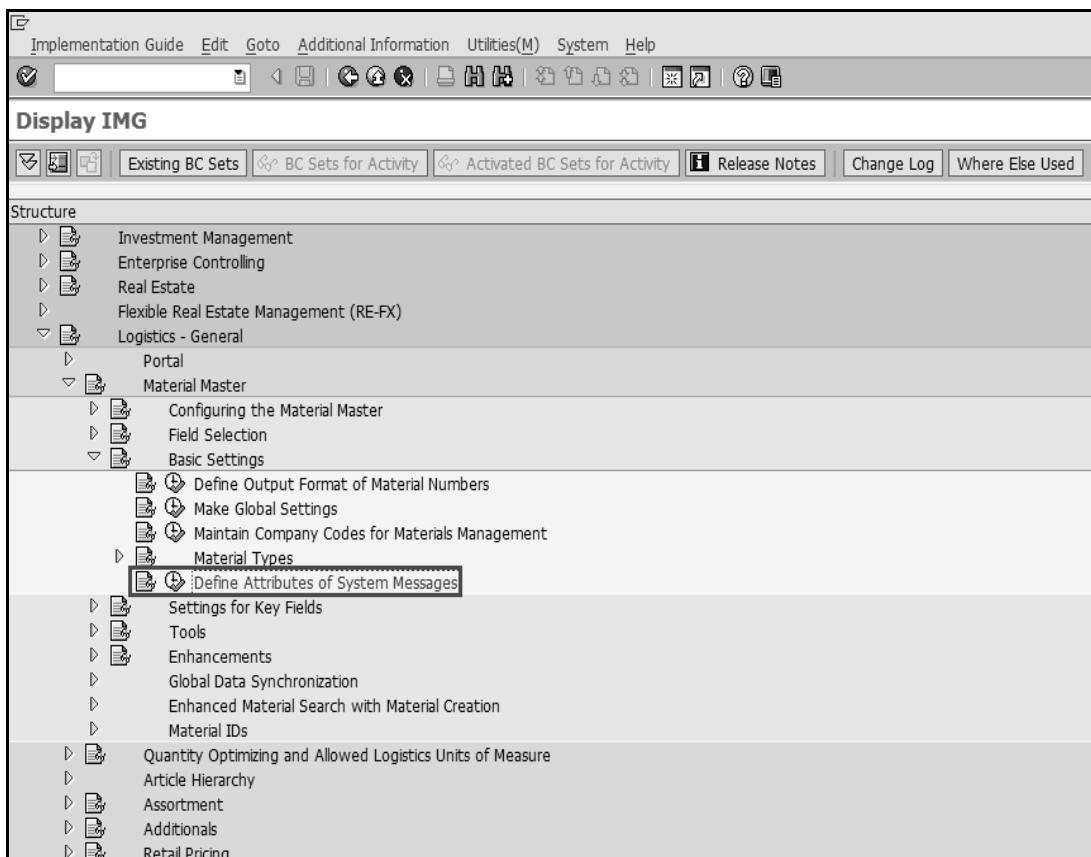
Path to Define Attributes of System Messages:

IMG => Logistic General => Material Master => Basic Settings => Define

Attributes of System Messages

TCode: OMT4

Step 1: On the Display IMG screen, select Define Attributes of System Messages by following the above path.



Step 2: Here you can maintain type of message (warning or error), message number along with the description of message. Click on Save. System messages are now maintained.

Change View "System Messages": Overview				
BC Set: Change Field Values				
Version	Appl.A.	No.	Message text	Cat
00	M3	128	Check the data for the purchasing value key	W
00	M3	132	With price control S, enter a standard price	W
00	M3	148	Price unit not allowed since valuation price would be zero	W

Define Number Ranges – Purchase Requisition

When we create a purchase requisition, every requisition is recognized by a unique number that is known as the purchase requisition number. We can define a number range manually, otherwise the system can automatically assign the same. Follow the steps given below to define a number range for purchase requisition.

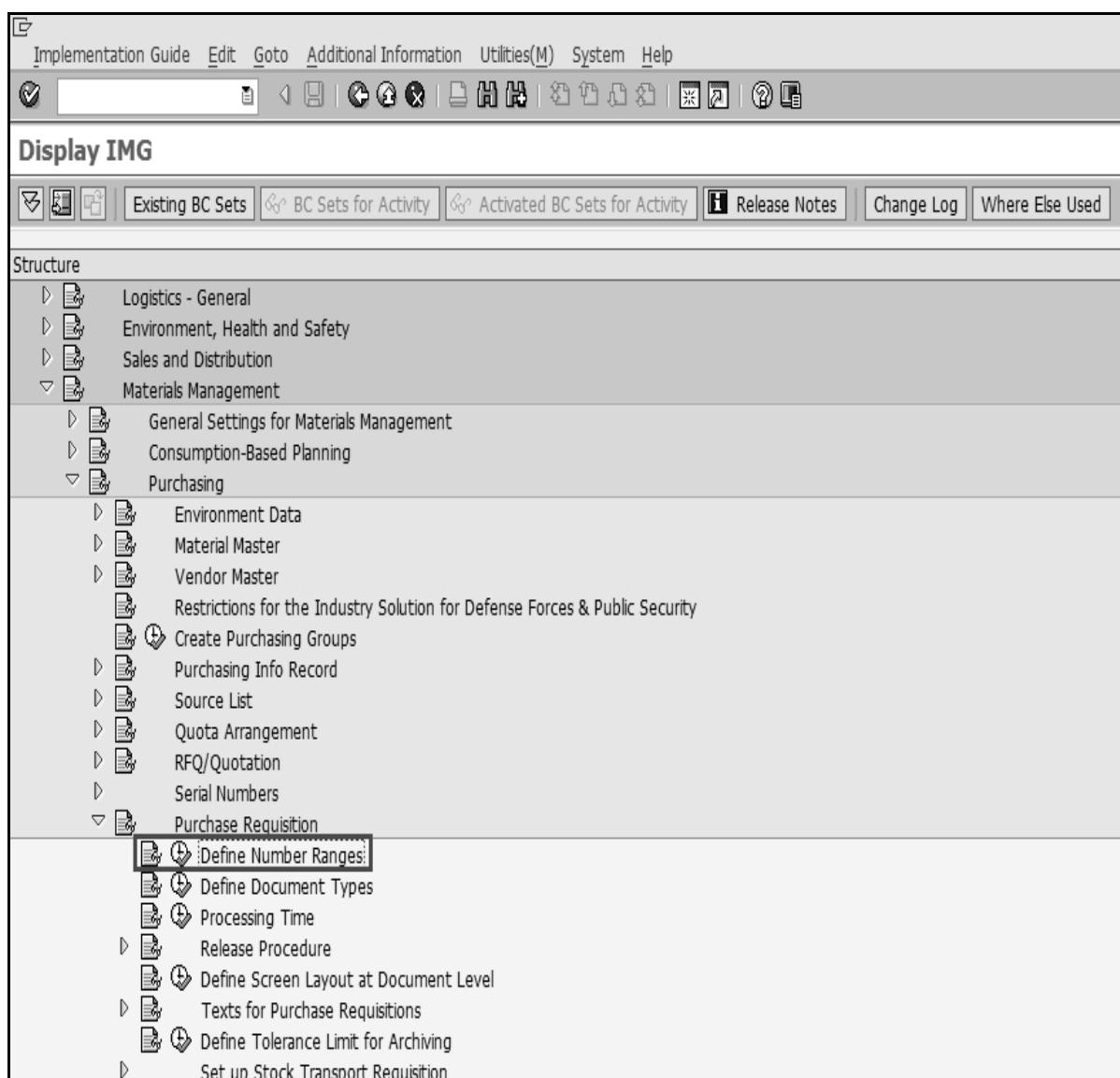
Path to Define Number Ranges:

IMG => Materials Management => Purchasing => Purchase Requisition =>

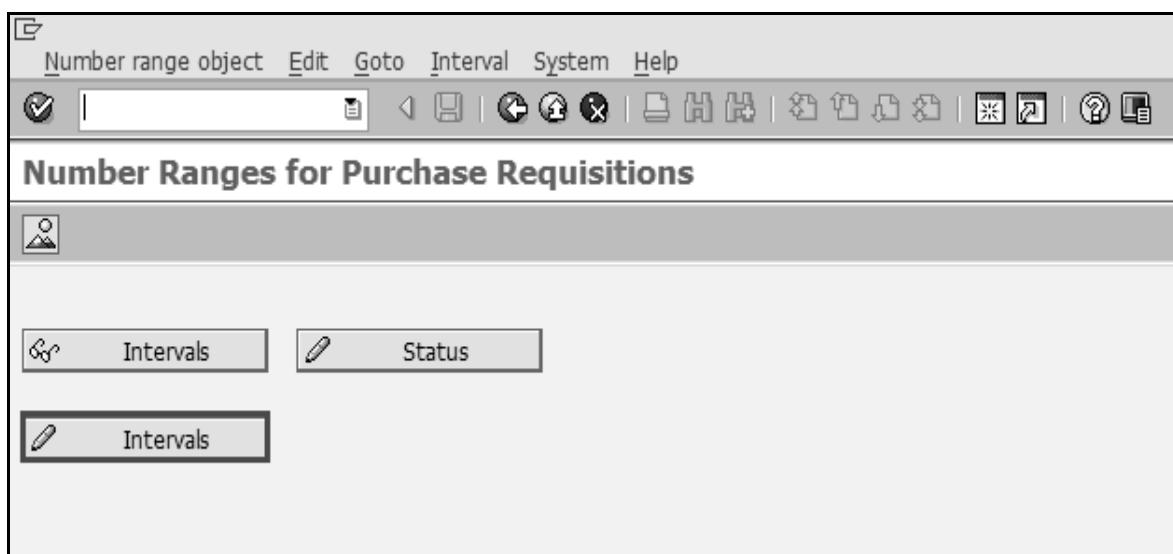
Define Number Ranges

TCode: OMH7

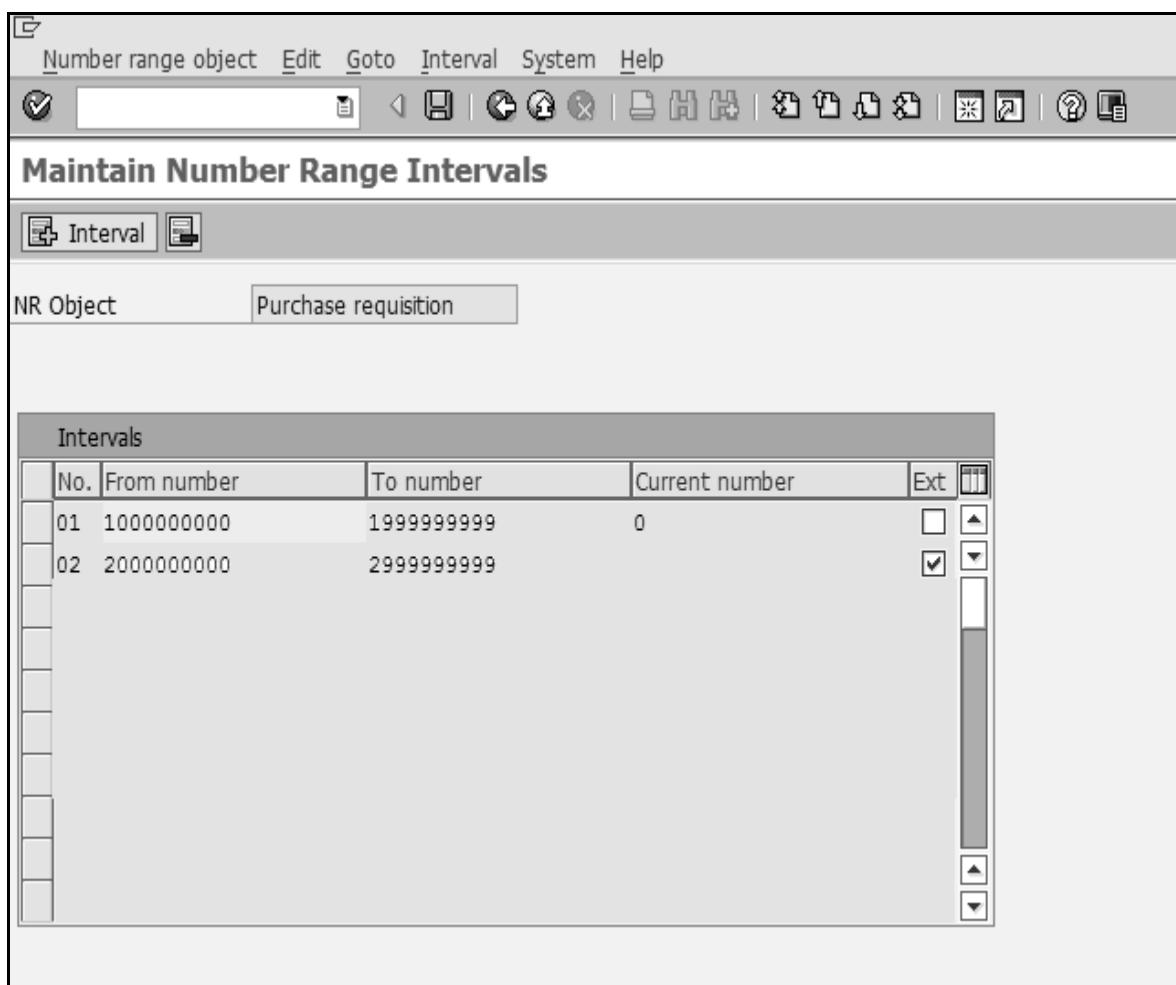
Step 1: On the Display IMG screen, select Define Number Ranges by following the above path.



Step 2: Select edit mode of Intervals tab.



Step 3: Here you can maintain a number range accordingly. Then click on Save. Number range for purchase requisition is now maintained.



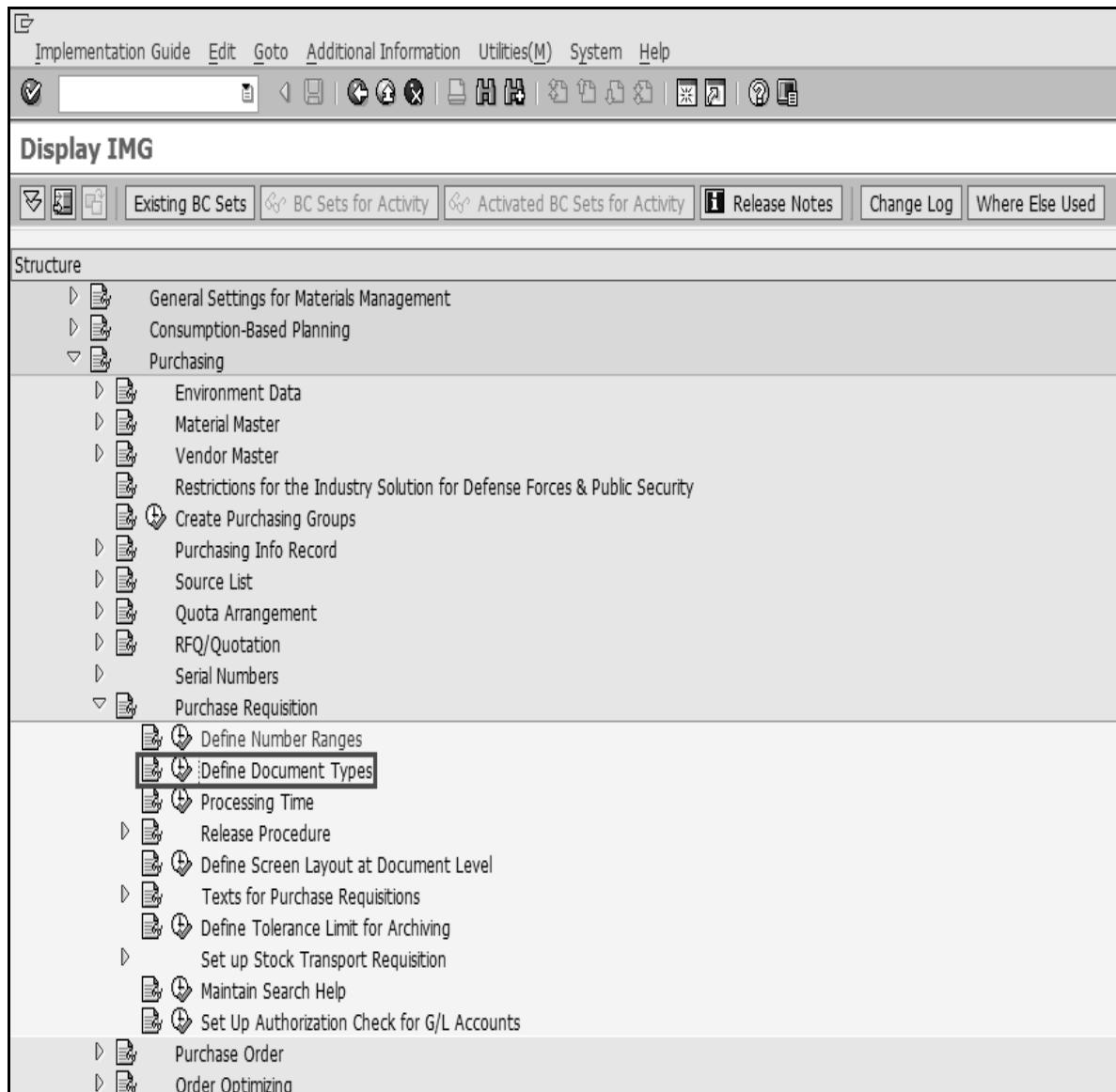
Define Document Types – Purchase Requisition

Different types of documents are created for purchase requisition. Follow the steps given below to maintain document types for purchase requisition.

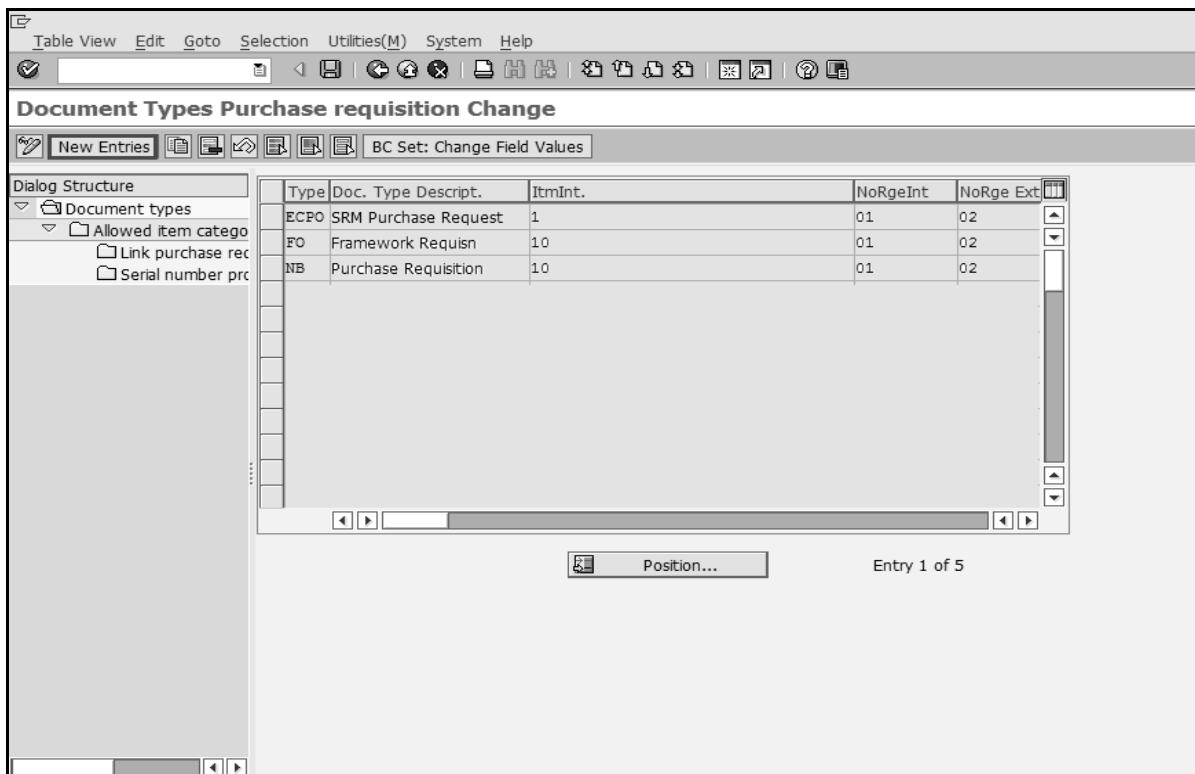
Path to Define Document Types:

IMG => Materials Management => Purchasing => Purchase Requisition => Define Document Types

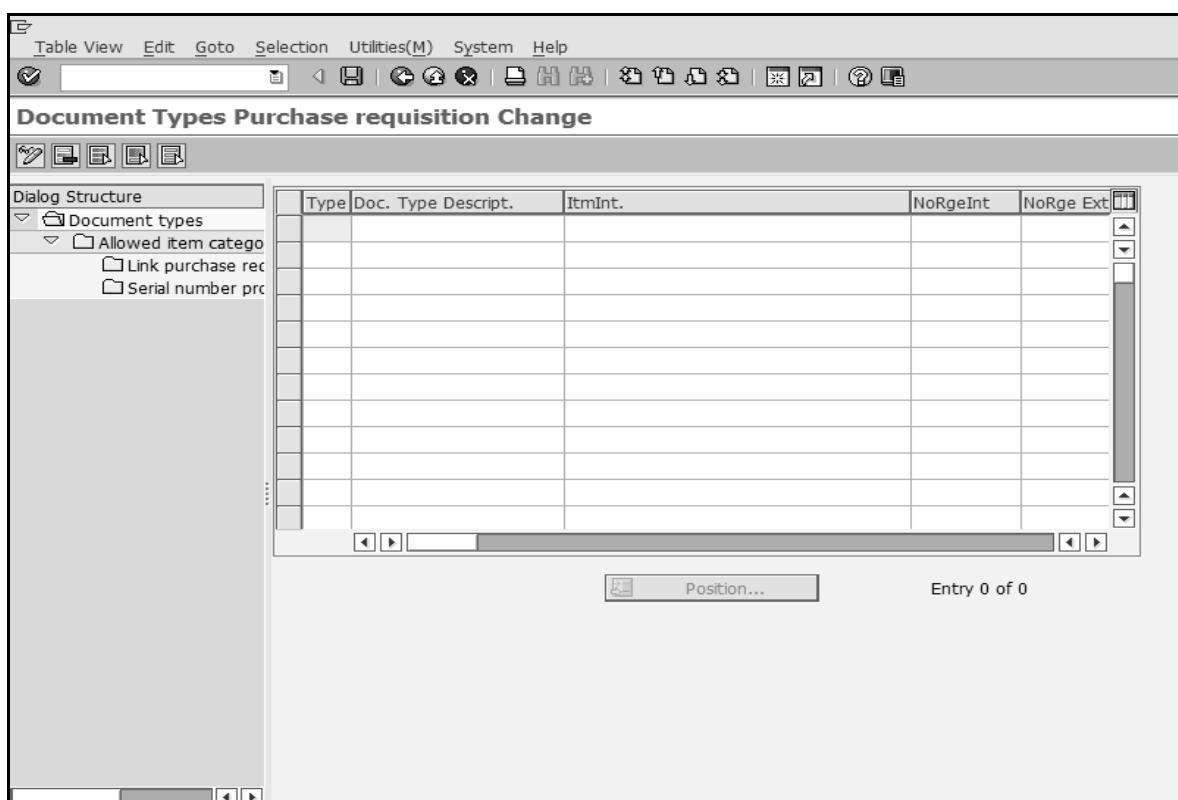
Step 1: On the Display IMG screen, select Define Document Types by following the above path.



Step 2: Click New Entries.



Step 3: Provide details such as the name of the document type with its description. Click on Save. Document types for purchase requisition are now defined.



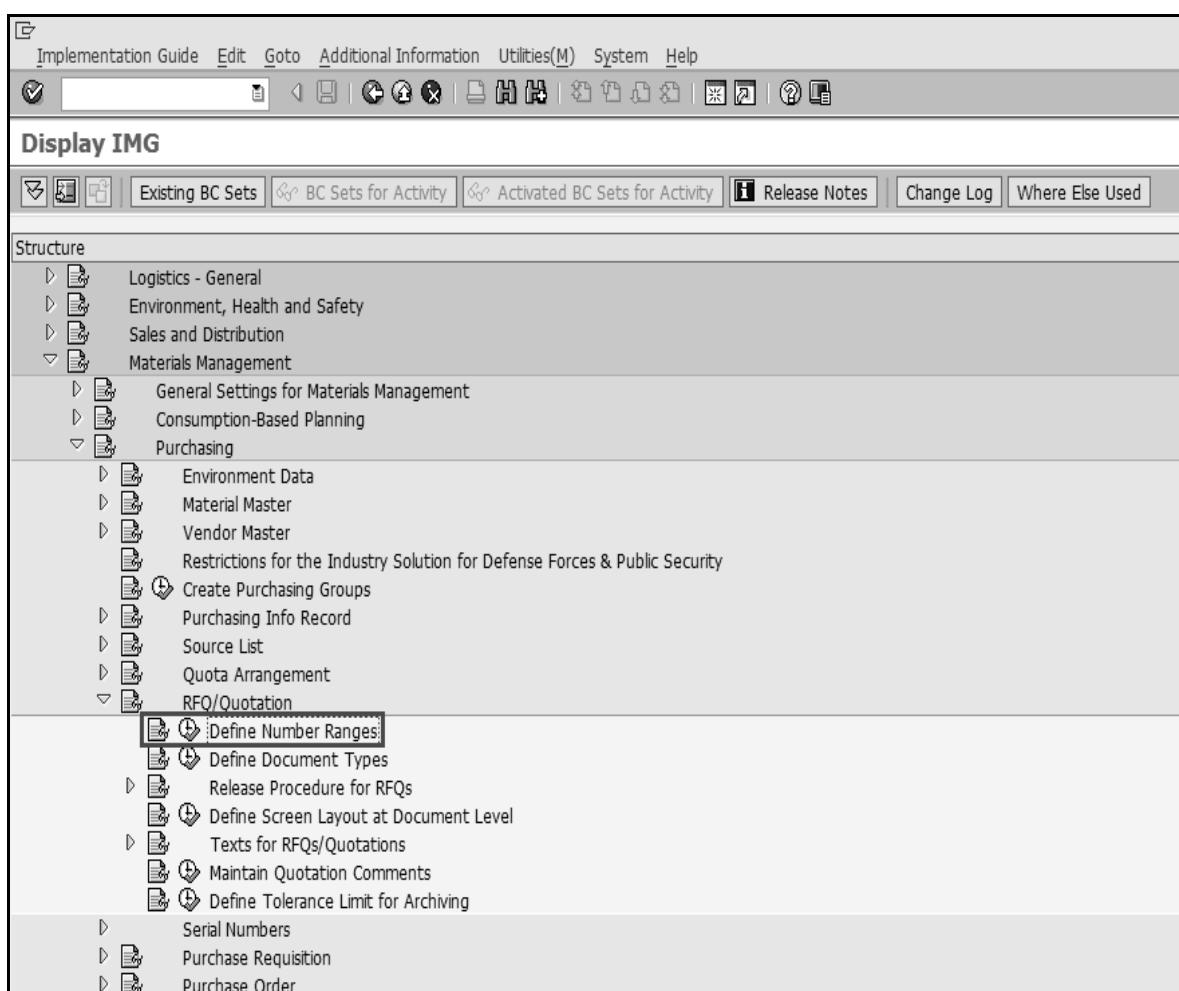
Define Number Ranges – RFQ/Quotation

When we create RFQ/Quotation, every quotation is recognized by a unique number known as quotation number. We can define a number range manually, otherwise the system can automatically assign the same. Follow the steps given below to define a number range for RFQ/Quotation.

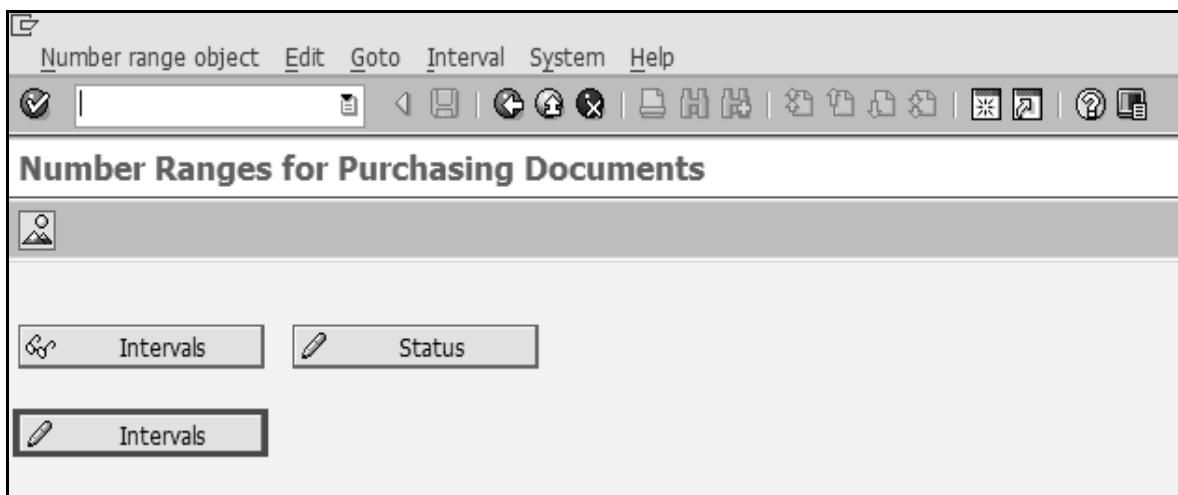
Path to Define Number Ranges:

IMG => Materials Management => Purchasing => RFQ/Quotation => Define Number Ranges
TCode: OMH6

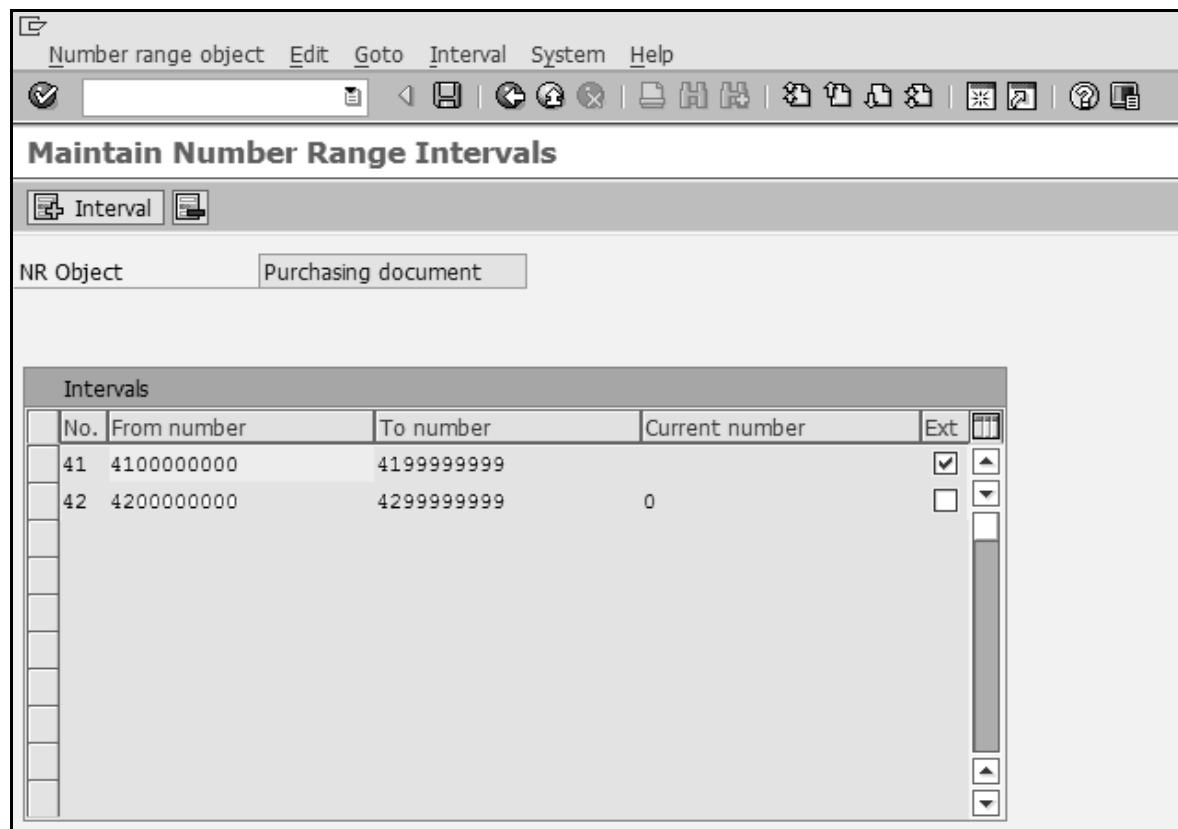
Step 1: On the Display IMG screen, select Define Number Ranges by following the above path.



Step 2: Select edit mode of Intervals tab.



Step 3: Here you can maintain a number range accordingly. Then click on Save. Number range for RFQ/Quotation is now maintained.



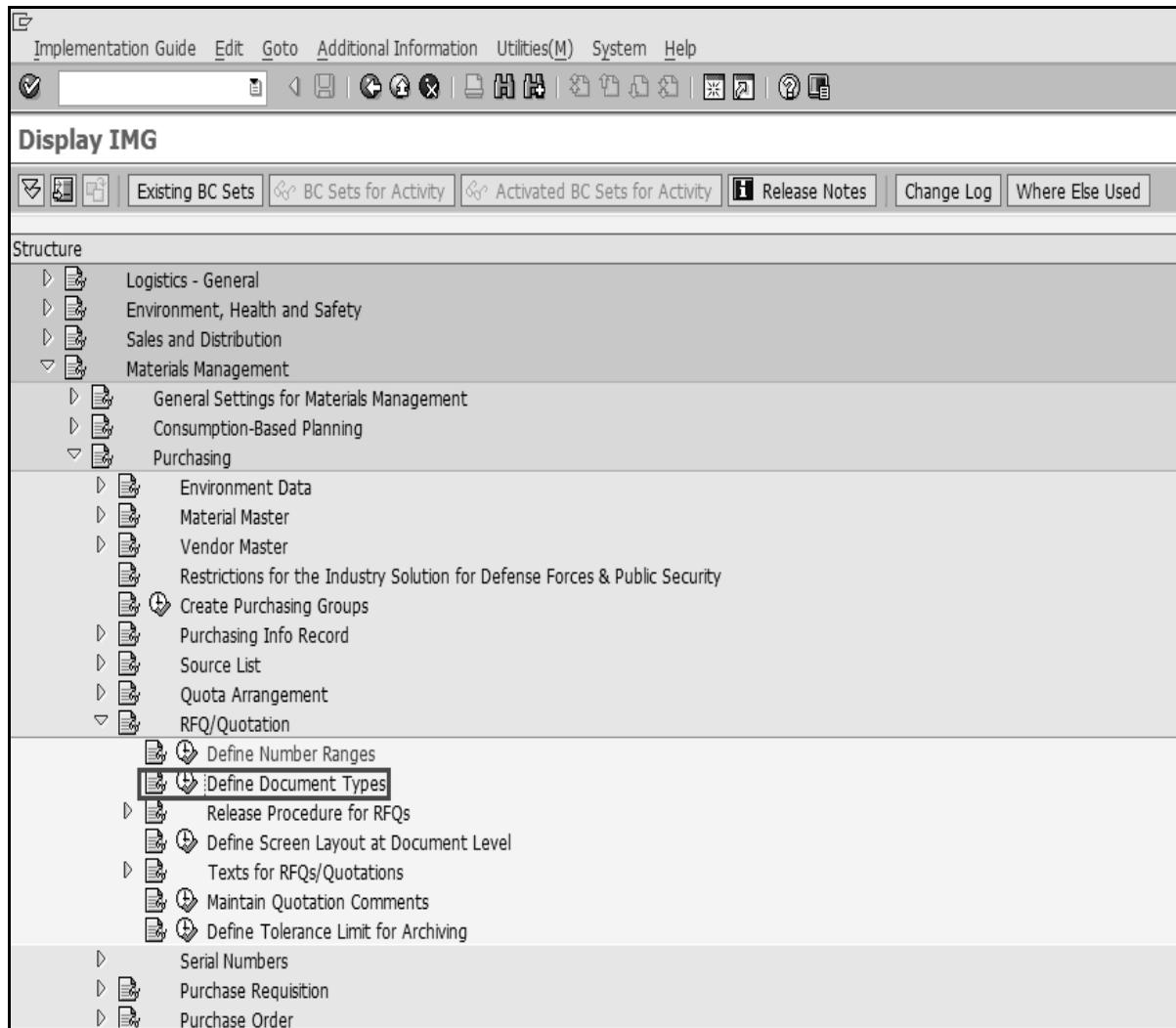
Define Document Types – RFQ/Quotation

Different types of documents are created for RFQ/Quotation. Follow the steps given below to maintain document types for RFQ/Quotation.

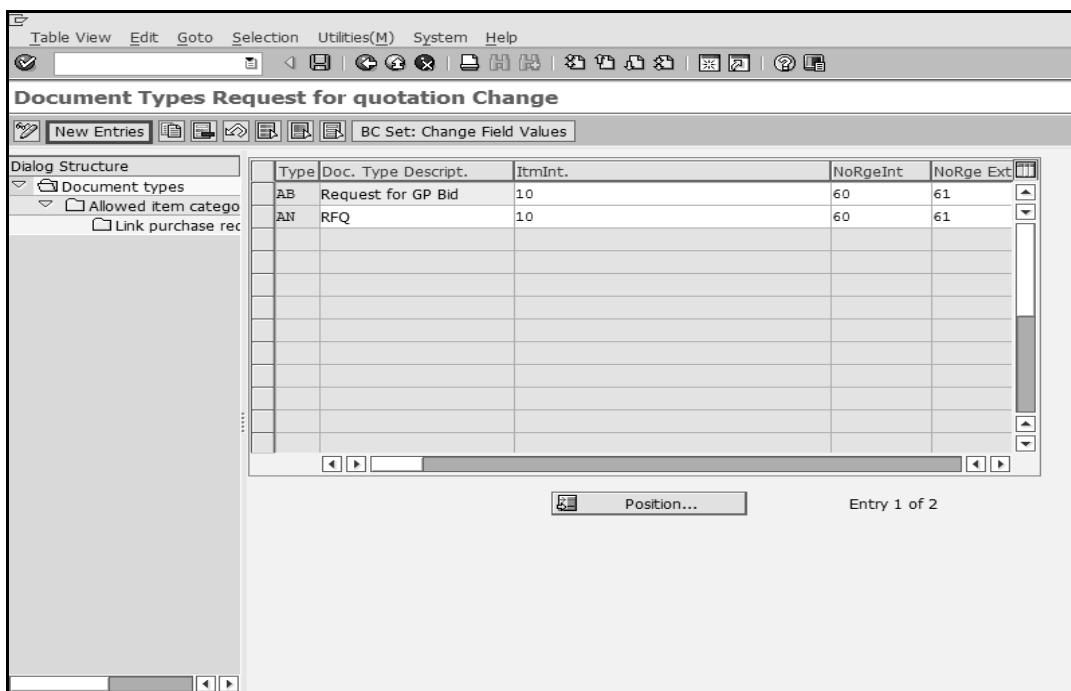
Path to Define Document Types:

IMG => Materials Management => Purchasing => RFQ/Quotation => Define Document Types

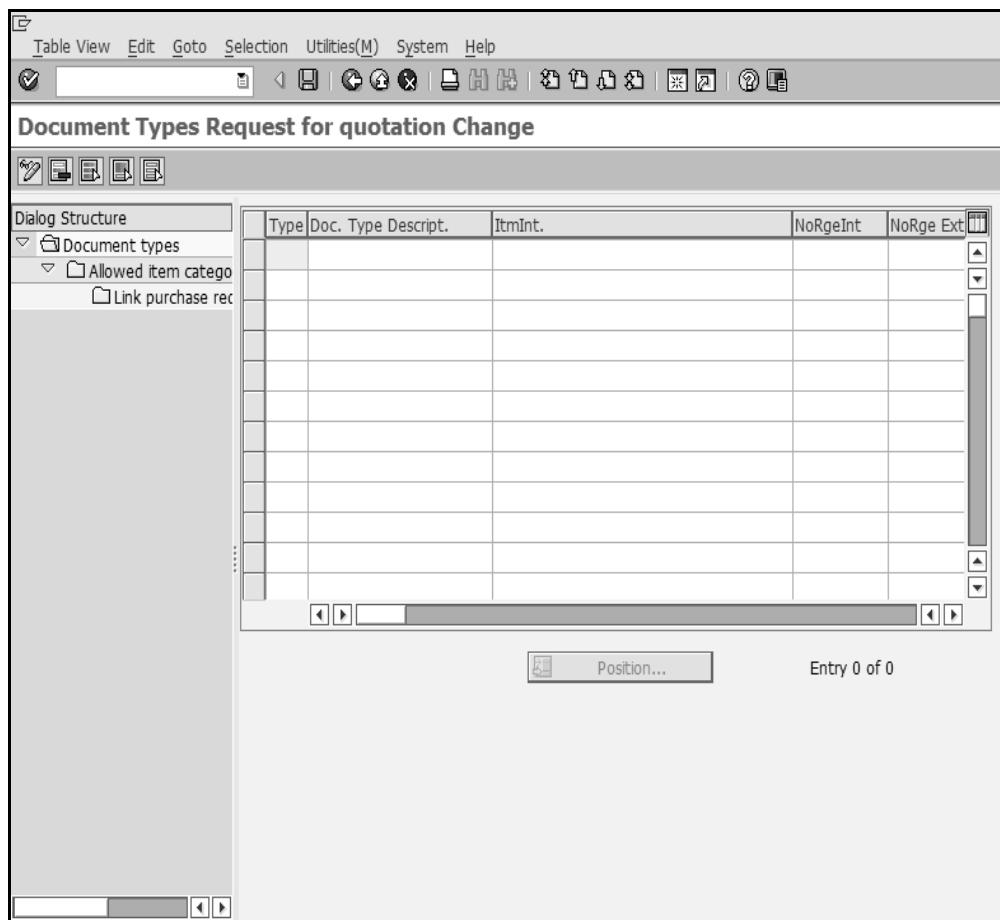
Step 1: On the Display IMG screen, select Define Document Types by following the above path.



Step 2: Click New Entries.



Step 3: Provide details such as document type with its description. Click on Save. Document types for RFQ/Quotation are now defined.



24. TRANSACTION CODES

SAP MM provides some shortcuts to save time and effort. These are known as transaction codes. Transaction codes are the shortcut codes that take us directly to the screen desired. These codes are provided in the command field. Some of the important transaction codes are as follows.

T-Code	Description
OX15	Create Company
OX02	Create Company Code
OX10	Create Plant
OX09	Create Storage Location
OX08	Create Purchasing Organization
OME4	Create Purchasing Group
OX18	Assign Plant to Company Code
OX01	Assign Purchasing Organization to Company Code
OX17	Assign Purchasing Organization to Plant
MM01	Create Material
MM02	Change Material
MM03	Display Material
MB51	Material Document List
MMDE	Delete All Materials

MMNR	Define Material Master Number Ranges
XK01	Create Vendor
XK02	Change Vendor
XK03	Display Vendor
ML33	Create Vendor Conditions
ME11	Maintain Purchasing Info Record
ME01	Maintain Source List
ME51N	Create Purchase Requisition
ME52N	Change Purchase Requisition
ME53N	Display Purchase Requisition
ME41	Create RFQ/Quotation
ME42	Change RFQ/Quotation
ME43	Display RFQ/Quotation
ME31L	Create Scheduling Agreement
ME32L	Change Scheduling Agreement
ME33L	Display Scheduling Agreement
MEQ1	Create Quota Arrangement
MEQ2	Change Quota Arrangement
MEQ3	Display Quota Arrangement

ME21N	Create Purchase Order
ME22N	Change Purchase Order
ME23N	Display Purchase Order
ME29N	Release Purchase Order
ME59N	Automatic generation of Purchase Order
MIGO	Post Goods Movement
MB1A	Goods Withdrawal
MB1B	Transfer Posting
MB1C	Post Other Goods Receipts
MB01	Post Goods Receipt for Purchase Order
OMJJ	Customizing: Define New Movement Types
MIRO	Enter Incoming Invoice
MIRA	Fast Invoice Entry
MR8M	Cancel Invoice Document
MRBR	Release Blocked Invoices
OMR6	Tolerance limits: Invoice Verification
MIR5	Display List of Invoice Documents
MIR6	Invoice Overview
MIR7	Park Invoice

MRIS	Settle Invoicing Plan
AC02	Service Master
ML81N	Create Service Entry Sheet
MRRL	Evaluated Receipt Settlement
MMB1	Create Semi Finished Product
MMF1	Create Finished Product
MMG1	Create Returnable Packaging
MMH1	Create Trading Goods
MMI1	Create Operating Supplies
MMK1	Create Configurable Material
MMN1	Create Non-Stock Material
MMBE	Stock Overview
MB52	List of Warehouse Stocks on Hand
MB21	Create Reservation
MBST	Cancel Material Document
MB5T	Stock in Transit

24. INTERVIEW QUESTIONS

Dear readers, these **SAP MM Interview Questions** have been designed especially to get you acquainted with the nature of questions you may encounter during your interview for the subject of **SAP MM**. As per our experience, good interviewers hardly plan to ask any particular question during an interview. Normally questions start with some basic concepts on the topics and later, they continue based on what you answer.

Q: What do you know about SAP?

A: SAP is an enterprise resource planning software that was produced by a German corporation. It was basically designed to manage resources, information, and activities that are required to complete business processes such as procurement and managing orders, billing of orders, and management of human resources.

Q: What are the organizational levels in SAP R/3?

A: The top level of the organizational structure is the client, followed by company code, which represents a unit with its own accounting unit. The next level down is plant where procurement activities take place. A plant produces goods and makes goods available for the company. The purchasing organization is legally responsible for the procurement transactions. This group is further subdivided into purchasing groups.

Q: What are the important steps in the procurement life cycle?

A: Procurement starts with gathering requirements, then creating a purchase requisition, followed by creating a purchase order that has to be sent to the vendor. After this, goods will be supplied by the vendor and goods receipt is done along with invoice verification. Then the vendor is paid for the supplied goods and services.

Q: What do you mean by special stocks?

A: Special stocks are stocks that are managed differently, as these stocks do not belong to the company and these are being kept at some particular location.

Q: How stock is being transferred from one plant to another plant?

A: Stock within plants is transferred with the help of stock transport order. One plant orders the goods internally from another plant (receiving plant/issuing plant) with the help of stock transport order.

Q: What are some of the movement types for stock transport order?

A: One step transfers of materials can be posted using movement type 301. Other movement types are 303, 351, 641, or 643 in the stock transport order.

Q: What is the difference between purchase requisition and purchase order?

A: Purchase requisition is an internal document; it is a request that is made to the purchasing organization to procure a certain list of material. Purchase order is a formal document that is given to the vendor containing the list of items to be procured from the vendor.

Q: What is an RFQ and how is it different from quotation?

A: RFQ is a request for quotation and it is a form of invitation that is sent to the vendors to submit quotations indicating their pricing and terms and conditions, while quotation is a reply by a vendor in response to the request for quotation.

Q: What are the transactions that cause change in stock?

A: Goods receipt and goods issue will cause change in stock, as goods receipt will increase the warehouse stock and goods issue will decrease the warehouse stock.

Q: What do you mean by reservation?

A: Sometimes, a stock has to be blocked in advance so that it can be made available at a particular point of time. This is known as reservation. Reservation ensures availability of stock and it can be used when required. Reserved quantity can be viewed by tcode MMBE.

Q: Can you manually create a purchase requisition with reference to documents such as purchase order or scheduling agreement?

A: No, purchase requisition cannot be created with either of these, as it is an internal document which is controlled by the purchase organization.

Q: Is material and vendor data available at all organizational levels?

A: Yes, material and vendor data is available at all levels, as it is normally created for company and it is valid for the levels below company.

Q: What do you mean by release procedure?

A: Release procedure means approval of documents like purchase orders and purchase requisition manually by the criteria defined in the configuration.

Q: If you have multiple line items in a purchase order, can you release that purchase order line by line?

A: No, release is done only at the header level in a combined way for all the line items in case of purchase order.

Q: What do you mean by material type?

A: Materials with some common attributes are grouped together and they are assigned to a material type. This will differentiate materials and allow an

organization to manage different materials in a systematic manner in accordance to the company's requirement.

Q: What is a source list?

A: Source list includes a list of possible sources of supply for a material over a given framework of time. A particular material can be ordered from different vendors in different time intervals. This information can be maintained in a source list.

Q: What do you mean by consignment stock?

A: In consignment, material is available at the company's premises, however it still belongs to the vendor (seller)/Owner of the material. If we utilize the material from consignment stocks, then we have to pay to the vendor.

Q: What is invoice verification?

A: Once goods are procured from the vendor and placed in company's premises through goods receipt, we need to pay to the vendor for the acquired goods and services. The amount to be paid along with the details of material is provided by the vendor in the form of an invoice. Before paying to the vendor, we need to verify the invoice. This process of verifying the invoice and paying to the vendor is known as invoice verification.

Q: What do you mean by outline agreement?

A: Outline agreement is a long-term purchasing agreement with the vendor containing the terms and conditions regarding the material that is supplied by the vendor. Outline agreement is valid up to a certain period of time and covers a certain predefined quantity or value.

Q: What is the difference between contract and scheduling agreement?

A: Contract is a long-term outline agreement between the vendor and the ordering party over a predefined material or services over a certain framework of time. Scheduling agreement is a long-term outline agreement between the vendor and the ordering party over a predefined material or service, which are procured on predetermined dates over a framework of time.

Q: What is the difference between planned and unplanned services?

A: In planned services, at the time of procurement, specifications like quantity and price are known. It means the nature and scope of service is clear before the procurement, whereas in unplanned services, specifications like quantity and price are not known at the time of procurement. It means the nature and scope of service is not clear before the procurement. These services can be extended as per requirement.

Q: What is quota arrangement?

A: A particular material can be procured from different vendors depending upon the requirement. So, the total requirement of a material is distributed among

different vendors, i.e. quota is assigned to each source of supply. This is known as quota arrangement.

Q: What do you understand by posting period?

A: Documents such as purchase order, request for quotation, goods receipt are essential in a business. These documents need security, i.e., if any of these documents is posted incorrectly, then the business can get affected at various levels. In order to secure these documents, we have a concept of posting period. Posting period allows us to post and make changes in the documents only in a specific time period.

What is Next?

Further, you can go through the examples which you have practiced with the subject, and make sure you are able to speak confidently on them. If you are a fresher, then the interviewer does not expect you to answer very complex questions, rather you have to keep your fundamentals strong.

Secondly, it really doesn't matter much if you could not answer a few questions, but it matters how you answer the ones that you do. Be confident during your interview. We at tutorialspoint wish you all the very best.