SAP R/3 works on real time data that is 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 it is valid for all applications. It remains constant over the time but we need to update it on 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 following two types:

- Material Master Data

- Vendor Master Data

Material Master Data

The key points about material master 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, or produce, or store or sell.

- Since there are different departments in an enterprise and each department works on some specific material. So they will enter different information regarding their material. So each user department has its own view of material master record. So, the data screens that are used to create material master can be divided into two categories:
  Main Data: This will include basic data $baseunitofmeasure$, $weight$, purchasing data $overtoleranceandundertolerance$, accounting data $standardprice$, $movingprice$.
  Additional Data: This will include additional information like short description about material, currency etc.

Material master has the four characteristics which will be discussing one by one in below context.

Material Types

Materials with some common attributes are grouped together and they are assigned to a material type. This will differentiate materials and allow organization to manage different materials in systematic manner in accordance to company's requirement. For example: Raw Material, Finished Products are some of the material types. Material type can be created by following the below steps.

Path to create material type:
IMG >= Logistics General >= Material Master >= Basic Settings >= Material Types >= Define Attributes of Material Types
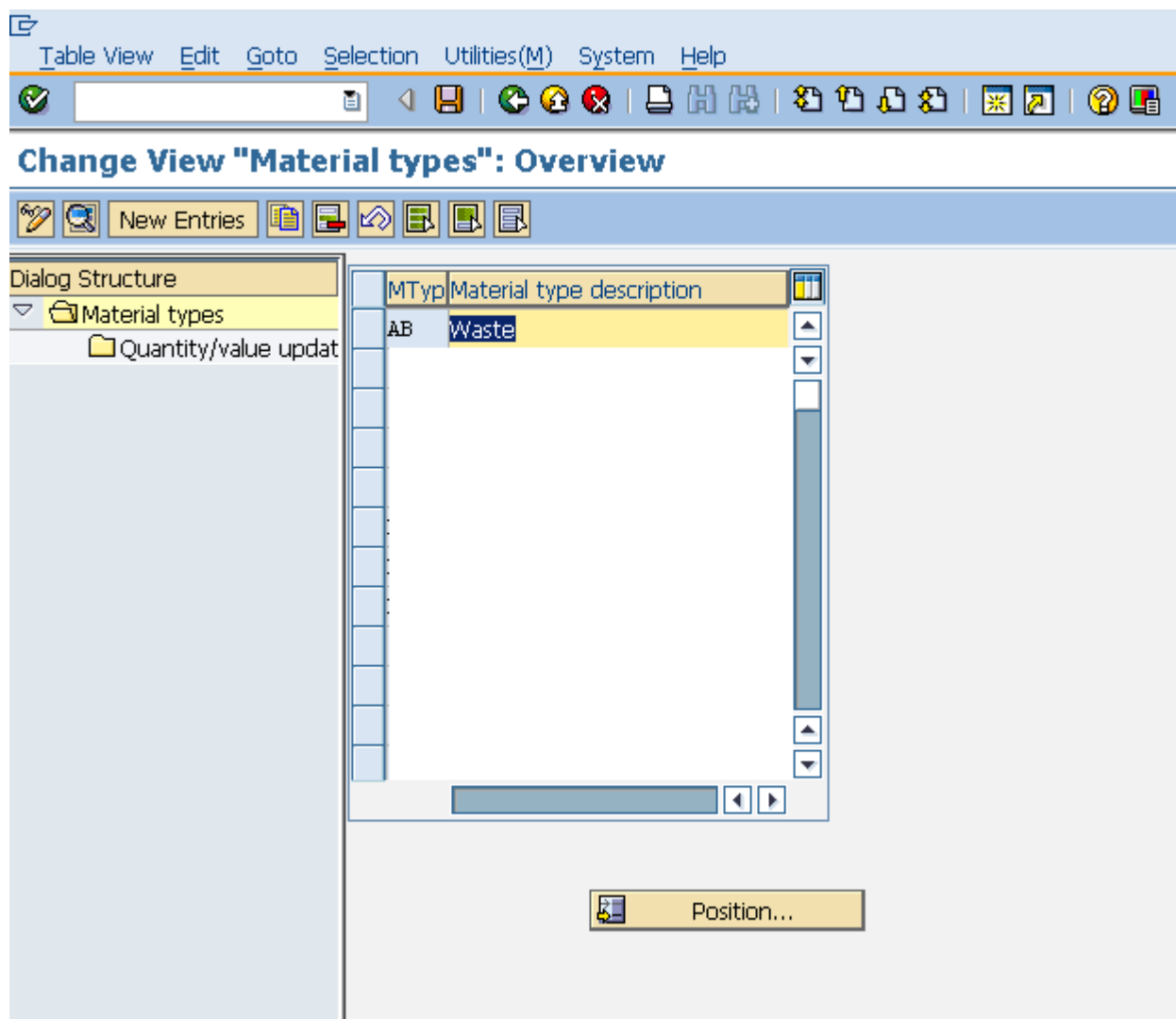TCode: OMS2

On display IMG screen select Define Attributes of Material Types execute icon by following the above path.
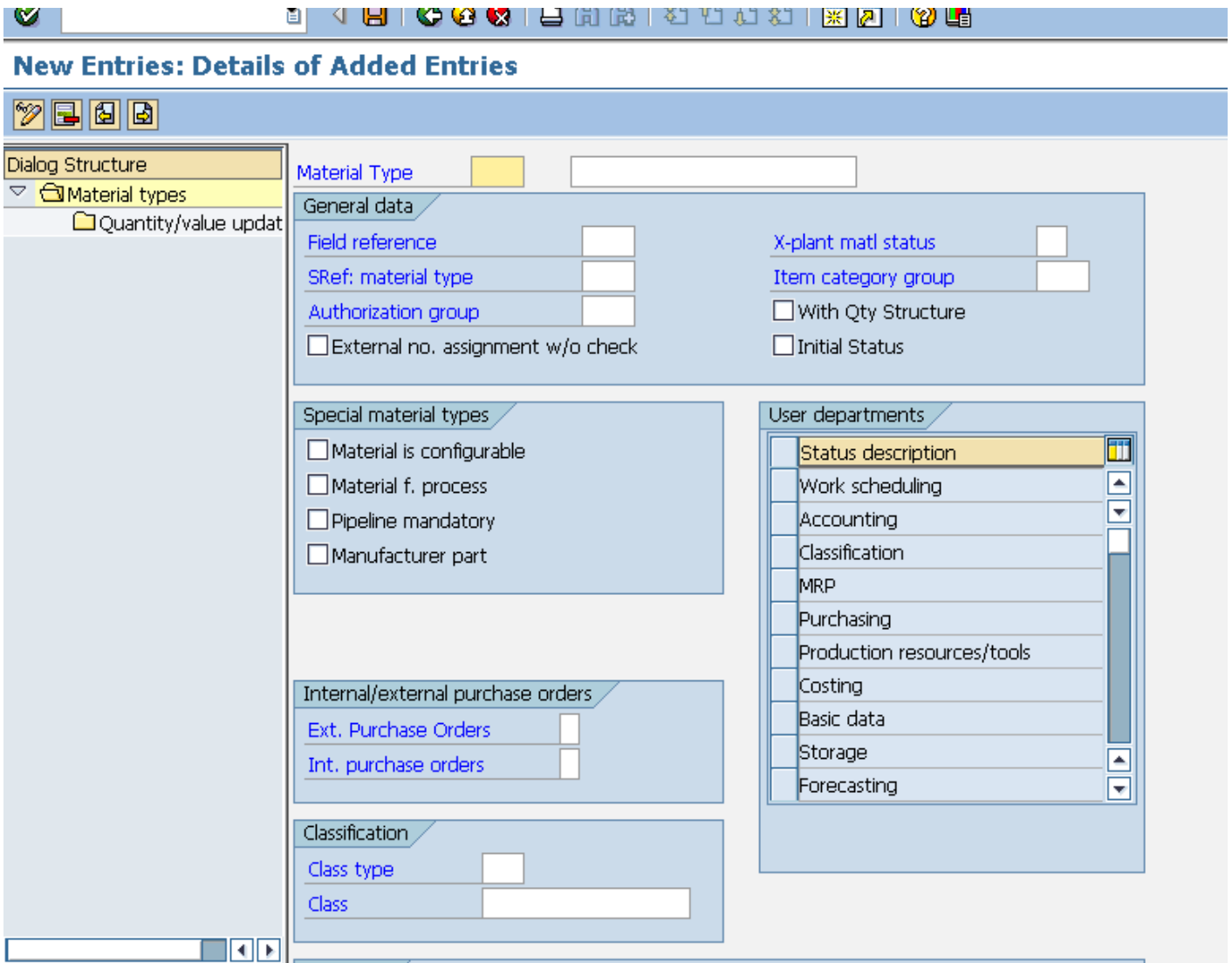
Select New Entries icon.

Fill in the required information like name of material type and description. Click on save. A new material type will be created.
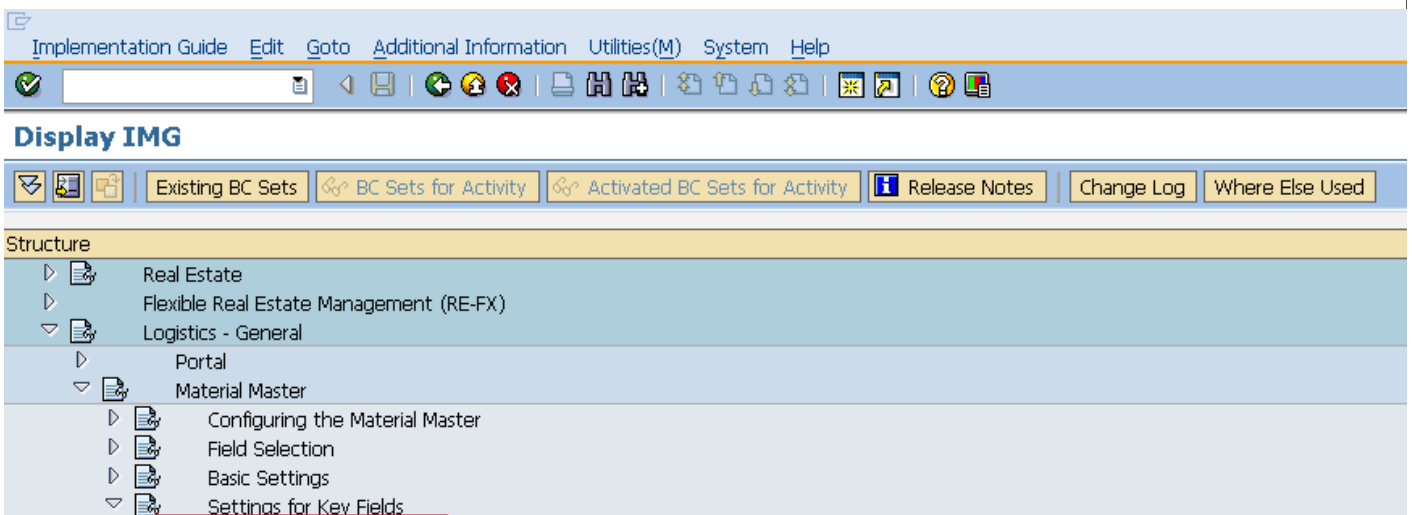
Material Groups

Material group is a wider range of material type. Materials with some common attributes are taken together and they are assigned to material group. For Example: Suppose we have some materials which need packaging, so there material type can be electrical or food products but we can group these material types and put them in packaged material group. Material Group can be created by following below steps:

Path to Create Material Group:
IMG => Logistic General => Material Master => Settings for Key Fields => Define Material Groups
TCode: OMSF

On display IMG screen select Define Material Groups execute icon by following the above path.
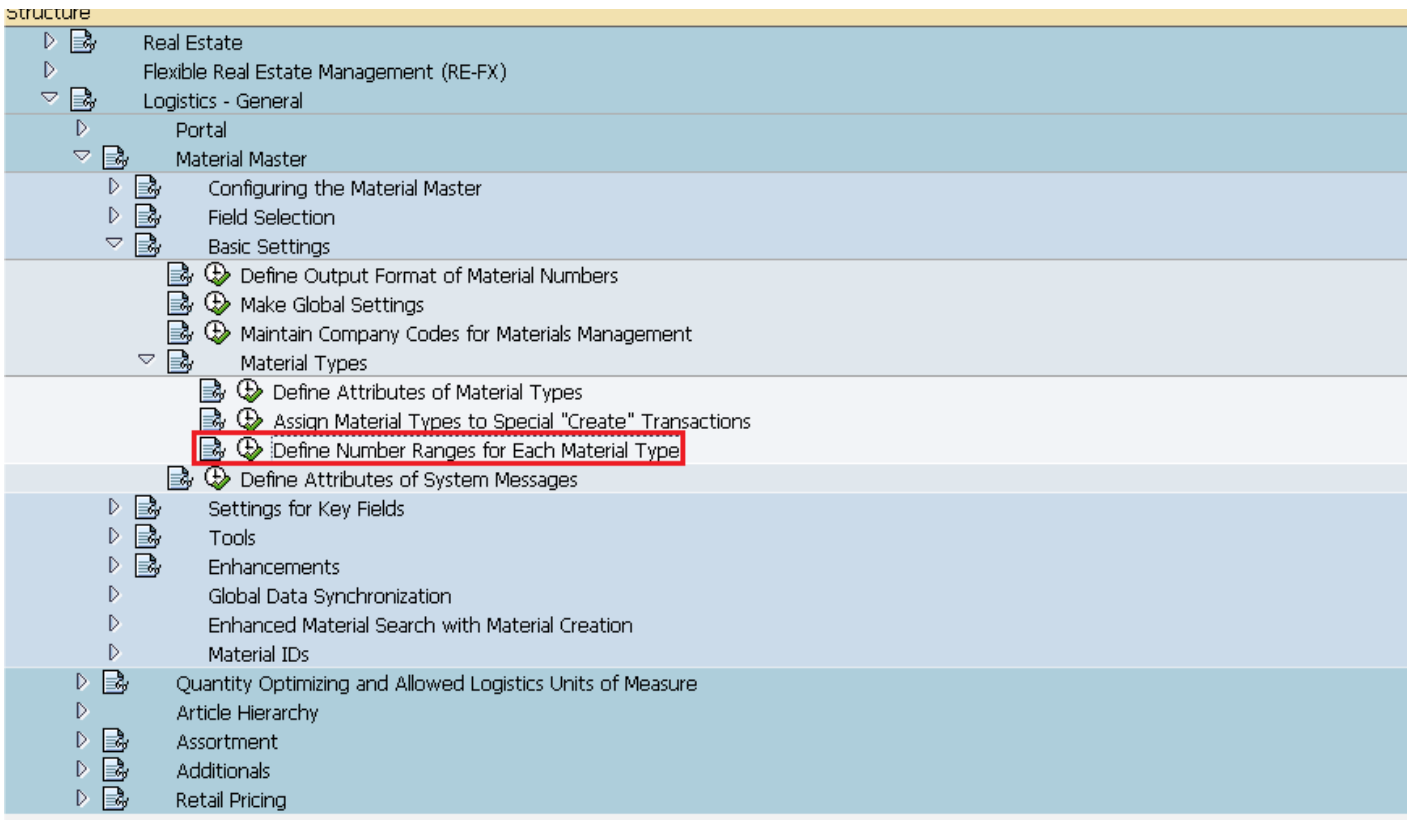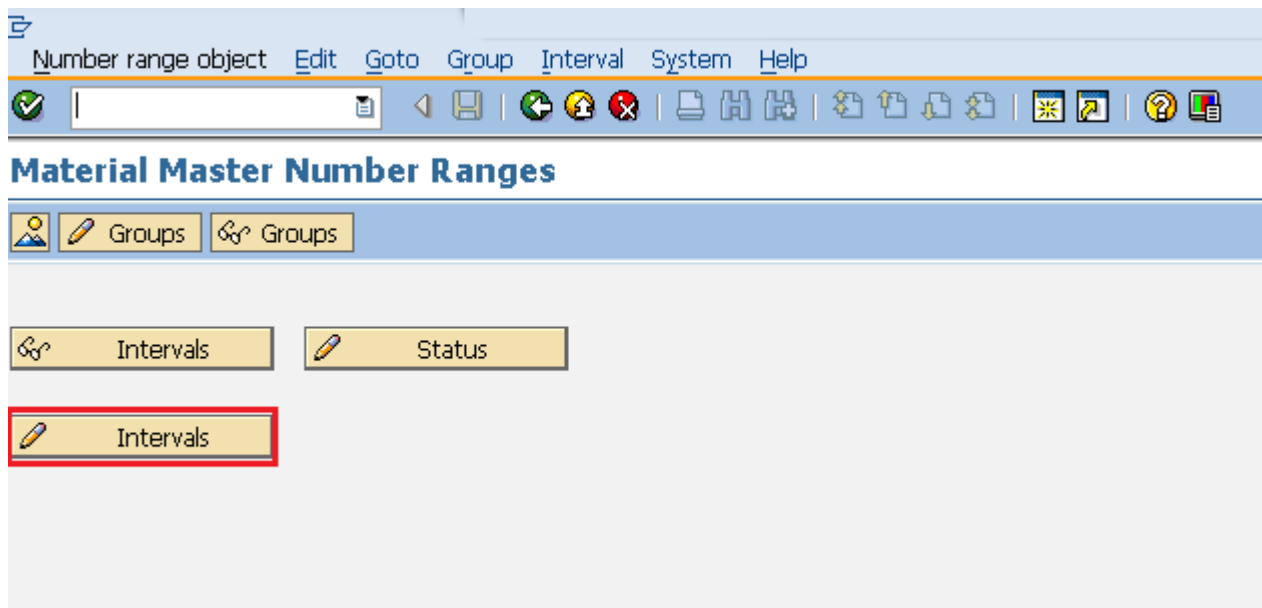
- 📄 ⊕ Define Material Groups
- 📄 ⊕ Maintain External Material Groups
- 📄 ⊕ Define Divisions
- 📄 ⊕ Define Material Statuses
- 📄 ⊕ Extend ABC Indicator
- 📄 ⊕ Define Laboratories and Offices
- 📄 ⊕ Define Basic Materials
- 📄 ⊕ Define Storage Conditions
- 📄 ⊕ Define Temperature Conditions
- 📄 ⊕ Define Container Requirements
- 📄 ⊕ Define Units of Measure Groups
  - ▷ 📄 International Article Numbers (EANs)
  - ▷ 📄 Data Relevant to Sales and Distribution
- ▷ 📄 Tools
- ▷ 📄 Enhancements
- ▷   Global Data Synchronization
- ▷   Enhanced Material Search with Material Creation
- ▷   Material IDs

Select New Entries Icon.

Enter the name of material group along with its description. Click on Save. A new material group will be created.

Number Range

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

- External number assignment - While creating material you have to enter your own number *containingalphabetsordigits*, and that should be unique.

- Internal number assignment - While creating material you need not enter any number, system will automatically generate a unique number to that material.

Define Number Range:

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

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

On display IMG screen select Define Number Range for Each material Type execute icon by following the above path.

Select Intervals Icon.

We can define number range here and EXT

external tab, if it is checked then the external number assignment can be done in that material. Click on save. Number Range is now defined for the material.
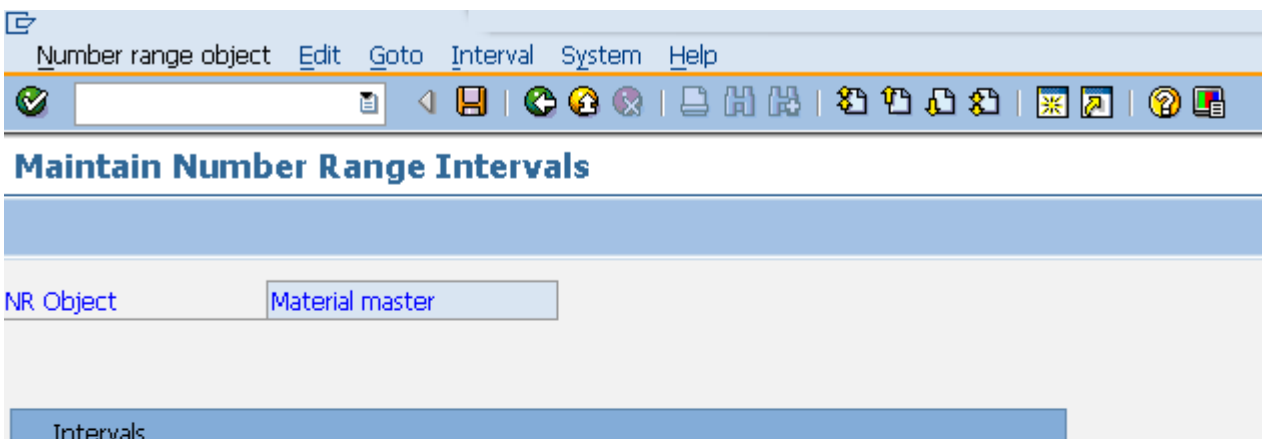
From number	To number	Current number	Ext	
00000000000000001	000000000099999999	10	☐	
			☑	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☑	

Assignment of Number Range:

After defining we need to assign it to material group. Number range can be assigned by following the below steps.

In the same screen as shown above select Groups tab.

Number range object   Edit   Goto   Group   Interval   System   Help

Material Master Number Ranges

Groups   Groups

Intervals   Status

Intervals

For a particular material group we can assign number range here. Click on save. Number range is now assigned to material group.

Number range object   Edit   Goto   Group   Interval   System   Help

Maintain Number Range Intervals

| NR Object | Material master |
| Group............ | Multi-Purpose Material |

Intervals

From number	To number	Current number	Ext	
000000000110000000	000000000199999999	110013629	☐	
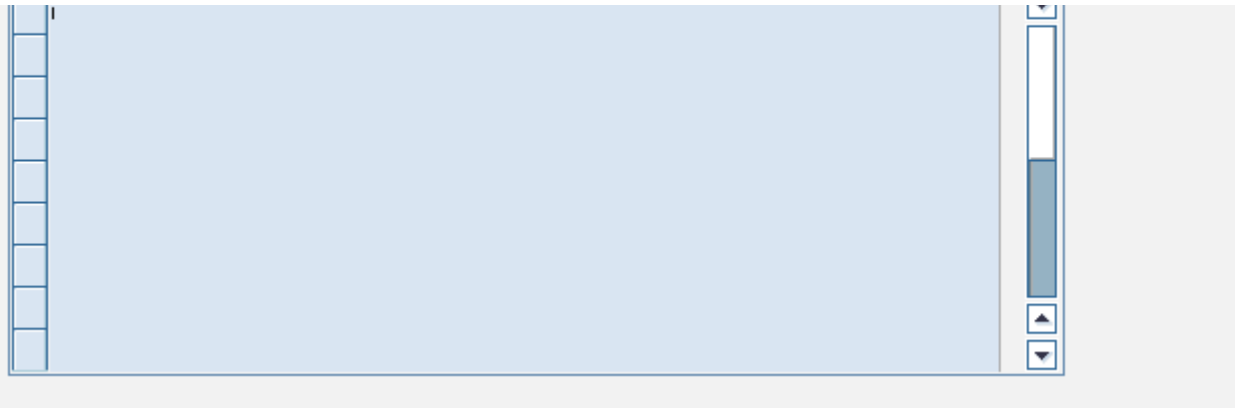
Material Master Creation

Material master contains all materials that a company procures produces or sells. Material Master is a central data that is available at all the levels. Material can be created by following the below steps:

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.

On SAP Menu screen select create icon by following the above path.
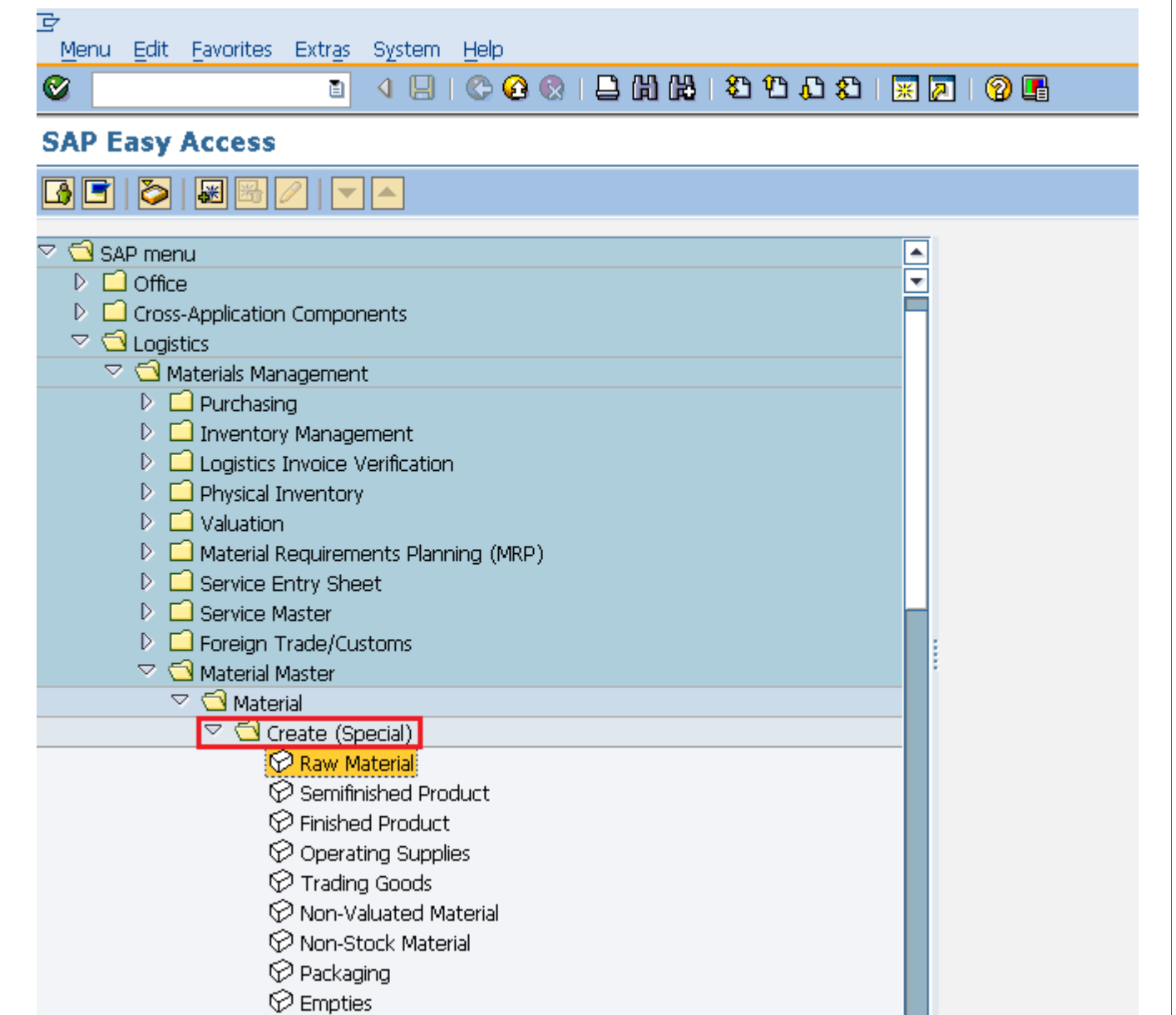
Fill in all required details like material number $if external number assignment$, material type, industry sector.

Select the views you want to maintain for your material.

Enter name of plant and storage location.
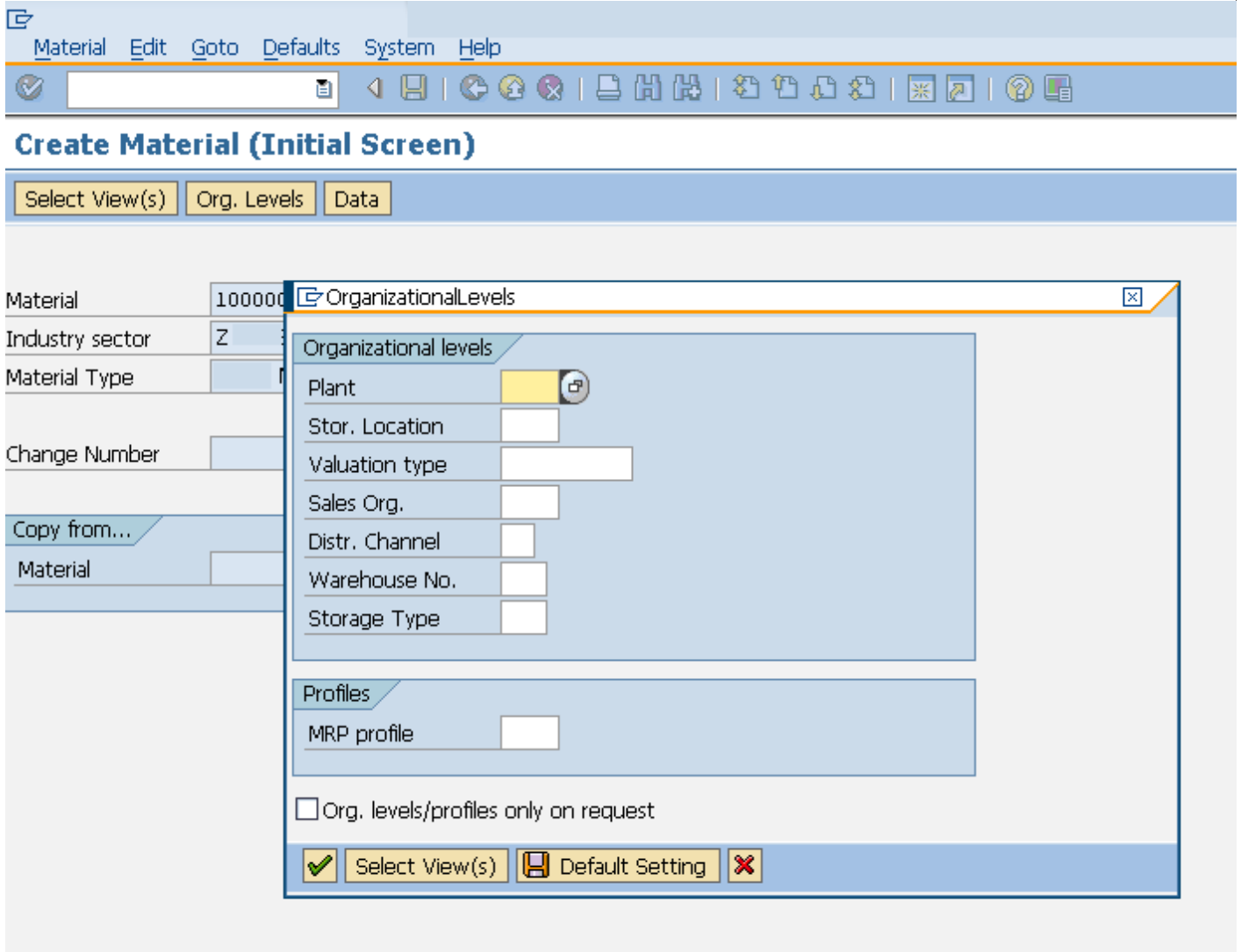
Enter the required information in your material views like unit of measure, currency, standard price, moving price etc. Click on save. A new material will be created.

Vendor Master Data

The key points about vendor master are as follows:

- This is the enterprise main source of vendor specific data. This data will include information on vendors from which a company can procure or it can sell.

- Vendor Master Record will contain information like vendor's name, address.

- Data in vendor master record is divided into three categories:
General Data:General data is maintained at client level and it is valid for all organizational levels.
Accounting Data:Accounting data is maintained at company level and it is valid for all plants belonging to that company.
Purchasing Data:Purchasing data is maintained at purchasing organization level.

Vendor master has the three characteristics which will be discussing one by one in below context.

Vendor Account Group

Vendors are categorized according to requirements and 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. Vendor Account group can be created by following the below steps.

Path to create Vendor Account Group:
IMG => Logistic General => Business Partner => Vendors => Control => Define Account group and field selection*vendor*
TCode: OBD3

On display IMG screen select Define Account group and field selection *vendor* execute icon by following the above path.

Select New Entries icon.

Fill in all necessary details like name of account group, general data, and field status. Click on save. A new Vendor Account Group will be created.

Number Range

When we create vendor master record every vendor is recognized by a number, that number will be unique and known as vendor number. As discussed in material master, in similar way we have external as well as internal number assignment for vendor master.

Define Number Range:

Number range can be defined by following the below steps:

Path to create Number Range:
IMG => Logistic General => Business Partner => Vendors => Control => Define Number Range for Vendor master record
TCode: XDN1

On display IMG screen select Define Number Range for Vendor master record execute icon by following the above path.

Select change Interval icon. It will create number range for customer account.

Select the Insert Interval Icon.

We can define number range here and EXT
externaltab, ifitischeckedthenexternalnumberassignmentcanbedoneinthatvendor. Click on save. A new Number
Range will be created.
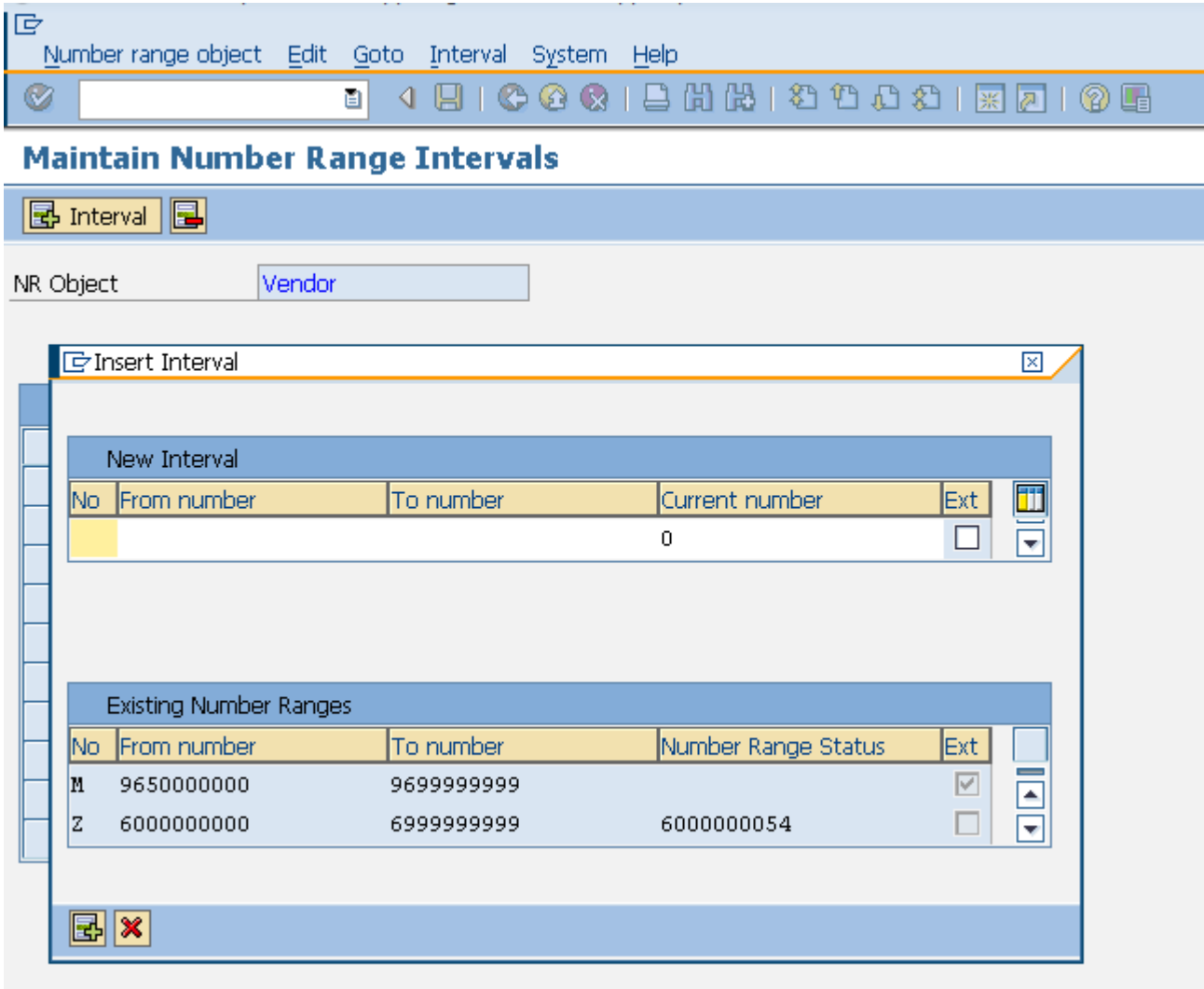
Assignment of Number Range

After defining we need to assign it to vendor group. Number range can be assigned by following
the below steps.

On the same screen as shown above select Number Range tab.
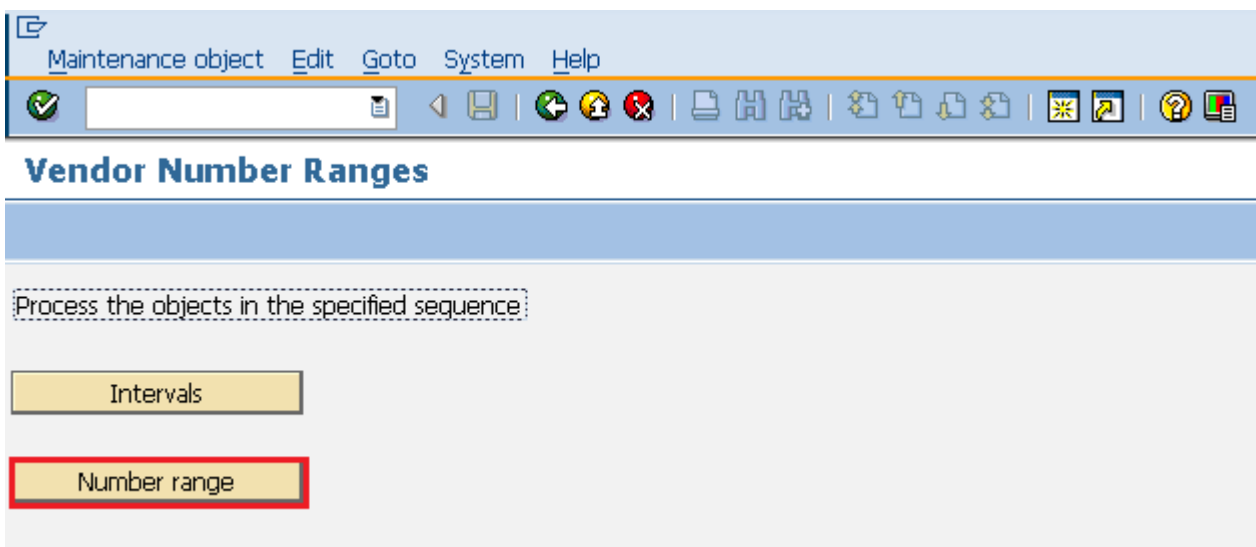
For a particular vendor group assign number range here. Click on save. Number range is now
assigned to vendor group.
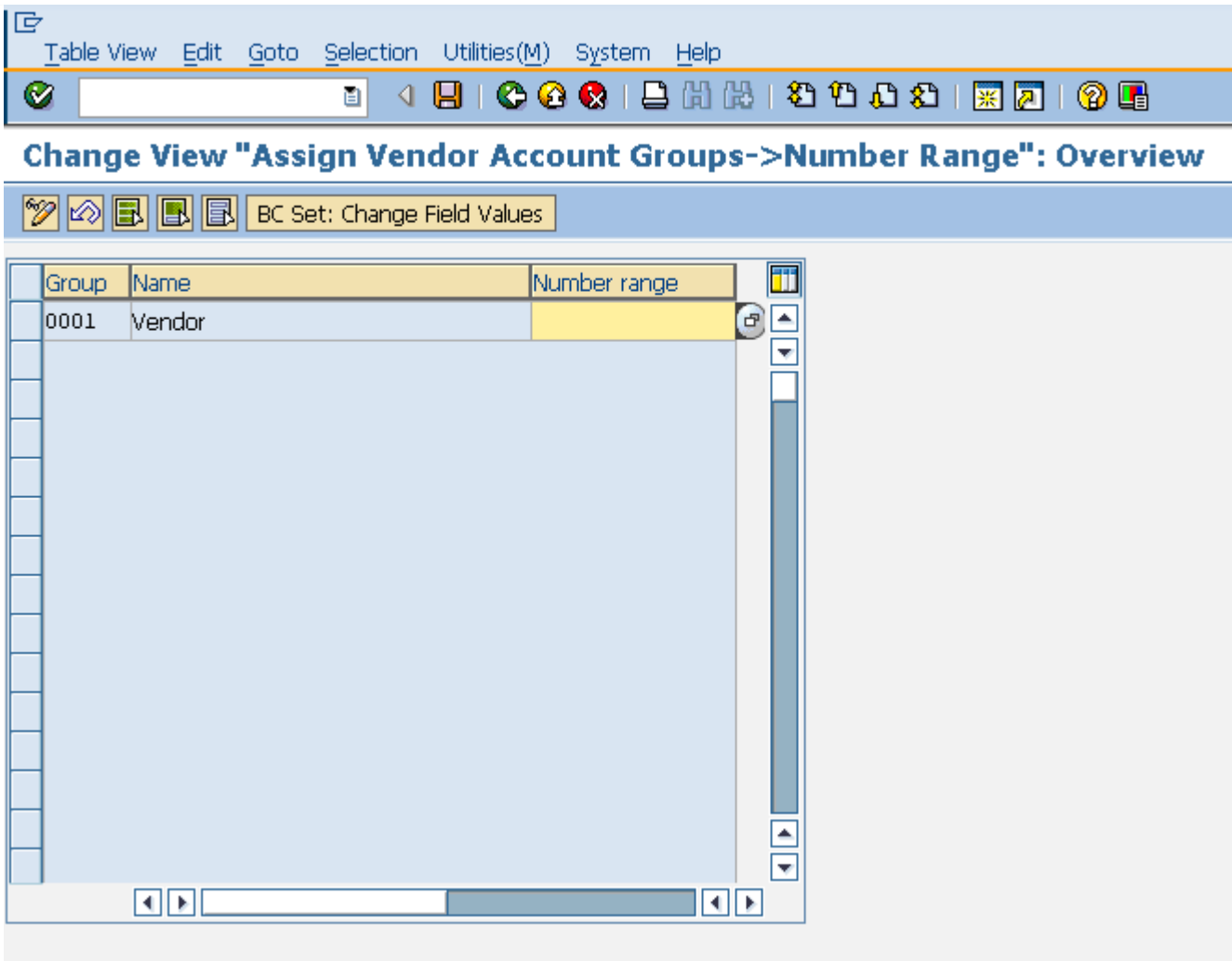
Creation of Vendor Master

Vendor Mater contains list of vendors from which a company can procure or it can sell. Vendor Master can be created by following the below steps:-

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

On SAP Menu screen select create for central vendor data execute icon by following the above path.
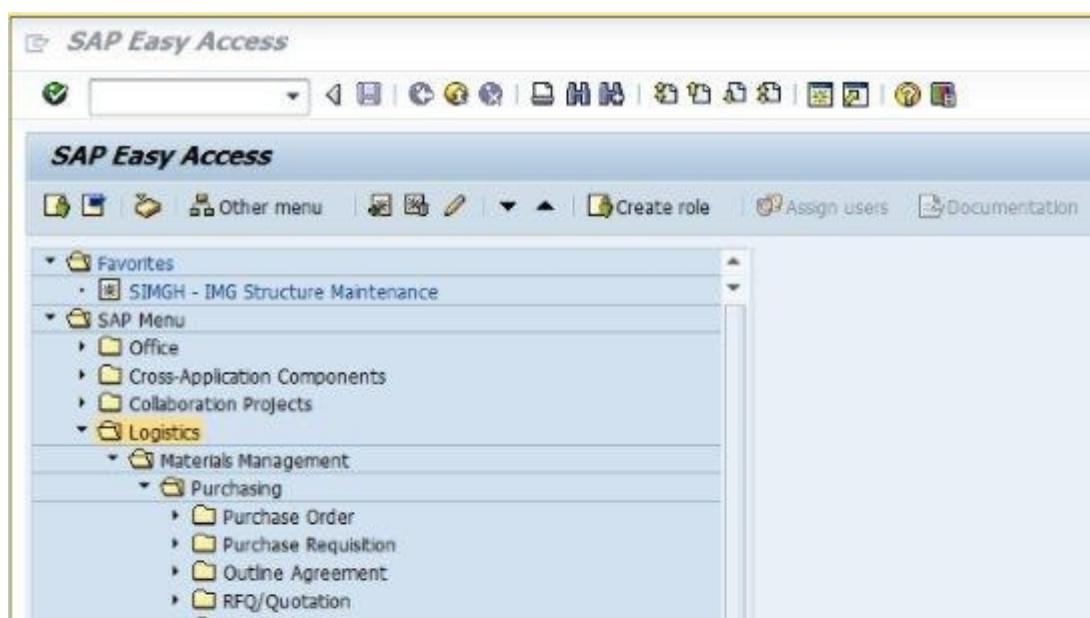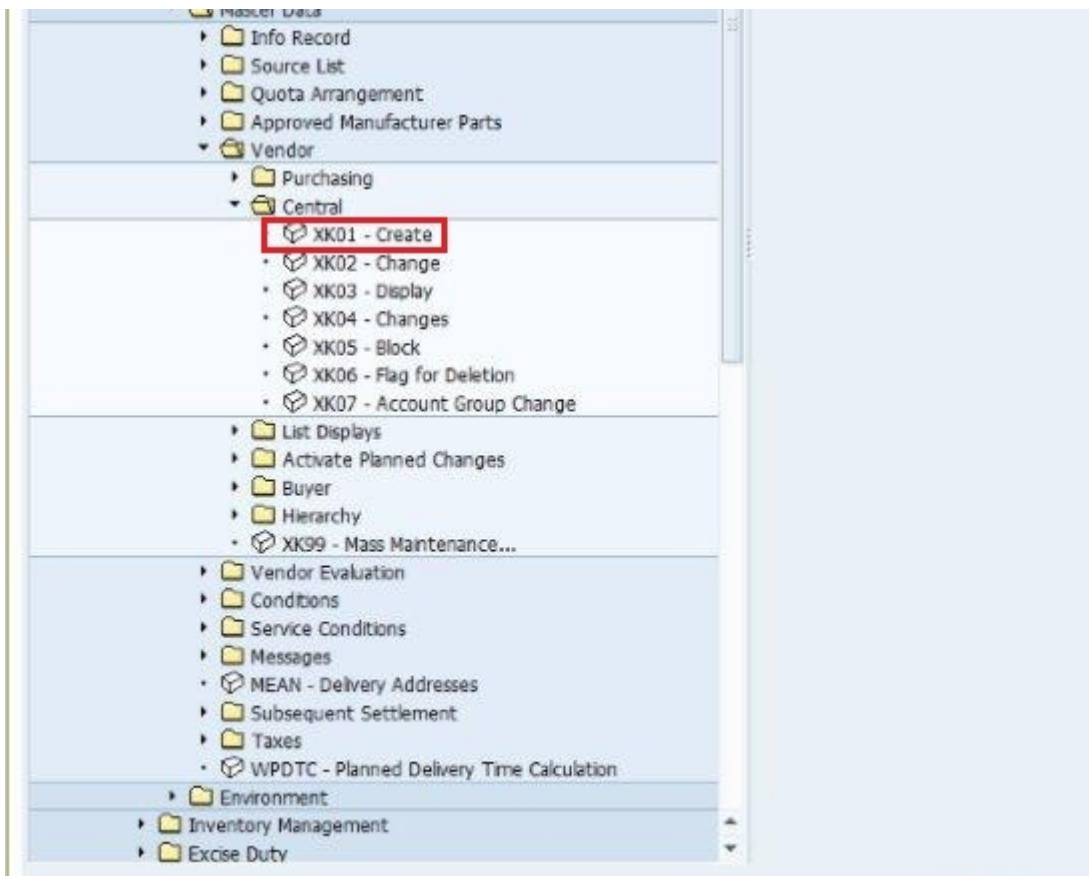
Fill in all required details like company code, purchasing org, vendor no. *If external number assignment*.
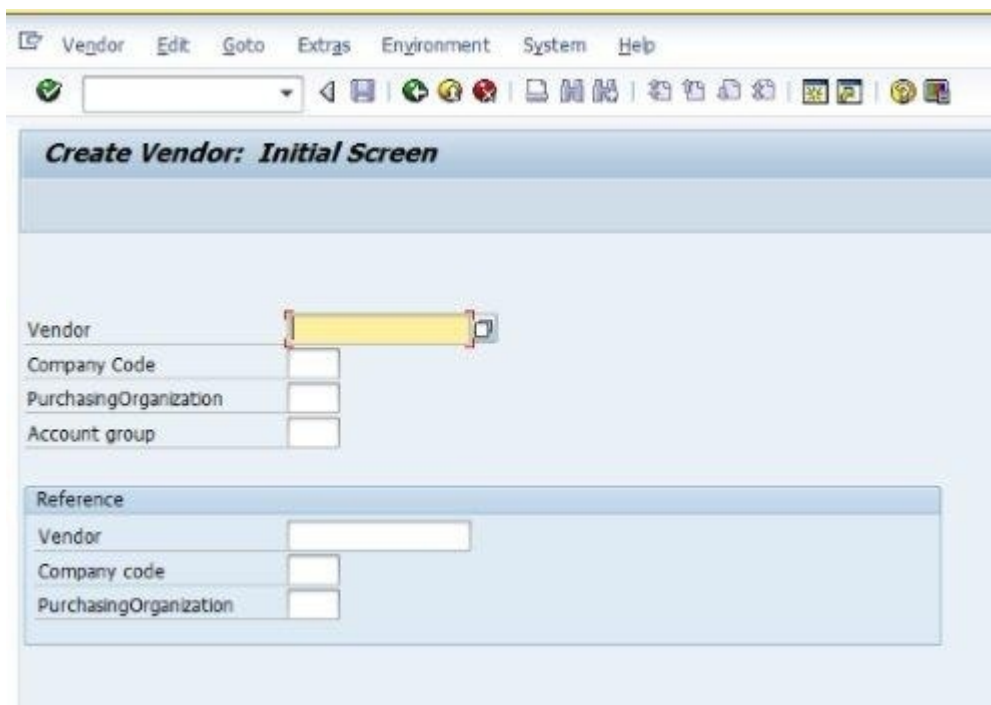
Fill in all details of vendor's address like street name, postal code, country.
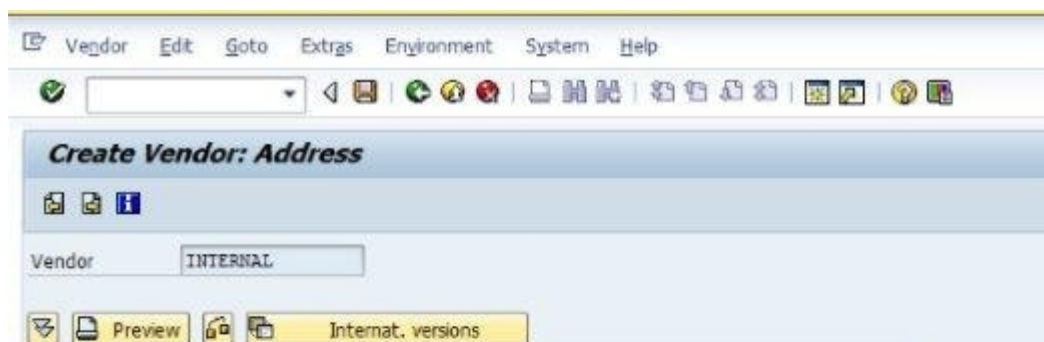
Fill in the necessary bank details of vendor.

Fill in the necessary accounting information of the vendor.

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