

SAP MM MODULE

Complete Beginner's Learning Guide

Materials Management | Procurement | Inventory | Career Growth

Module	SAP MM (Materials Management)
Level	Beginner to Intermediate
Version	SAP ECC 6.0 / SAP S/4HANA
Topics Covered	10 Chapters

Prepared for SAP Learners & Career Aspirants

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Chapter 1: Introduction to SAP & SAP MM

What is SAP?

SAP (Systems, Applications & Products in Data Processing) is the world's leading Enterprise Resource Planning (ERP) software used by large and mid-size organizations to manage business operations and customer relations. It integrates all business functions — Finance, HR, Sales, Procurement, Production, and more — into one unified system.

What is SAP MM?

SAP MM (Materials Management) is a core module of SAP ERP that handles all procurement and inventory functions of an organization. It covers the entire supply chain from purchase requisition to goods receipt and invoice payment.

Key Functions of SAP MM:

- Procurement of materials and services
- Vendor master data management
- Purchase Order (PO) processing
- Goods receipt and inventory management
- Invoice verification and payment
- Material valuation and account determination

Integration with Other SAP Modules

SAP Module	Integration Point
SAP FI (Finance)	Invoice posting, GR/IR clearing, payment processing
SAP SD (Sales)	Stock availability, delivery, billing
SAP PP (Production)	Material requirements planning, BOM
SAP WM (Warehouse)	Goods movements, storage location management
SAP QM (Quality)	Quality inspection at goods receipt

Chapter 2: SAP MM Organizational Structure

Understanding the organizational structure is the foundation of SAP MM. Every transaction happens within specific organizational levels.

Client: The highest level. Represents the entire corporate group. All data is stored at this level.

Company Code: Represents an independent legal entity. Financial statements are generated per company code.

Plant: A place where production, procurement, and storage happens. Assigned to a company code.

Storage Location: A physical or logical area within a plant where materials are stored.

Purchase Organization: Responsible for negotiating purchasing conditions with vendors.

Purchase Group: A buyer or group of buyers responsible for specific purchasing activities.

Warehouse Number: Used in Warehouse Management (WM) to manage storage bins.

Tip: In SAP MM, most transactions require you to enter Plant, Storage Location, and Purchase Organization. Always know your company's organizational structure before starting.

Chapter 3: Master Data in SAP MM

Master data is the core data that remains relatively stable over time. In SAP MM, three types of master data are most important:

1. Material Master (T-Code: MM01, MM02, MM03)

The Material Master is the central repository for all information about a material. It contains data organized in 'views':

- Basic Data 1 & 2 – Description, unit of measure, weight
- Purchasing – Purchasing group, order unit, tolerances
- MRP 1-4 – Planning type, lot size, reorder point
- Accounting 1 & 2 – Valuation class, price control, standard price
- Storage – Storage conditions, temperature
- Plant Data / Storage 1 & 2 – Storage location data

2. Vendor Master (T-Code: XK01, XK02, XK03)

Vendor Master stores all information about a supplier. It has three sections:

- General Data – Name, address, language, bank details
- Company Code Data – Reconciliation account, payment terms
- Purchasing Organization Data – Order currency, incoterms, purchasing conditions

3. Purchasing Info Record (T-Code: ME11, ME12)

Stores purchasing conditions (price, delivery time, tolerance) for a specific Material-Vendor combination. Types: Standard, Subcontracting, Pipeline, Consignment.

Chapter 4: Procurement Process (P2P Cycle)

The Procure-to-Pay (P2P) cycle is the complete purchasing process in SAP MM. It involves the following steps:

Step	Process	T-Code	Description
Step 1	Purchase Requisition (PR)	ME51N	Internal request to purchase materials/services
Step 2	Request for Quotation (RFQ)	ME41	Send inquiry to vendors for pricing
Step 3	Quotation Comparison	ME49	Compare vendor quotes using price comparison list
Step 4	Purchase Order (PO)	ME21N	Official document sent to selected vendor
Step 5	Goods Receipt (GR)	MIGO	Receive materials against PO; stock increases
Step 6	Invoice Verification	MIRO	Match vendor invoice against PO and GR (3-way match)
Step 7	Payment	F110	Finance department makes payment to vendor

3-Way Matching

3-Way Matching is a key control in SAP MM. Before payment is released, SAP verifies that the Purchase Order (PO), Goods Receipt (GR), and Vendor Invoice all match in terms of quantity and value. This prevents overpayment and fraud.

Chapter 5: Inventory Management

Inventory Management in SAP MM handles all stock movements — goods receipts, goods issues, stock transfers, and physical inventory. The primary transaction is MIGO.

Key Movement Types

Movement Type	Description
101	Goods Receipt against Purchase Order
102	Reversal of GR against PO
201	Goods Issue to Cost Center
261	Goods Issue to Production Order
301	Stock Transfer (Plant to Plant, one step)
311	Transfer Posting (Storage Location to Storage Location)
501	Receipt without Purchase Order (unrestricted stock)
551	Scrapping of material

Stock Types

- Unrestricted Stock – Available for use/issue
- Quality Inspection Stock – Under inspection, cannot be used
- Blocked Stock – Not available, e.g., damaged goods
- Consignment Stock – Belongs to vendor, stored at your premises
- In-Transit Stock – Moving between plants

Chapter 6: Invoice Verification (MIRO)

Invoice Verification (Logistics Invoice Verification - LIV) is the process of verifying vendor invoices against the Purchase Order and Goods Receipt before payment.

Transaction: MIRO

Steps to post a vendor invoice in MIRO:

1. Enter transaction MIRO
2. Select Transaction type: Invoice
3. Enter Invoice Date, Posting Date, and Reference
4. Enter the Purchase Order number
5. System proposes PO items and GR quantities
6. Verify amounts match vendor invoice
7. Check the balance is zero (debit = credit)
8. Post the document

GR/IR Clearing Account

The GR/IR (Goods Receipt / Invoice Receipt) clearing account is a temporary balance sheet account that records the timing difference between receiving goods and receiving the invoice. It is cleared when both GR and Invoice are posted.

Chapter 7: Special Procurement Types

Subcontracting

You send raw materials to a vendor. The vendor processes them and returns finished goods. SAP automatically tracks the components sent to the vendor.

Consignment

Vendor keeps stock at your premises. You only pay when you consume the material. Consignment stock is managed separately in SAP.

Pipeline

For utilities like electricity, water, gas. Material flows through a pipeline and you pay for actual consumption.

Stock Transfer Order (STO)

Transfer of stock between plants or company codes using a formal order. Can be one-step (301) or two-step (303/305).

Third-Party Order

You create a PO, but the vendor delivers directly to your customer. Used in drop-shipping scenarios.

Blanket PO (Framework Order)

Long-term purchase agreement with a validity period and overall limit. No goods receipt required — invoice is posted directly.

Chapter 8: Valuation & Account Determination

Material valuation determines the value of materials in stock and drives automatic accounting entries in SAP FI.

Price Control Methods

Price Control	Code	Description	Best For
Standard Price	S	Fixed price set in material master. Variances posted separately.	Finished goods, semi-finished
Moving Average Price	V	Automatically recalculated on each GR based on quantity received.	Raw materials, trading goods

Valuation Class

The Valuation Class (set in Material Master > Accounting view) links a material to the appropriate G/L accounts in FI. For example, raw materials post to a different account than finished goods. SAP uses the OBYC transaction to configure automatic account determination.

Chapter 9: Important SAP MM Transaction Codes

T-Code	Description	Category
MM01/02/03	Create/Change/Display Material Master	Master Data
XK01/02/03	Create/Change/Display Vendor (Centrally)	Master Data
ME11/12/13	Create/Change/Display Purchasing Info Record	Master Data
ME51N	Create Purchase Requisition	Procurement
ME52N / ME53N	Change / Display Purchase Requisition	Procurement
ME41	Create RFQ	Procurement
ME47	Maintain Quotation	Procurement
ME49	Price Comparison List	Procurement
ME21N	Create Purchase Order	Procurement
ME22N / ME23N	Change / Display Purchase Order	Procurement
ME2M / ME2L	Purchase Orders by Material / Vendor	Reports
MIGO	Goods Movement (GR, GI, Transfer)	Inventory
MB52	Warehouse Stock Report	Inventory
MB51	Material Document List	Inventory
MIRO	Logistics Invoice Verification	Invoice
MR11	GR/IR Clearing Account Maintenance	Invoice
ME2N	Purchase Orders by PO Number	Reports
MMBE	Stock Overview	Reports
MI01/04/07	Create / Enter / Post Physical Inventory	Inventory

Chapter 10: Career Path & Certification Guide

SAP MM Career Roadmap

0-3 Months	Learn SAP basics, navigation, organizational structure, master data
3-6 Months	Master P2P cycle, inventory management, invoice verification
6-12 Months	Practice on SAP trial system, learn configuration (SPRO)
12-18 Months	Get certified, apply for junior SAP MM consultant roles
2-3 Years	Work on real projects, gain domain knowledge, learn S/4HANA
3-5 Years	Senior Consultant / Team Lead / Solution Architect roles

SAP Certifications

Certification	Exam Code	Level
SAP Certified Associate - SAP S/4HANA Sourcing and Procurement	C_TS450_2310	Associate
SAP Certified Professional - Sourcing and Procurement	P_MM_300	Professional
SAP Certified Associate - SAP S/4HANA Cloud (Procurement)	C_S4CPR_2402	Associate

Free Learning Resources

- SAP Learning Hub: learning.sap.com (free beginner courses)
- SAP Help Portal: help.sap.com (official documentation)
- YouTube: Search 'SAP MM Tutorial for Beginners'
- Udemy: Affordable SAP MM courses with hands-on exercises
- SAP Community: community.sap.com (Q&A, blogs, forums)
- ERPPREP.com: SAP MM practice questions and mock tests

Job Roles in SAP MM

Job Role	Experience	Avg. Salary (India)
SAP MM Junior Consultant	0-2 years	4 - 7 LPA
SAP MM Functional Consultant	2-5 years	8 - 15 LPA
SAP MM Senior Consultant	5-8 years	15 - 25 LPA
SAP MM Solution Architect	8+ years	25 - 45 LPA

Key Takeaways

- ✓ SAP MM is one of the most in-demand SAP modules globally.
- ✓ Master the P2P cycle — it is the core of SAP MM.
- ✓ Learn transaction codes by practicing on a live/trial system.
- ✓ SAP S/4HANA knowledge is increasingly required — start early.
- ✓ Get SAP certification to differentiate yourself in the job market.
- ✓ Join SAP Community and forums to stay updated.
- ✓ Domain knowledge (manufacturing, retail, pharma) adds great value.

Best of luck on your SAP MM journey!
Practice daily, stay curious, and keep learning.