What is Production Planning?

- Production planning is a process used by manufacturing companies to optimize the efficiency of their processes.
- It is concerned with the determination, acquisition and arrangements of all the facilities necessary for future operations.

Objectives of Production Planning:

- Effective utilization of resources.
- Steady flow of production.
- Coordination of activities of different departments.
- Minimize wastage of raw materials.
- Helps to capture the market.
- Facilitates quality improvement.
- Reduces production cost.
- Results in consumer satisfaction.
- Improves labor productivity.

Characteristics of Production Planning:

- Inputs like materials, men and machines are efficiently used.
- Factors of production are integrated to use them economically.
- Division of work is undertaken carefully so that every available element is properly utilized.
- Work is regulated from the first stage of procuring raw materials to the stage of finished goods.

What is Accounting Software?

- Accounting Software is an application software that records and processes accounting transactions within functional modules such as:
  - Accounts Payable
  - Accounts Receivable
  - Payroll
  - Trial Balance

Modules of Accounting Software:

Core Modules:

1. **Accounts Receivables:** Where the entries of received money is done.
2. **Accounts Payables:** Where the entries of bill and money paid is done.
3. **General Ledger:** The company's "books" that allows a business to keep track of all incoming and outgoing cash flow as well as generate financial reports and statements to gain a better understanding of the company's financial health
4. **Billing:** Where the company produces invoices to clients/customers.
5. **Stock/Inventory:** Where the company keeps control of its stock or inventory.
6. **Purchase Order:** Where the company stores the details of its ordered goods (i.e. stock).
7. **Sales Order:** Where the company stores its customer's orders that it has to supply.

Non – Core Modules:

1. **Debt Collections:** Where the company tracks attempts to collect overdue bills. (electronic payment processing)
2. **Expenses:** Where all the business related expenses are recorded.
3. **Incomes:** Where the company stores details related to its sales income and petty income.
4. **Inquiries:** Where the company looks up information on screen without any edit or additions.
5. **Payroll:** Where the company tracks salary, wages or related taxes.
6. **Report:** Where the company prints out its data in the form of reports (daily, weekly, monthly, quarterly, half-yearly or yearly)
7. **Timesheet:** Where time records are maintained for the order processing.
8. **Purchase Requisition:** Where the purchase orders are made, approved and tracked.

General Classification of Accounting Software:

1. **Spreadsheets:** Small business can be run just using an electronic spreadsheet for its accounting software. The spreadsheet software is inexpensive and the system can be configured in any way at all. However, spreadsheets are prone to error, since information may be entered in the wrong place, incorrectly, or not entered at all, resulting in inaccurate financial statements. Consequently, spreadsheets are mostly used by organizations that have very low transaction volumes.
2. **Commercially-available software:** Commercial off-the shelf software, easier known as COTS is the type of computer application that can be purchased at any computer retail store. Examples are most anti-virus programs, games and even computer utilities, such as word processors, database managers, spreadsheet creators and so on. COTS software is usually very reliable. Developers of COTS components conduct research into the most common types of business processes or problems solving techniques and compress them into software packages that can be used across the board. COTS applications are easy to install, with instructions contained in the package that encloses the COTS product. A softcopy is usually included on the disc that contains the installation files and resources and in several languages to boot.
3. **Enterprise resource planning software (ERP):** ERP software integrates information from all parts of a business into a single database. This approach eliminates the problems associated with having independent department-specific software that does not share information. However, it is also painfully expensive and may require more than a year to install. This software is usually only needed by the largest and most complex organizations.
4. **Custom accounting software:** This software is custom developed for an organization. This approach is usually only taken when an entity's needs are so specific that they cannot be met by a COTS or ERP package. However, this approach is rarely taken, since custom software tends to be buggy and requires more maintenance than commercially-available packages

Advantages of Accounting Software:

- Accounting software can help you save time and money, and offer you valuable insight into your business.
- **Simplify data entry:** inputting data is fast, straightforward and only needs to be carried out once.
- **Speed up processes:** reduce delays between making a sale and generating an invoice.
- **Automate reports and analysis:** on profit and loss, debtors and creditors, customer accounts, inventory counts, sales, forecasting, etc.
- **Automate tasks:** such as calculating pay, producing payslips, automatically calculating VAT, etc.
- **Reduce errors:** by computerizing calculations that would have historically been done manually.
- Supports other functions, such as online banking and e-filing

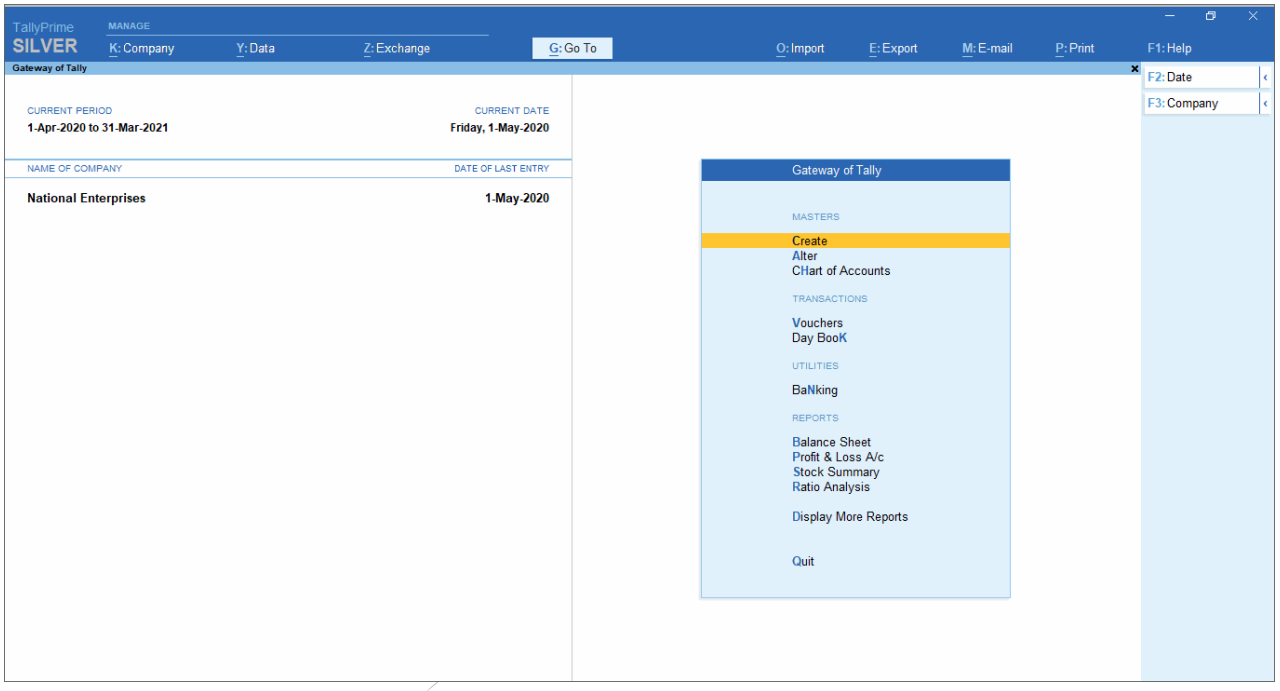
Disadvantages of Accounting Software:

- **Price:** The package cost, although small in relation to your other costs, is higher than a paper-based system.
- **Implementation:** You will probably need some initial help setting up an accounts package. This will usually be a chargeable service, provided by your accountant or the system provider.
- **Support:** You may need to purchase yearly maintenance and support for your package.

Accounting Software Application – Tally ERP:

Introduction:

- Tally is designed to integrate all business operations, like sales, finance, purchasing, inventory, and manufacturing and so on.
- TALLY facilitates accurate and up-to-date business information at our fingertips anywhere.

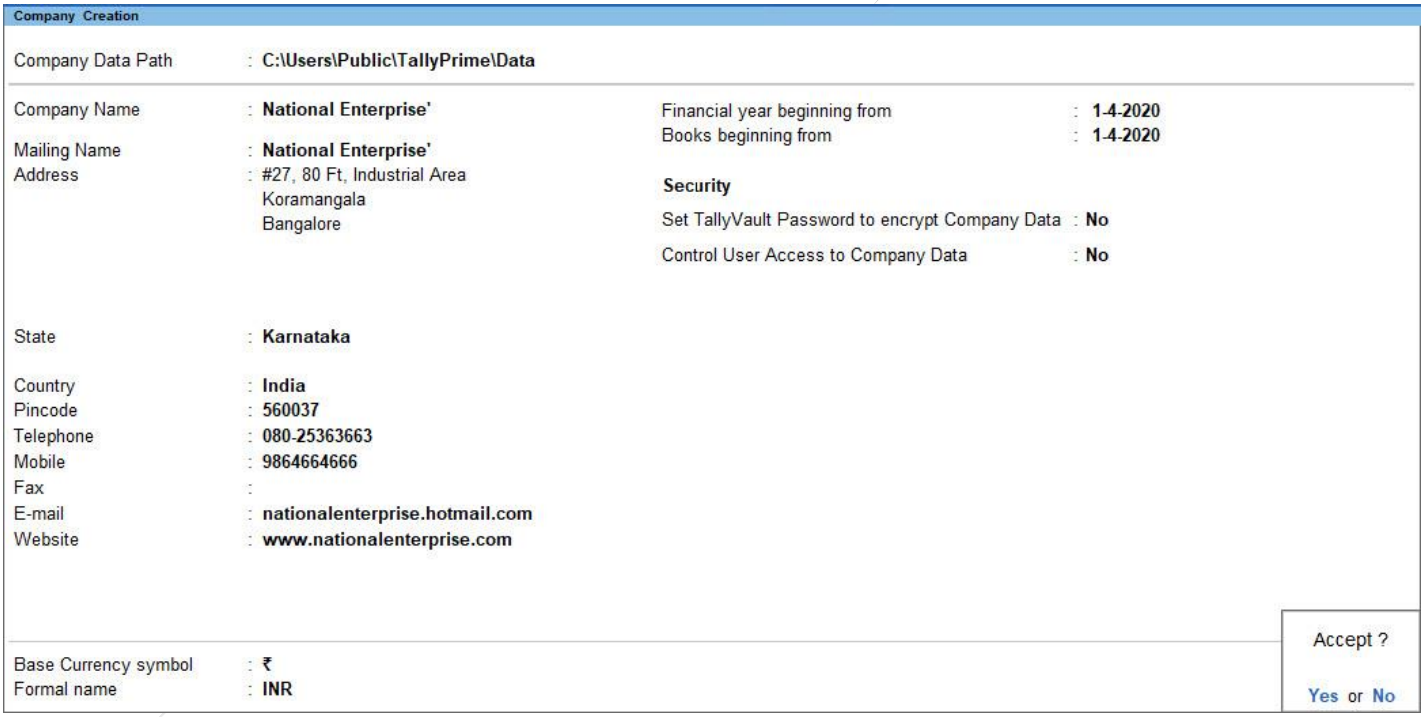


Features of Tally:

- **Simplicity:** Tally ERP is easy to setup & it requires basic knowledge of accounts to use it.
- **Speed:** Tally ERP provides the capability to generate accurate report, which inspire the management to take correct decision in favor of company.
- **Support Center:** Allows a user to directly post his support queries on functional and technical aspects of the product.
- **Tally.Net:** Tally.Net establish a connection through which the remote user can access the data without copying/transferring.
- **Remote Access:** Tally provides remote capabilities to access the data from any-where anytime.

How to create a company?

1. Create → Company
   Alternatively, Gateway of Tally → Create Company
2. Enter the Company Name, Mailing Name and Address
   ["Company Name" is for the reference in the application, "Mailing Name" will be printed on all the reports]
3. Select state and country
   [Based on country selected, the statutory options will vary]
4. Verify the "Financial Year beginning from" and "Books beginning from" dates.
5. Set security details, if needed.
6. Verify the "Base Currency" details.



1. Accept the Company Screen. Thereafter, a confirmation screen appears with the list of features that you can enable.

2. Set up the features as needed. (this can be done later also)
   Once the company is created, you can start recording the transactions directly.

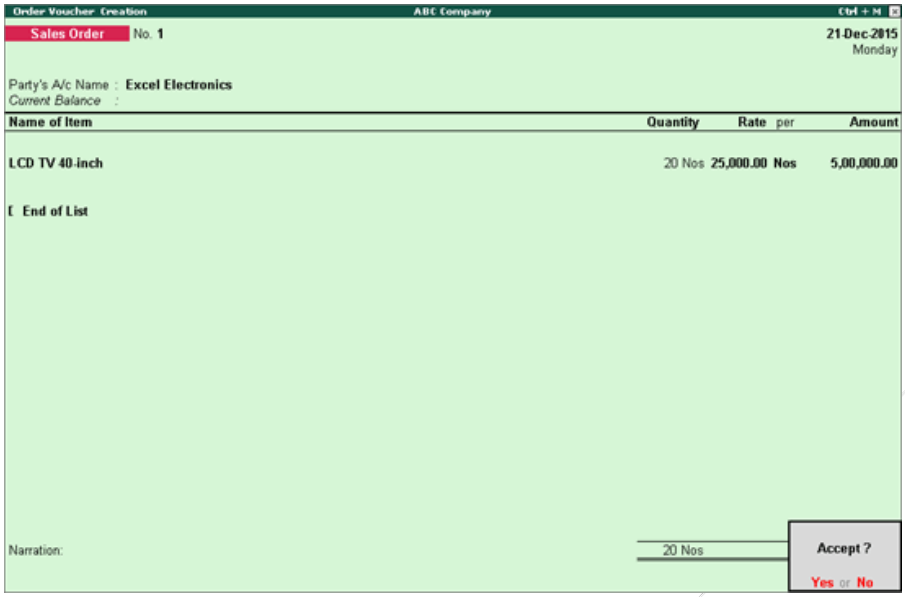
Record your transaction:

- Voucher entry in TallyPrime remains similar, regardless of the type of transaction you choose.
- For instance, consider the case of recording a sales entry.

Steps:

1. Open the voucher screen
   Alt+G (GoTo) → Create Voucher → press F8 (sales)
   Alternatively, go to Gateway of Tally → Vouchers → press F8
2. Specify the buyer details:
   In 'party a/c name', select CASH or BANK for cash sales. For credit sales, select the party name.
3. Select the item details:
   Enter quantity and rate or value.
4. Provide Narration, if any.
5. Press 'ctrl+A' or press 'y' in the accept message box to save.

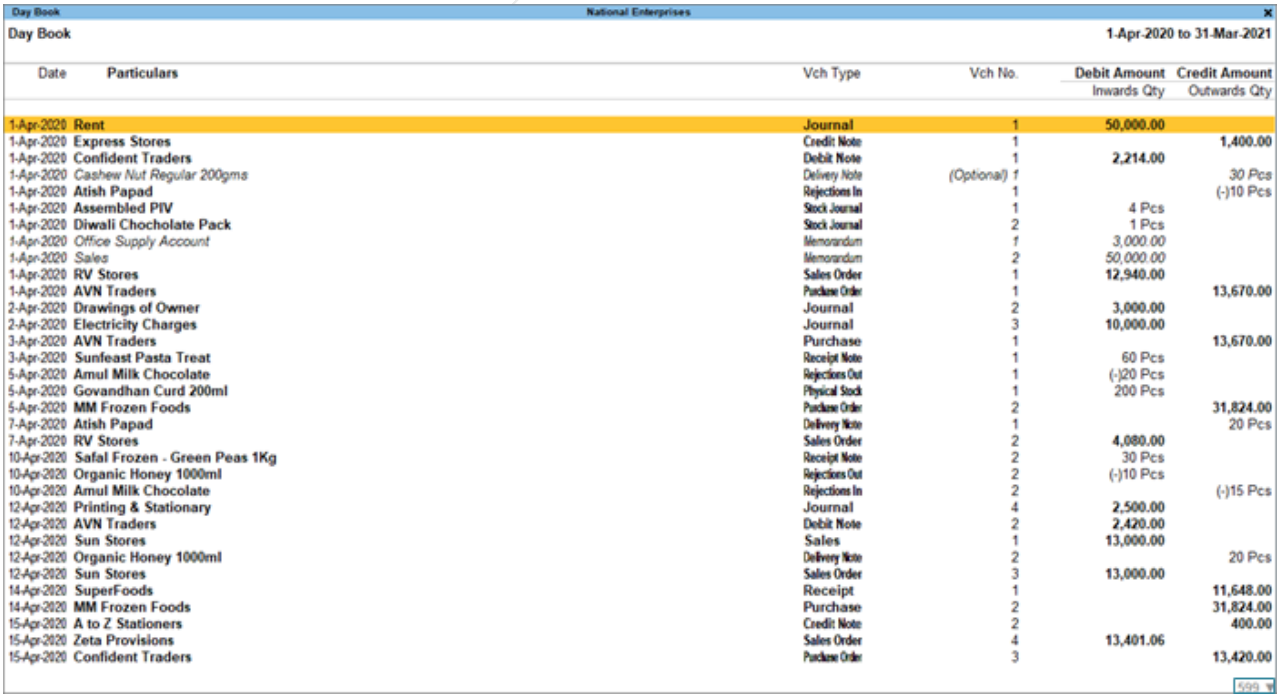
(Similarly you can record other type of transactions also)



View Reports:

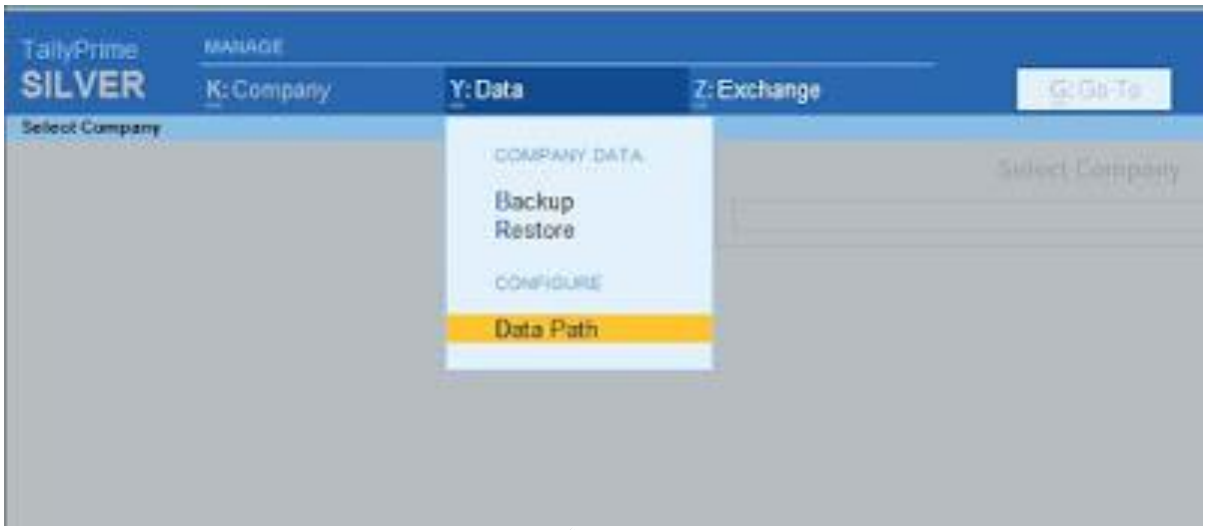
Once the transactions are recorded, one can view the related reports immediately. For example, we can check "Day Book" to see the list of all transactions recorded in a particular day.

- Press "alt+G" → Day Book **OR** Go to Gateway of Tally → Day Book



Backup of the data:

1. Go to Gateway of Tally → Press "alt+F3" → Company info. → Backup
2. Select specific path (source)
3. Select destination
4. Select the companies for data backup
5. Save the screen

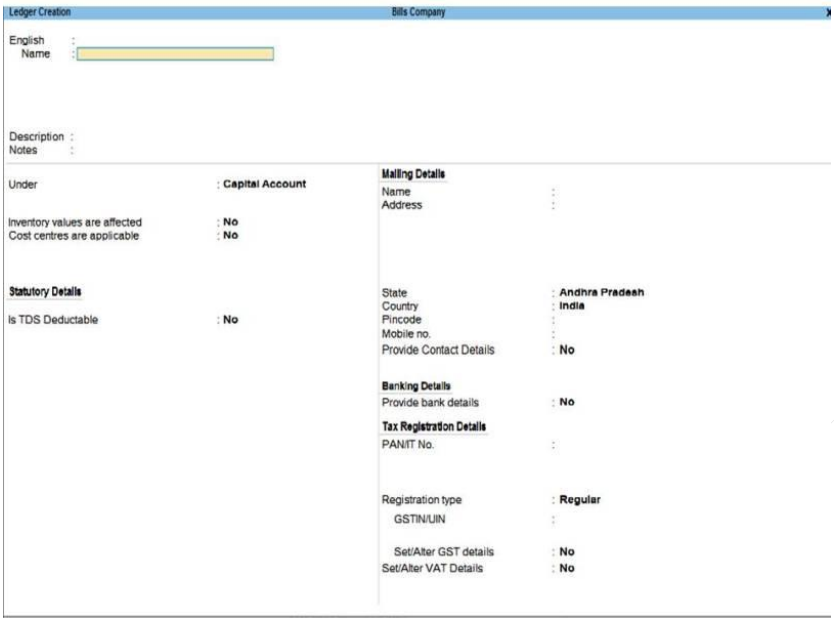


Restore the data:

1. Go to Gateway of Tally → Press "alt+F3" → Company info. → Restore
2. Select destination
3. Select source
4. Select the companies for data restore from the list of available companies
5. Save the screen

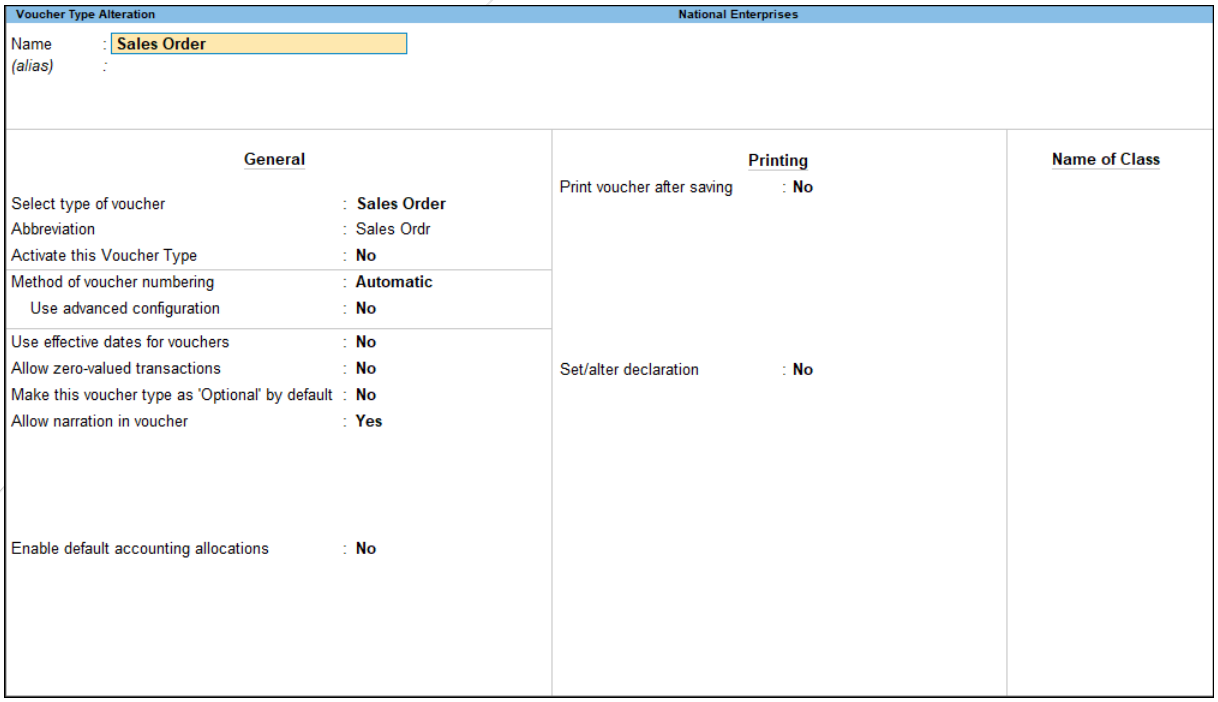
Create Ledgers:

- By default, TallyPrime contains two ledger accounts namely, cash and profit & loss account.
- Based on our requirement, we can create all the other accounts heads.
  - Go to Gateway of Tally → Accounts info. → Ledgers → Create



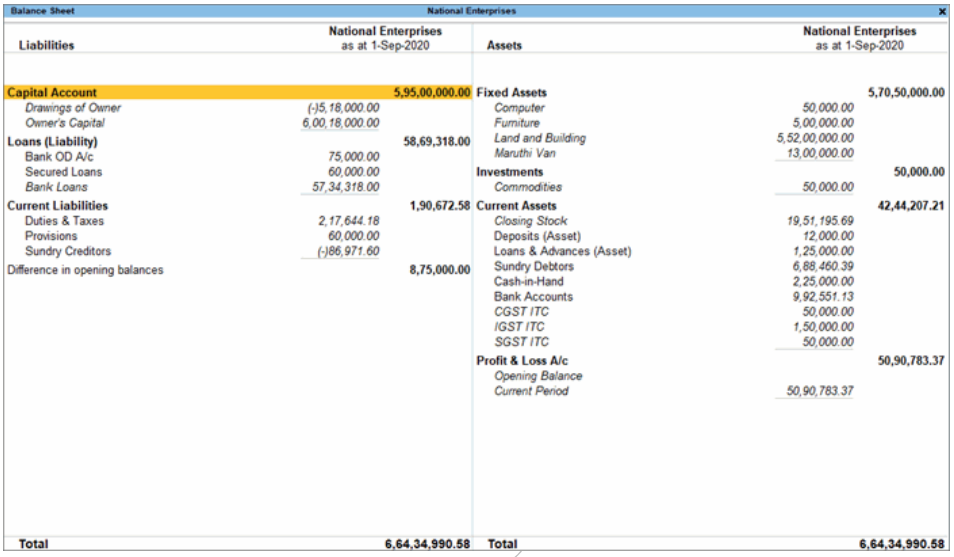
Create a voucher:

- Tally ERP comprises vouchers, to suit different business requirements. It also allows us to create user-defined vouchers as per requirements.
  - Create voucher type → Go to Gateway of Tally → Account info. → Voucher type → Create



Create Balance Sheet:

- A balance sheet is a financial statement that reports a firm's financial position at a specific time.
  - Go to Gateway of Tally → Balance Sheet

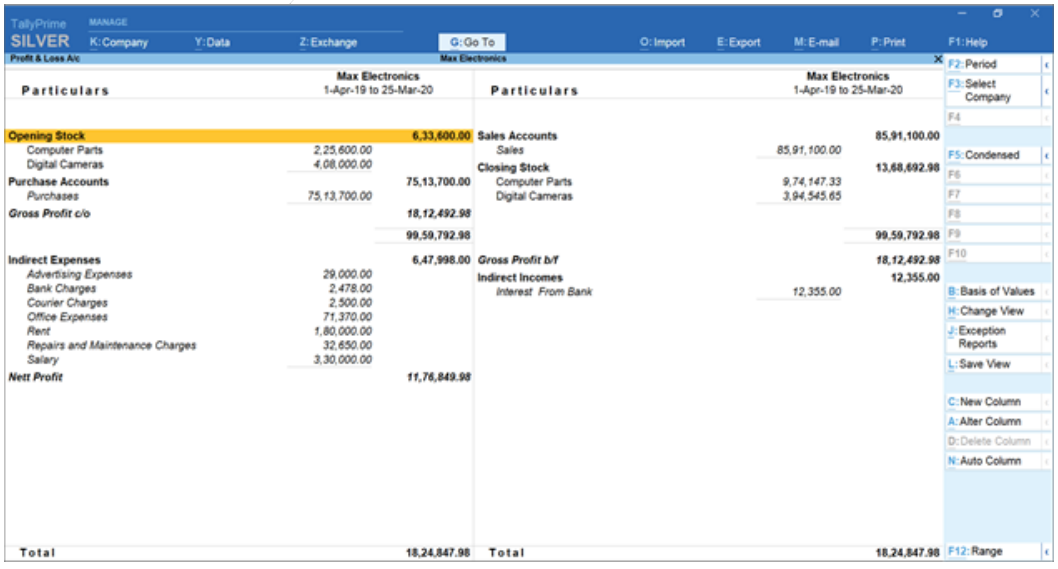


Balance Sheet — National Enterprises

Liabilities	National Enterprises as at 1-Sep-2020		Assets	National Enterprises as at 1-Sep-2020	
Capital Account		5,95,00,000.00	**Fixed Assets**		5,70,50,000.00
Drawings of Owner	*(-)5,18,000.00*		*Computer*	*50,000.00*	
Owner's Capital	*6,00,18,000.00*		*Furniture*	*5,00,000.00*	
Loans (Liability)		58,69,318.00	*Land and Building*	*5,52,00,000.00*	
Bank OD A/c	*75,000.00*		*Maruthi Van*	*13,00,000.00*	
Secured Loans	*60,000.00*		**Investments**		50,000.00
Bank Loans	*57,34,318.00*		*Commodities*	*50,000.00*	
Current Liabilities		1,90,672.58	**Current Assets**		42,44,207.21
Duties & Taxes	*2,17,644.18*		*Closing Stock*	*19,51,195.69*	
Provisions	*60,000.00*		Deposits (Asset)	*12,000.00*	
Sundry Creditors	*(-)86,971.60*		Loans & Advances (Asset)	*1,25,000.00*	
Difference in opening balances		8,75,000.00	Sundry Debtors	*6,88,460.39*	
			Cash-in-Hand	*2,25,000.00*	
			Bank Accounts	*9,92,551.13*	
			CGST ITC	*50,000.00*	
			IGST ITC	*1,50,000.00*	
			SGST ITC	*50,000.00*	
			Profit & Loss A/c		50,90,783.37
			Opening Balance		
			Current Period	*50,90,783.37*	
Total		6,64,34,990.58	**Total**		6,64,34,990.58

Create Profit & Loss Account:

- Profit & Loss Account is a periodic statement, which shows the net result of business operations for a specific period.
  - Go to Gateway of Tally → Profit & Loss A/c



TallyPrime SILVER — K:Company Y:Data Z:Exchange G:Go To O:Import E:Export M:E-mail P:Print F1:Help

Profit & Loss A/c — Max Electronics

Particulars	Max Electronics 1-Apr-19 to 25-Mar-20		Particulars	Max Electronics 1-Apr-19 to 25-Mar-20	
Opening Stock		6,33,600.00	**Sales Accounts**		85,91,100.00
Computer Parts	*2,25,600.00*		*Sales*	*85,91,100.00*	
Digital Cameras	*4,08,000.00*		**Closing Stock**		13,68,692.98
Purchase Accounts		75,13,700.00	Computer Parts	*9,74,147.33*	
Purchases	*75,13,700.00*		Digital Cameras	*3,94,545.65*	
Gross Profit c/o		***18,12,492.98***			
		99,59,792.98			99,59,792.98
Indirect Expenses		6,47,998.00	***Gross Profit b/f***		***18,12,492.98***
Advertising Expenses	*29,000.00*		**Indirect Incomes**		12,355.00
Bank Charges	*2,478.00*		*Interest From Bank*	*12,355.00*	
Courier Charges	*2,500.00*				
Office Expenses	*71,370.00*				
Rent	*1,80,000.00*				
Repairs and Maintenance Charges	*32,650.00*				
Salary	*3,30,000.00*				
Nett Profit		***11,76,849.98***			
Total		18,24,847.98	**Total**		18,24,847.98

F2:Period F3:Select Company F4 F5:Condensed F6 F7 F8 F9 F10 B:Basis of Values H:Change View J:Exception Reports L:Save View C:New Column A:Alter Column D:Delete Column N:Auto Column F12:Range

Difference between Manual Accounting & Computerized Accounting:

Sr. No.	Manual Accounting	Computerized Accounting
1.	Identification of transaction is done manually.	Transactions are identified on the basis of well-designed programs.
2.	Transactions are recorded and retrieved through books of original entries.	Transactions are recorded and stored in well-designed databases.
3.	Transactions are recorded first in the books of original entry, then they are to be posted into ledger accounts. Thus, they are recorded twice.	The stored data is processed automatically in classified ledger accounts.
4.	After the preparation of ledger accounts, balances of various accounts are known and hence a trial balance is prepared in order to summaries the data.	Need not generate ledger accounts to produce trial balance. The data in each transaction is processed to show the balance report automatically.
5.	Financial statements are prepared on the basis of trial balance.	The generation of financial statements is independent of trial balance.
6.	Books are closed at the end of accounting period by posting of closing and reversing journal entries	Opening and closing account balances are stored in databases

Inventory Application Software System:

What is inventory?

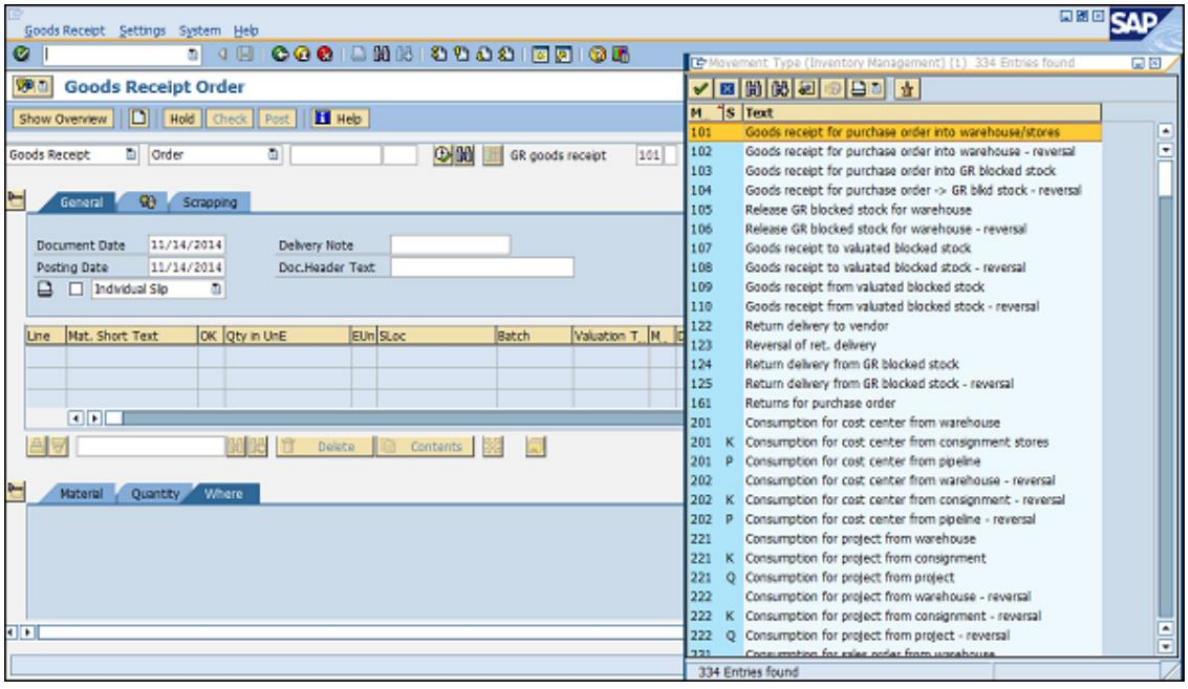
- "Stock of items kept to meet future demand"
- Inventory management is the process of efficiently monitoring the flow of products into and out of an existing inventory in the warehouse.
- This process involves controlling the receipt of products in order to prevent the inventory from becoming too high where items are stored at an unnecessary cost, or too low where it can cause a stock-out and production could be halted due to lack of raw materials.
- Types of Inventories:
  - **Raw materials:** it is the inventory item that is used in the manufacturer's conversion process to produce components, sub-assemblies, or finished products.
  - **Work in progress (partially completed):** it includes all the materials – from raw materials that has been released for initial processing up to the material that has been completely processed and is awaiting the final inspection and acceptance before including it into the finished goods.
  - **Finished goods:** It is a completed part that is ready for a customer order. Therefore, finished goods inventory is the stock of the completed final products.
  - **Transit inventory:** if there is a need to transport some items or materials from one location to another, from the fact there is some transportation time involved in getting to the desired location. Such goods are sometime termed as 'pipeline inventory'.

Objectives of inventory management:

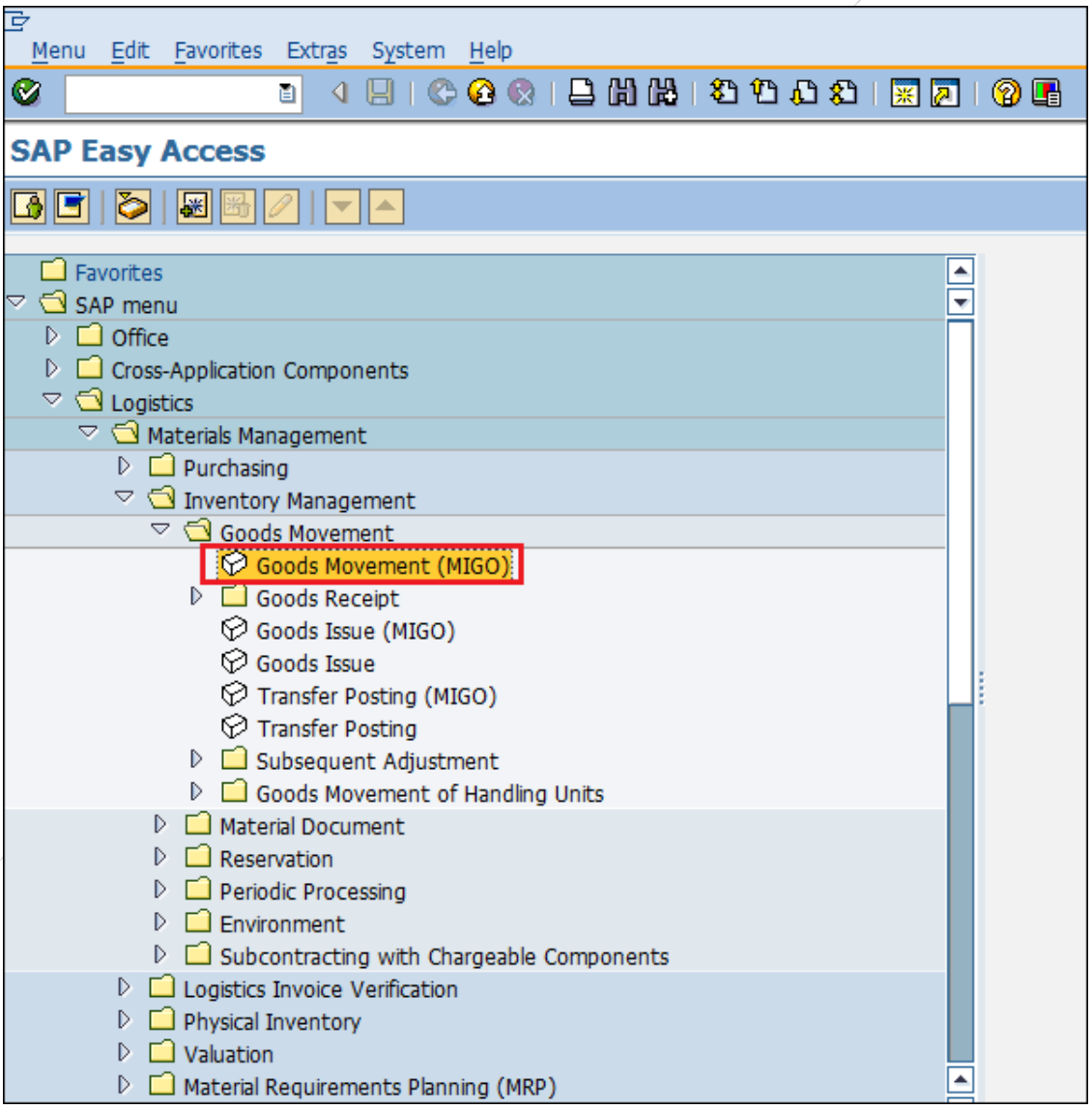
- To ensure supply of raw material, spares and finished goods.
- To avoid both overstocking and under stocking of inventory.
- To maintain investments in inventories at optimum level.
- To eliminates duplications in order.
- To keep material cost under control.
- To minimize losses through wastage and damages.

Inventory management by SAP ERP:

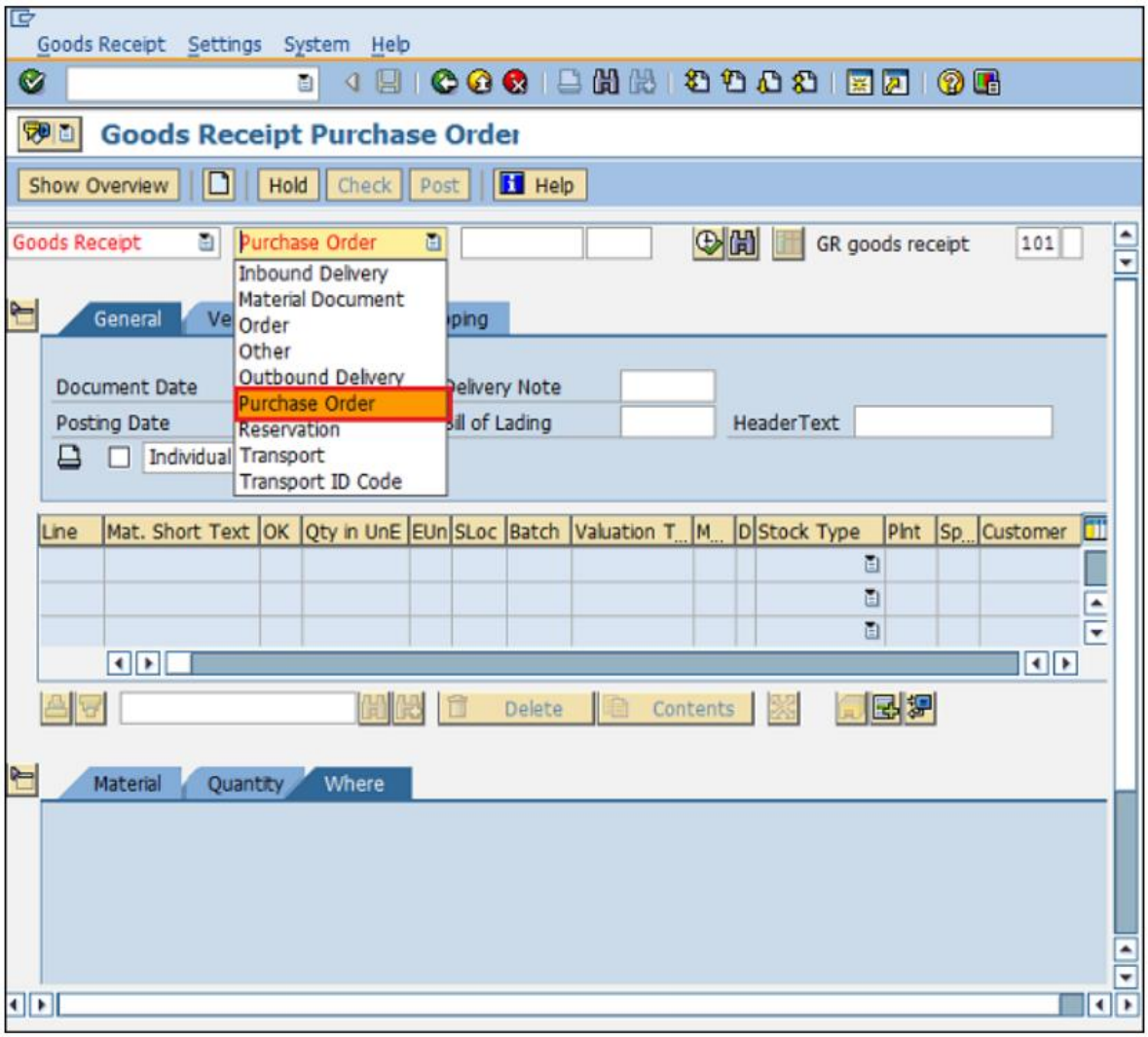
- Inventory management deals with placing and handling stock received from vendors in correct place within company's premises.
- The key points about inventory management are as follows:
  - Inventory management deals with management of stock either on value or quantity basis.
  - Planning, entry and keeping records of all goods movement comes under inventory management.
  - Goods movement will create a document that will update all stock quantity and value in inventory that is known as material document.
  - Material document will be referred by a document number and document year.
- Inventory management deal with the following terms which are as follows:
  - Movement Type
  - Goods Receipt
  - Reservation
  - Goods Issue



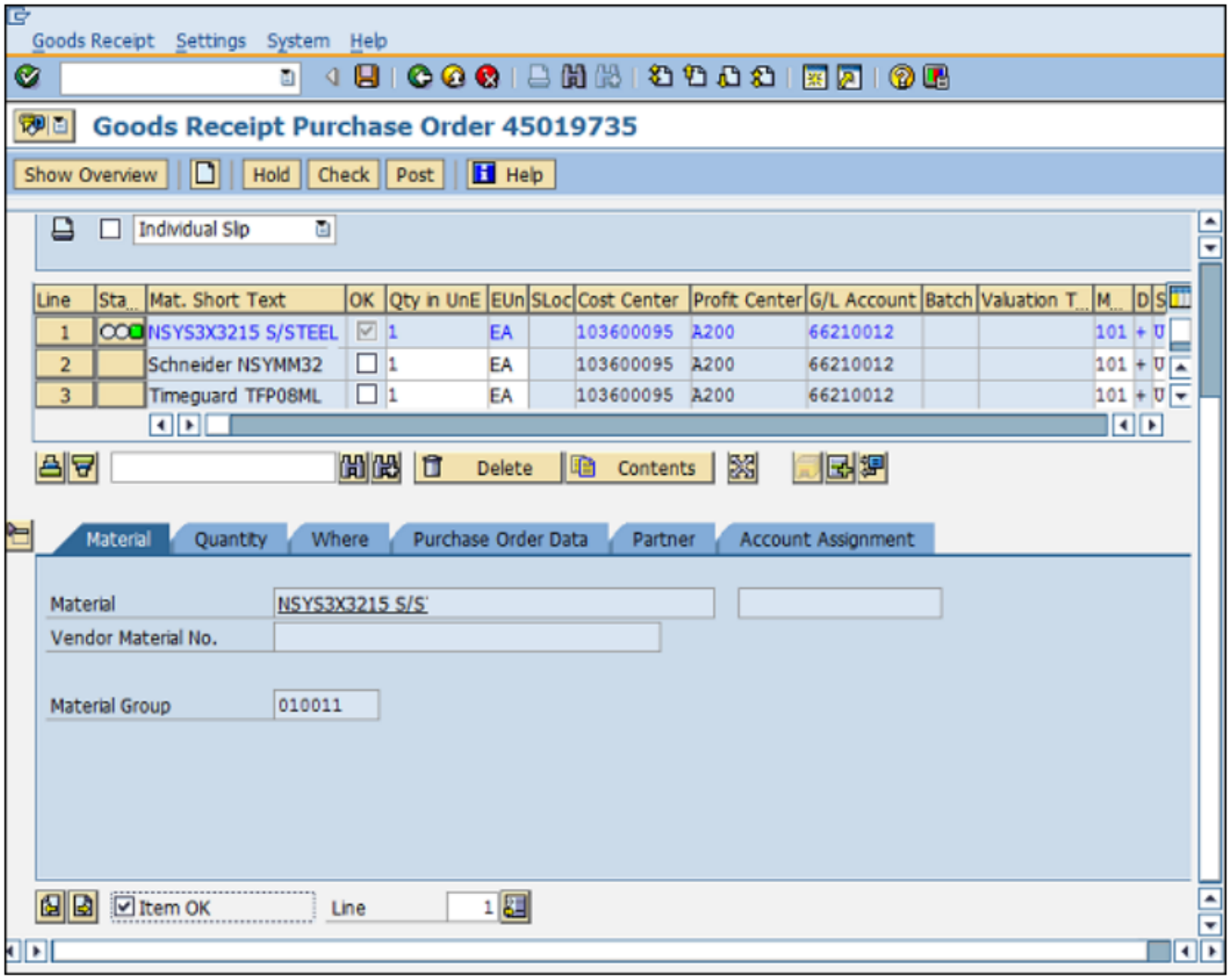
1. **Movement type:**
   - It describes the type of stock posting in inventory. It represents the posting in stock is due to which type of order (i.e. stock is posted against goods receipt or goods issue)
2. **Goods receipt:**
   - Goods receipt is the phase in which the material is received by the ordering party and the 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 increase in warehouse stock.



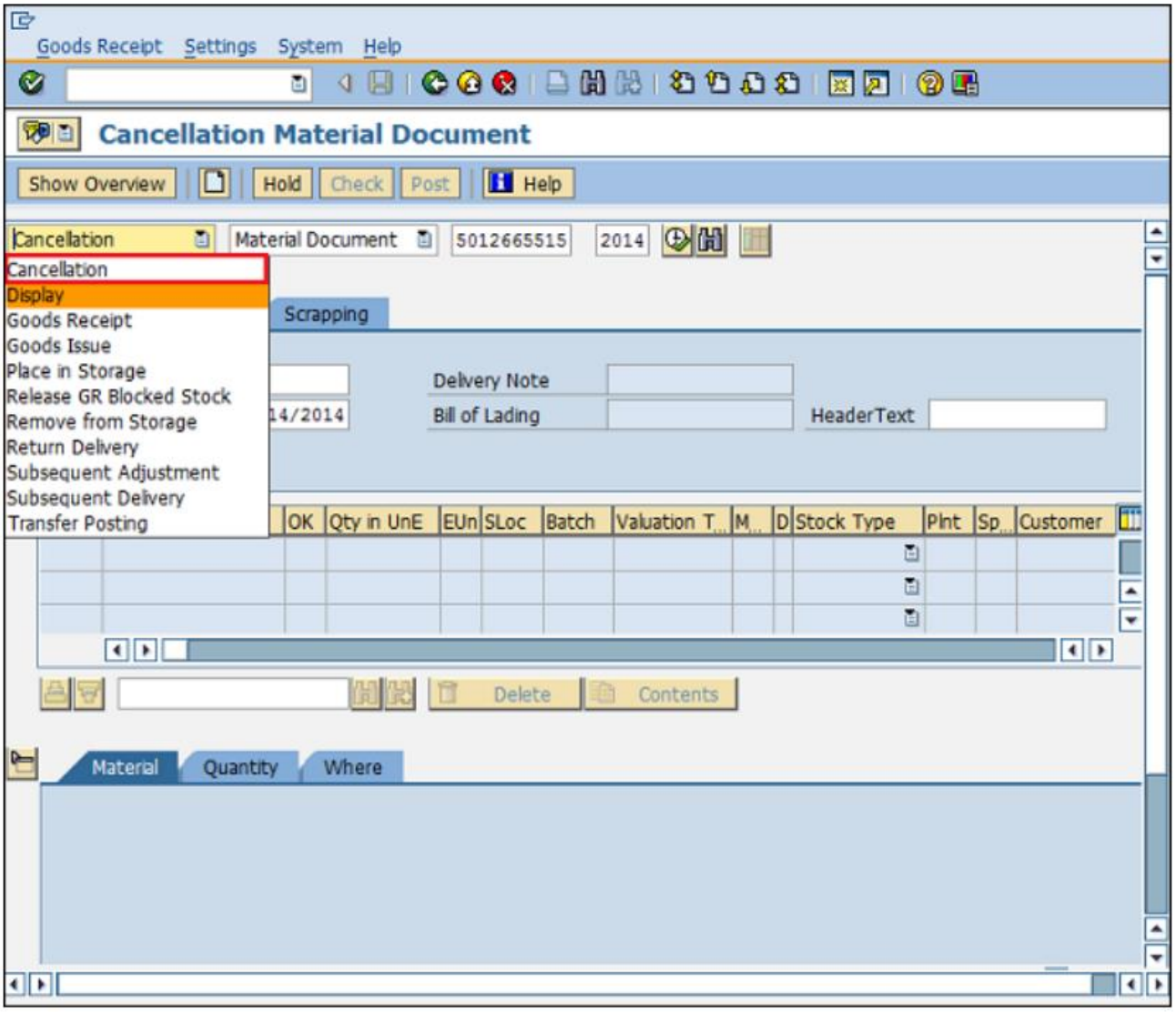
- Goods receipt has two scenarios which are as follows.
  - **Creation of Goods Receipt:**
    - Goods receipt can be posted against various documents.
    - Select the required document from the drop-down.
    - For example in this case we are selecting purchase order. Select the movement type according to the requirement.



    - It will fetch all the details from the selected reference document like material, quantity, plant. 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.

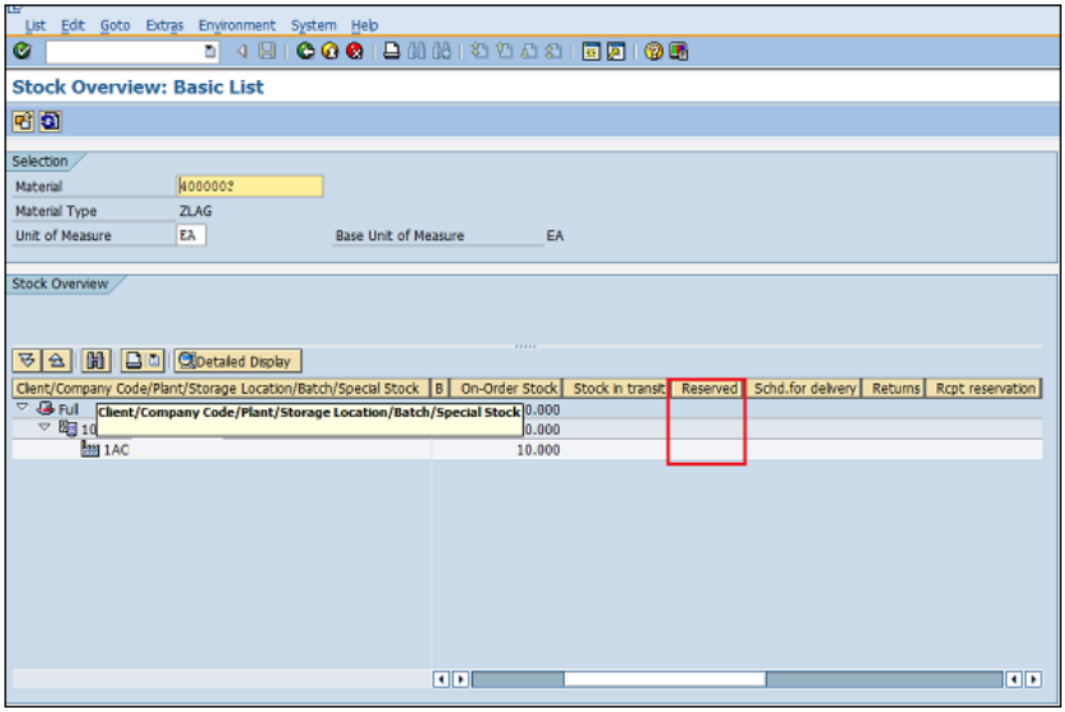


- **Cancellation of Goods Receipt:**
  - Sometimes goods receipt is not posted correctly.
  - So goods receipt needs to be cancelled and it can be cancelled by following the below steps.
  - Path to Cancel Goods Receipts: Logistics → Materials Management → Inventory Management → Goods Movement → Goods Movement (MIGO)
  - On the same MIGO screen select from drop-down Cancellation against a material document number. Provide the material document number.



3. Reservation:

- Sometimes, stock need to be blocked in advance so that it can be available at a particular point of time. This is known as reservation. Reservation ensures that stock is available and it can be used when required.
- 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.


List Edit Goto Extras Environment System Help
Stock Overview: Basic List
Selection
Material
Material Type
ZLAG
Unit of Measure
EA
Base Unit of Measure
EA
Stock Overview
Detailed Display
Client/Company Code/Plant/Storage Location/Batch/Special Stock
On-Order Stock
Stock in transit
Reserved
Schd.for delivery
Returns
Rcpt reservation
1AC
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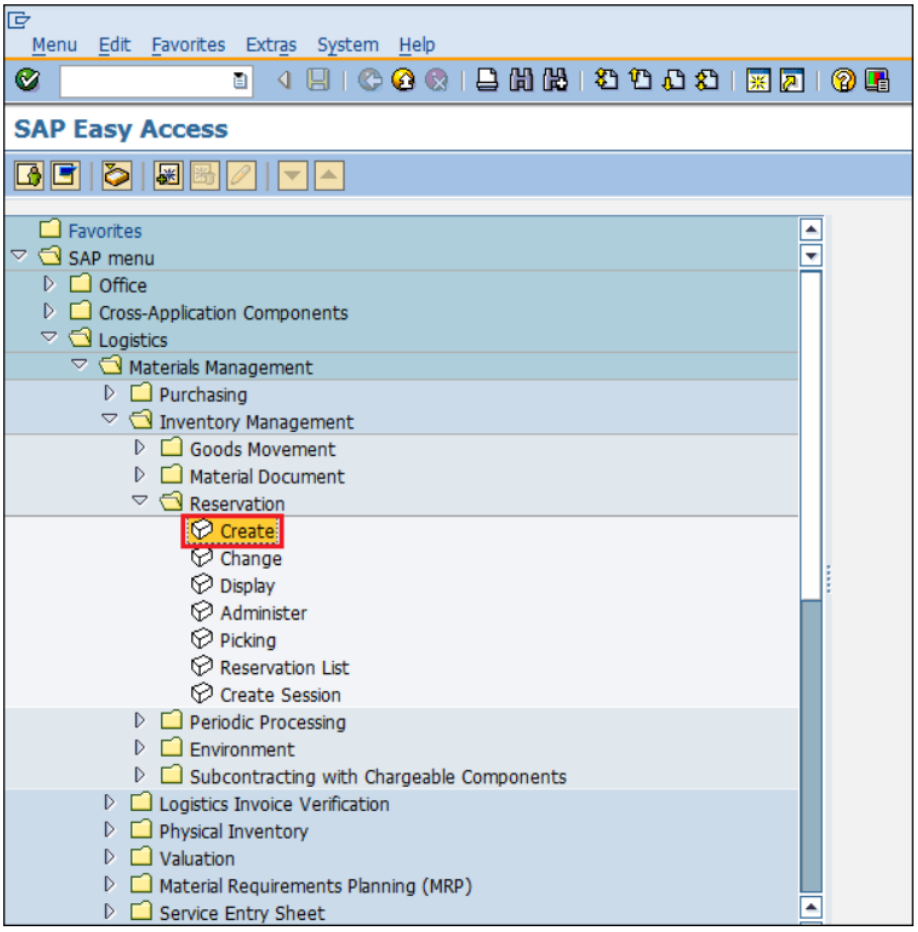
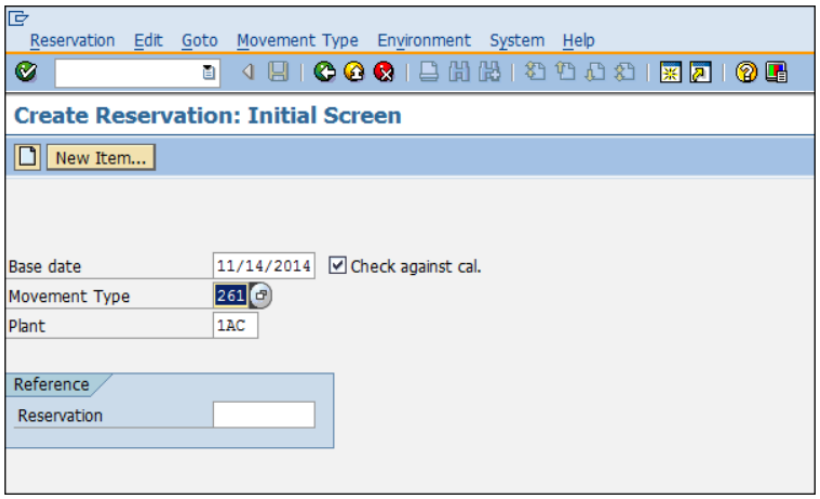
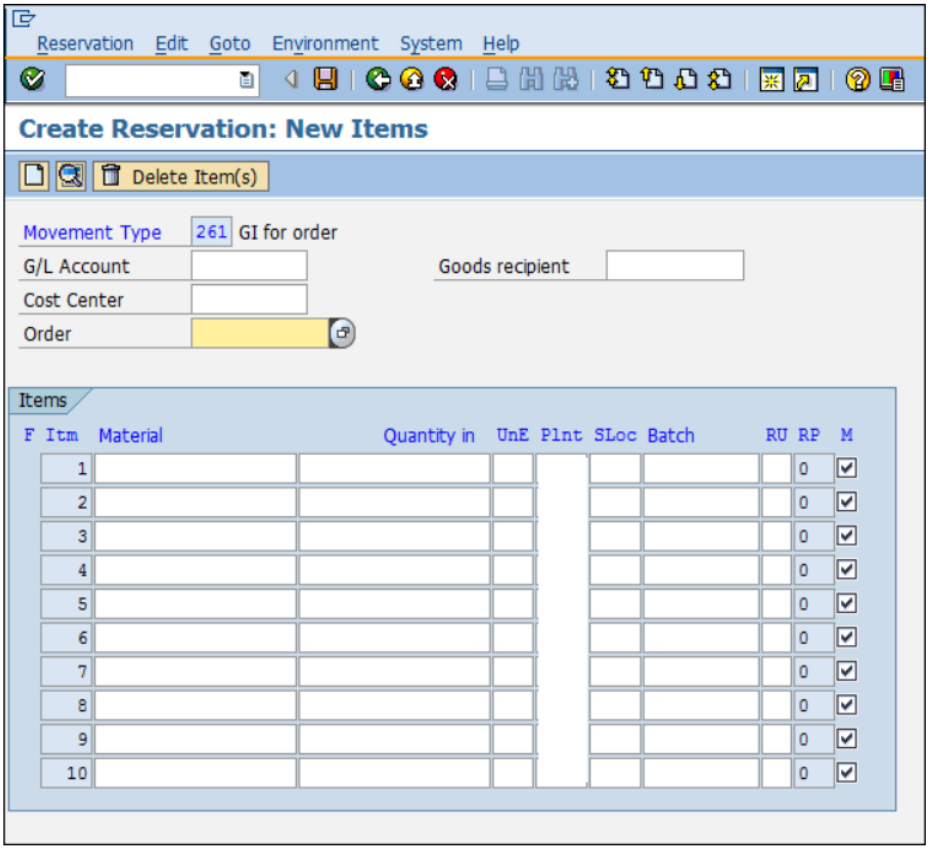

Menu Edit Favorites Extras System Help
SAP Easy Access
Favorites
SAP menu
Office
Cross-Application Components
Logistics
Materials Management
Purchasing
Inventory Management
Goods Movement
Material Document
Reservation
Create
Change
Display
Administer
Picking
Reservation List
Create Session
Periodic Processing
Environment
Subcontracting with Chargeable Components
Logistics Invoice Verification
Physical Inventory
Valuation
Material Requirements Planning (MRP)
Service Entry Sheet

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

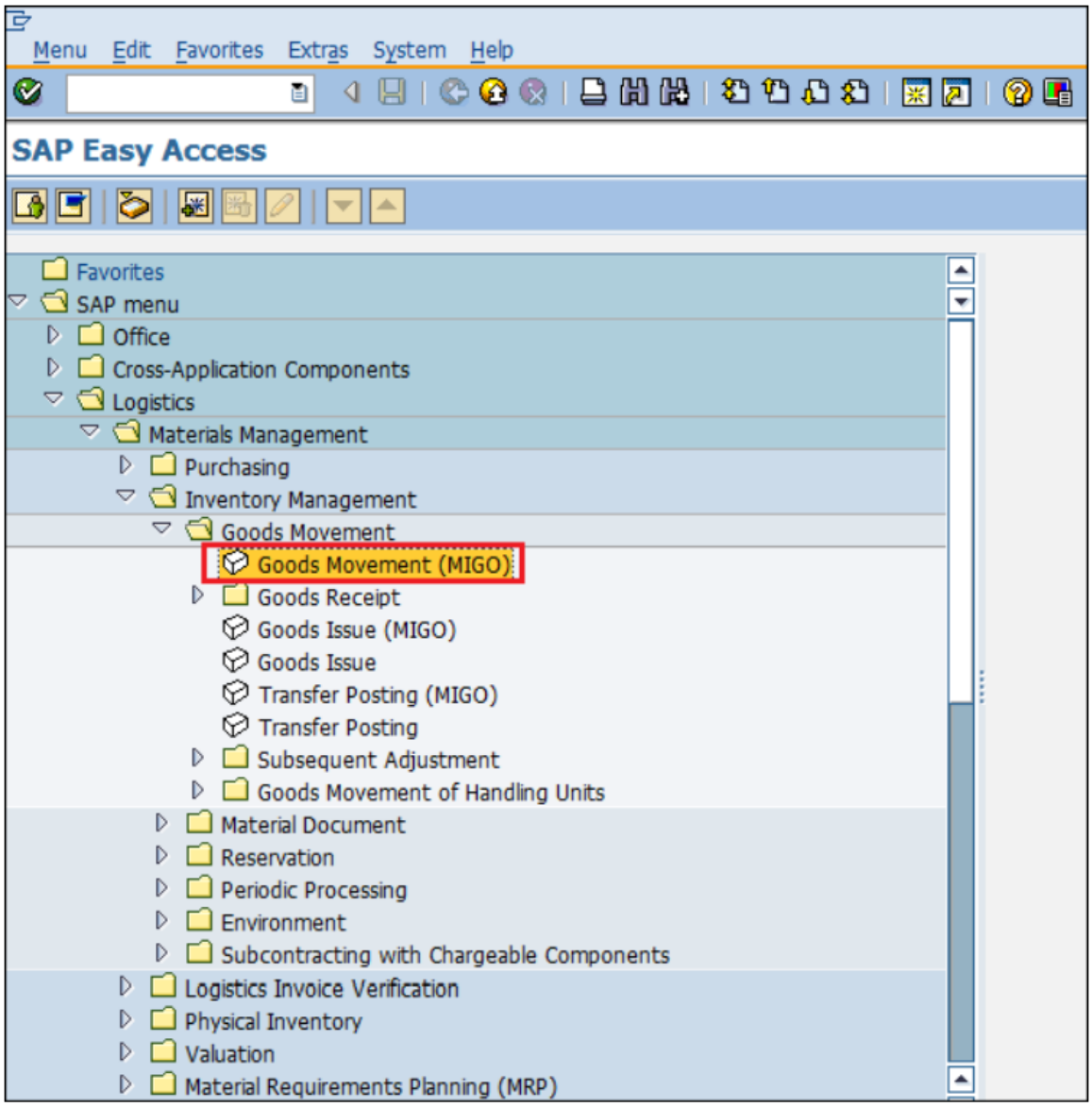


- Enter the order number against which you want to make reservation. Provide the details of material and quantity that is to be reserved. Click on save. Reservation is now made for the order.

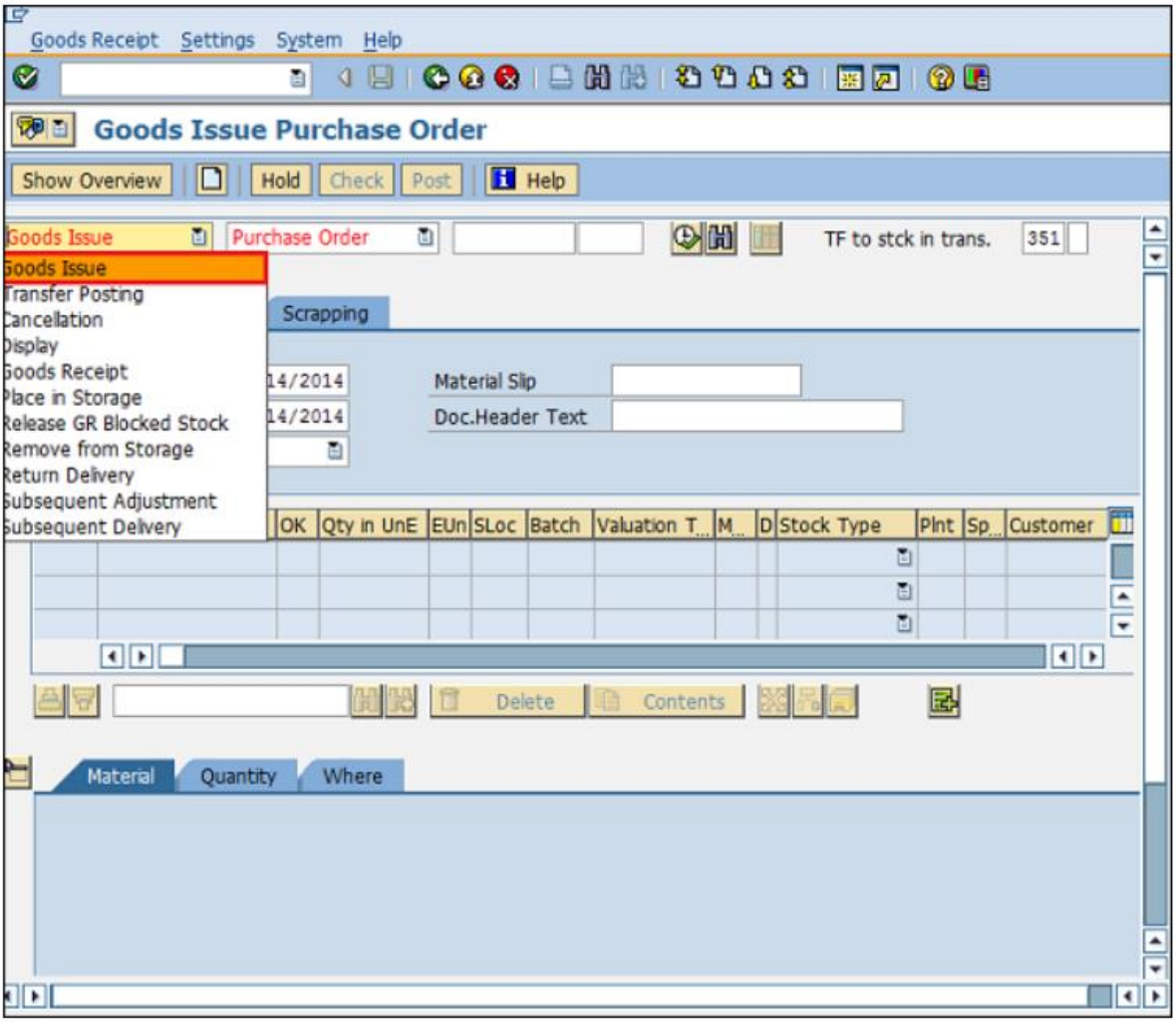


4. Goods Issue:

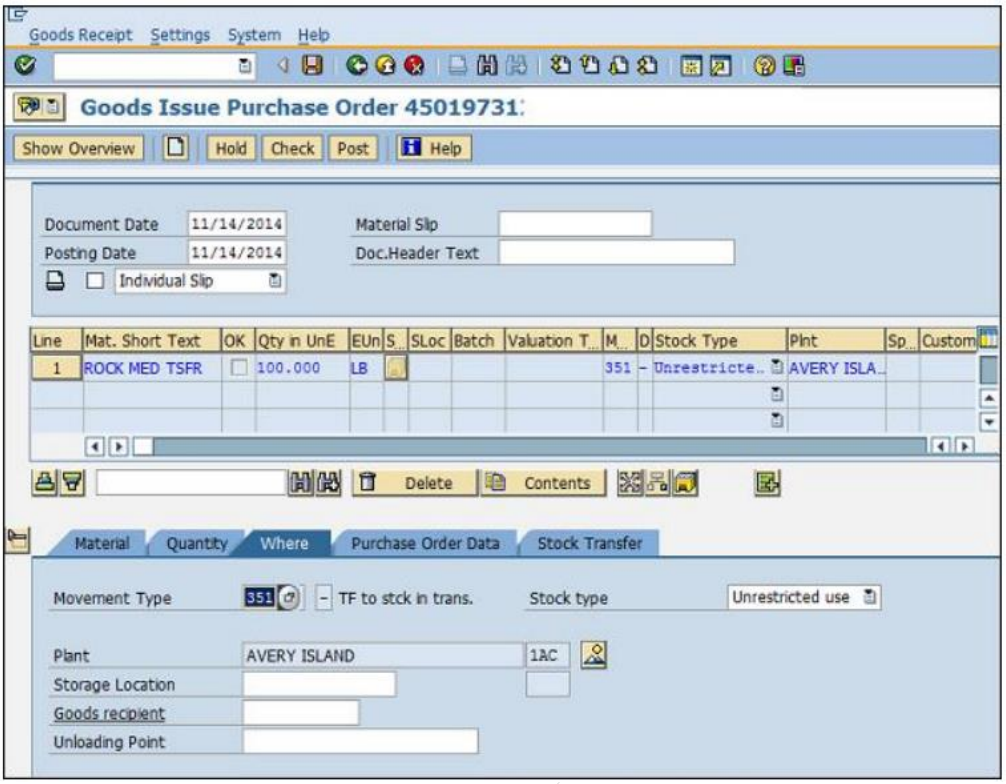
- Goods issue means moving stock out of inventory that may be due to several reasons like withdrawing of material for sampling or returning the goods back to vendor.
- So, goods issue will result in decrease in quantity in warehouse.
- Goods issue can be done by following the below steps.
- Path to post Goods Issue: Logistics → Materials Management → Inventory Management → Goods Movement → Goods Movement (MIGO)



- Select goods issue from 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.



- It will fetch all the details from the selected reference document like material, quantity, plant. Select 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.



Mobile Applications:

- Mobile applications (also known as mobile apps) are software programs developed for mobile devices such as smartphones and tablets.
- Mobile applications frequently serve with similar services to those accessed on PCs.
- This use of app has been popularized by Apple Inc. and its App Store, which sells thousands of applications for the iPhone, iPad and iPod Touch.

Concept of mobile apps and their operating systems:

- "An app is an interactive software program."
- It offers the user something to do.
- A few examples include:
  - A game or activity
  - An interactive map
  - Up-to-date weather information

- A photo editing or sharing program
- An ordering system where they can order goods directly from you on their phone.

Types of mobile apps:

1. **Native Apps:**
   - Native apps are downloaded via Apple App stores or Google Play store and run directly on the mobile device.
   - It is like downloadable software programs that save files on your computer.
   - Native apps are developed specifically for one platform and can take full advantages of all device features like Camera, GPS etc.
   - Native apps use native language of the platform which needs unique expertise.
   - Like "Objective – C" on iOS, Java on Android.
   - Native apps can use the device's notification system and can work offline.
2. **Web Apps:**
   - A web app "is an application that is accessed via a web browser over a network such as the Internet."
   - Web apps are not real applications; they are really websites.
   - Web apps typically written in HTML5.
   - Web apps load in browsers like Chrome, Safari, or Firefox and they don't take up any memory or storage on the user's device.

Websites vs Webapps:

- A website is typically considered a set of web pages viewed with a browser.
- Basically, this is meant to be a static set of pages that provides viewers with information.
- A web apps are interactive sites that provides various interactive elements for user interaction.

- For example, Wikipedia is a website; it provides information. Facebook is a web app.

Why do we need a separate OS for mobile?

- No power cable and Mobiles need to be small enough to hold in hands, so all parts should be made as small as possible. Including battery, meaning limited power, so OS should be able to work well with limited power.
- No mouse/keyboard, so User interface should be different.
- No expandable RAM, so OS should work with limited RAM in all conditions.
- Cellular communications needs to be supported, so OS should be able to communicate with communication processor.
- No Ethernet cable, so other connectivity become necessary, OS should support other protocols.
- To satisfy all above, hardware will become significantly different than desktops, so OS should be compatible with new hardware.

Android Operating System:

- It is an open source software and operating system for mobile devices.
- Based on the Linux Kernel.
- Developed by Google.
- Android can run multiple apps at the same time.
- Also support optimized graphics VGA, 2D graphics and 3D graphics.
- Android keeps information visible on our home screen.
- Also supports Java application.

S.No	Version	Name	Year
1.	Android 1.0	Apple pie	2008
2.	Android 1.1	Banana Bread	2009
3.	Android 1.5	Cupcake	2009
4.	Android 1.6	Donut	2009

5.	Android 2.0	Eclair	2009
6.	Android 2.2	Froyo	2010
7.	Android 2.3	Ginger Bread	2010
8.	Android 3.0	Honeycomb	2011
9.	Android 4.0	Ice-cream Sandwich	2011
10.	Android 4.1	Jellybean	2012
11.	Android 4.4	Kitkat	2013
12.	Android 5.0	Lollipop	2014
13.	Android 6.0	Marshmallow	2015
14.	Android 7.0	Naugat	2016
15.	Android 8.0	Oreo	2017

iOS Operating System:

- iOS or IPhone OS is the mobile operating system that runs on Apple's mobile devices, i.e. iPhones and iPads.
- It's the main software that allows you to interact with your Apple phone or tablet.
- iOS operating system Programmed in c, c++ and objective c.
- Derived from Mac OS X.
- iOS is a closed system, compared with the open source Android.
- In other words, you can't install any software (apps) on your iPhone or iPad that hasn't been approved by Apple personally.
- In IOS, there are four abstraction layers.
    - **The Core O.S Layer:** The Core O.S Layer manages the Virtual memory, threads, the file system, the network, inter process communication with the frameworks in the core O.S. layer.
    - **The Core Services Layer:** Core Services Layer contains the fundamental interfaces for iOS, for accessing files, network sockets and so on. These interfaces are mostly C – based.
    - **The Media Layer:** Media Layer allows you to create the best multimedia experience available on the mobile device with frameworks. It uses both C and Objective - C

- **The Cocoa Touch Layer:** Implementation of a graphical event-driven application in iOS with the frameworks is performed in the cocoa touch layer. This layer uses objective – C.

Operating System Compatibility:

- A mobile app developer creates an app specifically for the operating system in which it will run.
- For example, mobile apps for the iPad are supported by Apple's iOS, but not Google's Android. An Apple app can't run on an Android phone, and vice versa.
- Often, developers create a version for each.
- For example, a mobile app in the Apple Store might have a counterpart in Google Play.

iOS vs Android:

	iOS Apple	Android
Devices	iPhone, iPad, Apple Watch,Apple TV	Samsung, HTC, LG, & Moto phones, Android Wear Watch, Samsung Tablets, Smart TVs
Programming Language	Swift or Objective-C	Java or C++
Development Tools	Cocoa Touch	Android Software Development Kit
Integrated Development Environment (IDE)	Xcode	Android Studio, Android SDK

Mobile OS vs Traditional OS:

Sr. No.	Mobile OS	Traditional Os
1	A "Mobile OS" is designed to be used on a device with a small touch screen	A "Desktop OS" is designed to be used on a device with a larger screen and a keyboard or mouse.
2	Mobile OS i.e. Andriod is owned by Google	Traditional OS i.e Windows is owned by Microsoft.
3	Mobile OS you are restricted to only the things that OS manufacturer decided you'll have access to.	Traditional OS, you are given root or admin access to everything on the system
4	Mobile OS, developers are limited to available APIs that the OS provides (application program interface)	Traditional OS, you can simply install another programming language which will give you a new set of APIs to play with and will translate your code directly to machine code

Mobile apps vs Web apps:

Sr. No.	Points	Mobile apps	Web apps
1	**Immediacy**	A Mobile app or mobile app is essentially for one particular mobile device platform and it can be installed directly onto the particular devices itself. Users of native apps usually download them via app stores like the Apple App Store and the Google Play store.	A Web App is basically an Internet-enabled app that can be accessible via mobile device's Web browser or even desktop Web browser. They are no need to be downloaded onto mobile devices in order to access
2	**Compatibility**	Mobile app requires a separate version to be developed for each type of device.	A webapp can reach users across many different types of mobile devices
3	**Upgrade ability**	Mobile app requires the updates to be pushed to users, which then must be downloaded in order to update the app on each type of device	A webapp is much more dynamic than an app in terms of pure flexibility to update content. If you want to change the design or content of a mobile website you simply publish the edit once and the changes are immediately visible

4	**Find ability**	Mobile app visibilities are largely restricted to manufacturer app stores.	Mobile websites are much easier for users to find because their pages can be displayed in search results.