

# NINJA NOTES

Information Systems & Control 2026



**IT Systems & Business Processes**

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# IT Systems & Business Processes

## IT Systems

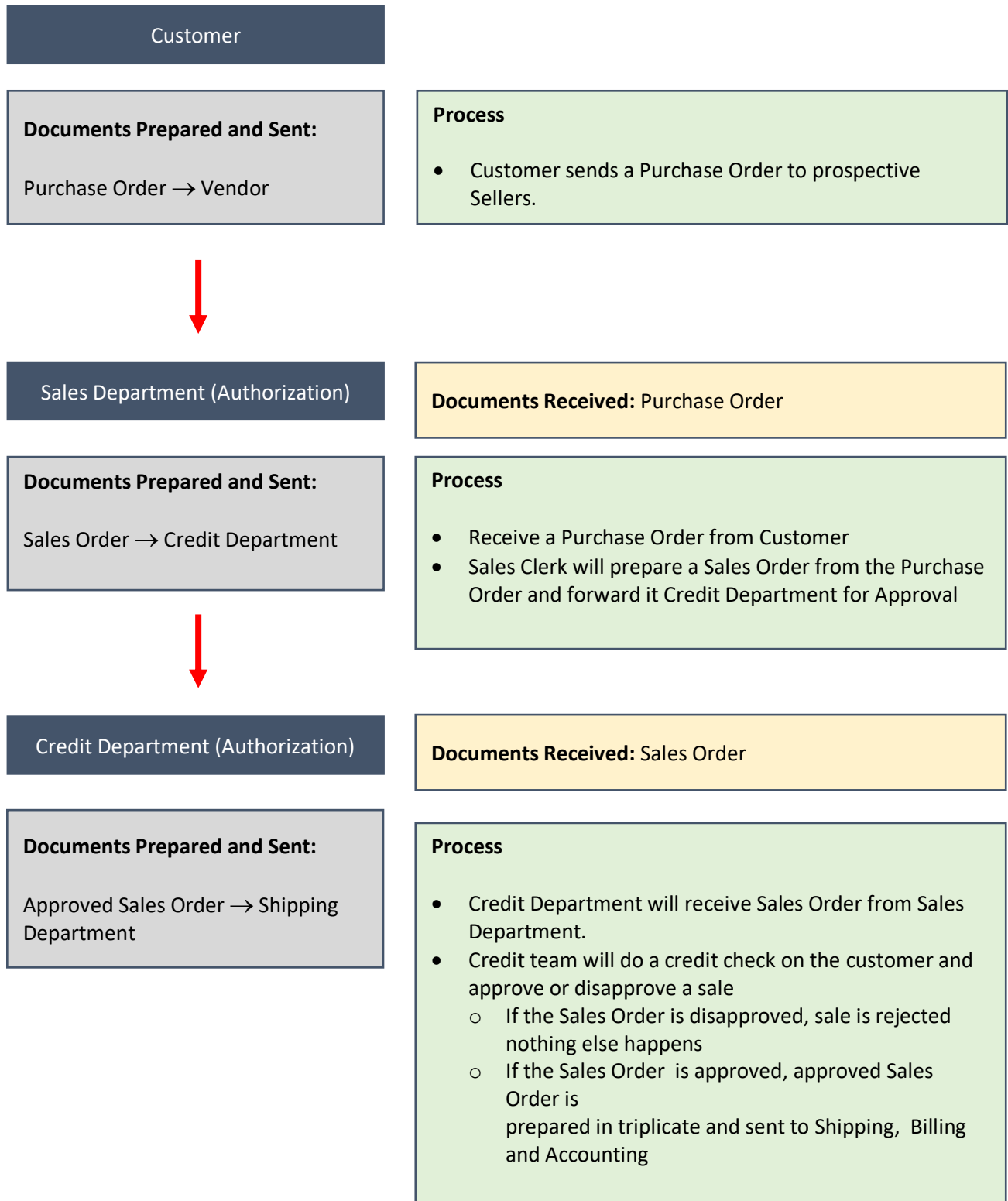
- Benefits of IT System
  - Consistently applying predefined business rules and performing complex calculations in processing large volumes of transactions or data
  - Enhancing the timeliness, availability, and accuracy of information
  - Facilitating the additional analysis of information
  - Enhancing the ability to monitor the performance of the entity's activities and compliance with its policies and procedures
  - Reducing the risk that controls will be circumvented, especially if controls over changes to the IT system are effective
- Risks of IT System
  - Overreliance on Information provided by the IT System
  - Unauthorized Access to Data
  - Unauthorized Changes to Computer Programs
  - Failure to make necessary changes to Computer Programs
  - Inappropriate Manual Intervention
  - The Potential Loss of Data
  - Greater need for Skilled and Experienced IT Personnel
  - Viruses and Trojan Horses
  - Sabotage
- Types of IT System
  - Transaction Processing Systems (TPS)
    - Transaction Processing Systems are computerized systems that are used to process day-to-day business transactions, such as sales orders, payroll, and shipping

- Management Information Systems (MIS)
  - Management Information Systems (MIS) are computerized systems that provide managers with the information they need to make informed decisions.
- Decision Support Systems (DSS)
  - Decision Support Systems (DSS) are computerized systems that are designed to help managers and other decision-makers solve problems and make decisions by providing access to relevant data and analysis tools
- Executive Support Systems (ESS)
  - Executive Support Systems (ESS) are computerized systems that are designed to provide top executives with the information they need to make strategic decisions
- Expert Systems
  - Expert Systems are computerized systems that are designed to mimic the decision-making abilities of a human expert in a specific field.
- Office Automation Systems
  - Office Automation Systems are computerized systems that are designed to improve the efficiency and productivity of office work.
- Executive Information Systems (EIS)
  - An Executive Information System (EIS) is a type of management information system that is designed specifically for use by top-level executives in an organization.
- Customer Relationship Management (CRM)
  - A Customer Relationship Management (CRM) System is a software tool that helps businesses manage their interactions with customers and prospects. It is used to manage customer data, sales, marketing, and customer service activities.
- Supply Chain Management (SCM)
  - A Supply Chain Management (SCM) System is a software tool that helps businesses manage and optimize their supply chain activities. It is used to plan, coordinate, and control the flow of goods and services from suppliers to customers.

- Enterprise Resource Planning (ERP)
  - ERP stands for Enterprise Resource Planning. It is a type of software that allows a company to manage and automate various business processes, such as accounting, procurement, inventory management, and customer relationship management.
  - The goal of ERP is to integrate and streamline all aspects of a business's operations in order to improve efficiency and decision-making. Some examples of ERP software include SAP, Oracle, and Microsoft Dynamics.
- Enterprise Performance Management (EPM)
  - EPM stands for Enterprise Performance Management. It is a set of practices and technologies that organizations use to monitor and manage their performance.

# Business Processes & Transaction Cycles

- Revenue Cycle



**Shipping Department (Custody)**

**Documents Prepared and Sent:**

- Inventory → Client
- Bill of Lading → Client & Billing Department



**Billing Department  
(Recordkeeping)**

**Documents Prepared and Sent:**

- Invoice → Client
- Update Sales Journal, Sales Summary and Accounts Receivable Master File



**Accounting Department**

**Documents Prepared and Sent:**

Records sales in General Ledger

**Documents Received:** Approved Sales Order

**Process**

- Shipping Team receives the Approved Sales Order and will ship Inventory to the Client
- Bill of Lading prepared by Shipping team and is sent to Client & Billing Department.

**Documents Received:** Approved Sales Order & Bill of Lading

**Process**

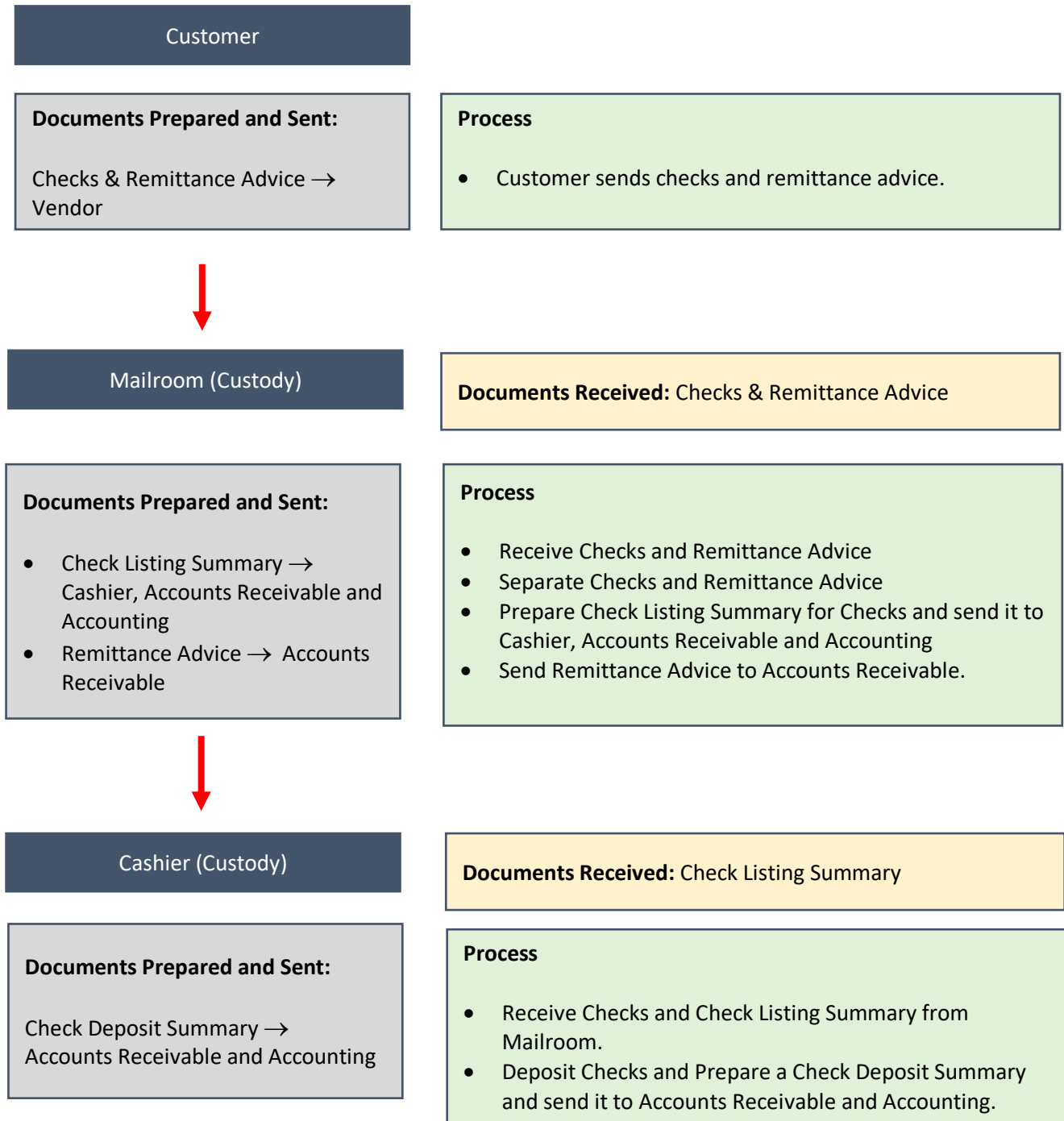
- Billing Team receives Approved Sales Order & Bill of Lading and will prepare Invoice and send it to the Client.
- Billing Team will Prepare Sales Journal, Sales Summary and Update Accounts Receivable Master File

**Documents Received:** Approved Sales Order, Inventory Report and Approved Write-Off

**Process**

- Accounting Team records sales in General Ledger.

- Cash Receipts Cycle



Accounts Receivable Department  
(Recordkeeping)

**Documents Prepared and Sent:**

- Prepare a Cash Deposit Summary.
- Update Accounts Receivable Master File

**Documents Received:** Remittance Advice, Check Listing Summary and Check Deposit Summary

**Process:**

- Receive Remittance Advice, Check Listing Summary, Check Deposit Summary and Prepare a Cash Deposit Summary.
- Update Accounts Receivable Master File



Accounting Department  
(Recordkeeping)

**Documents Prepared and Sent:**

Update General Ledger

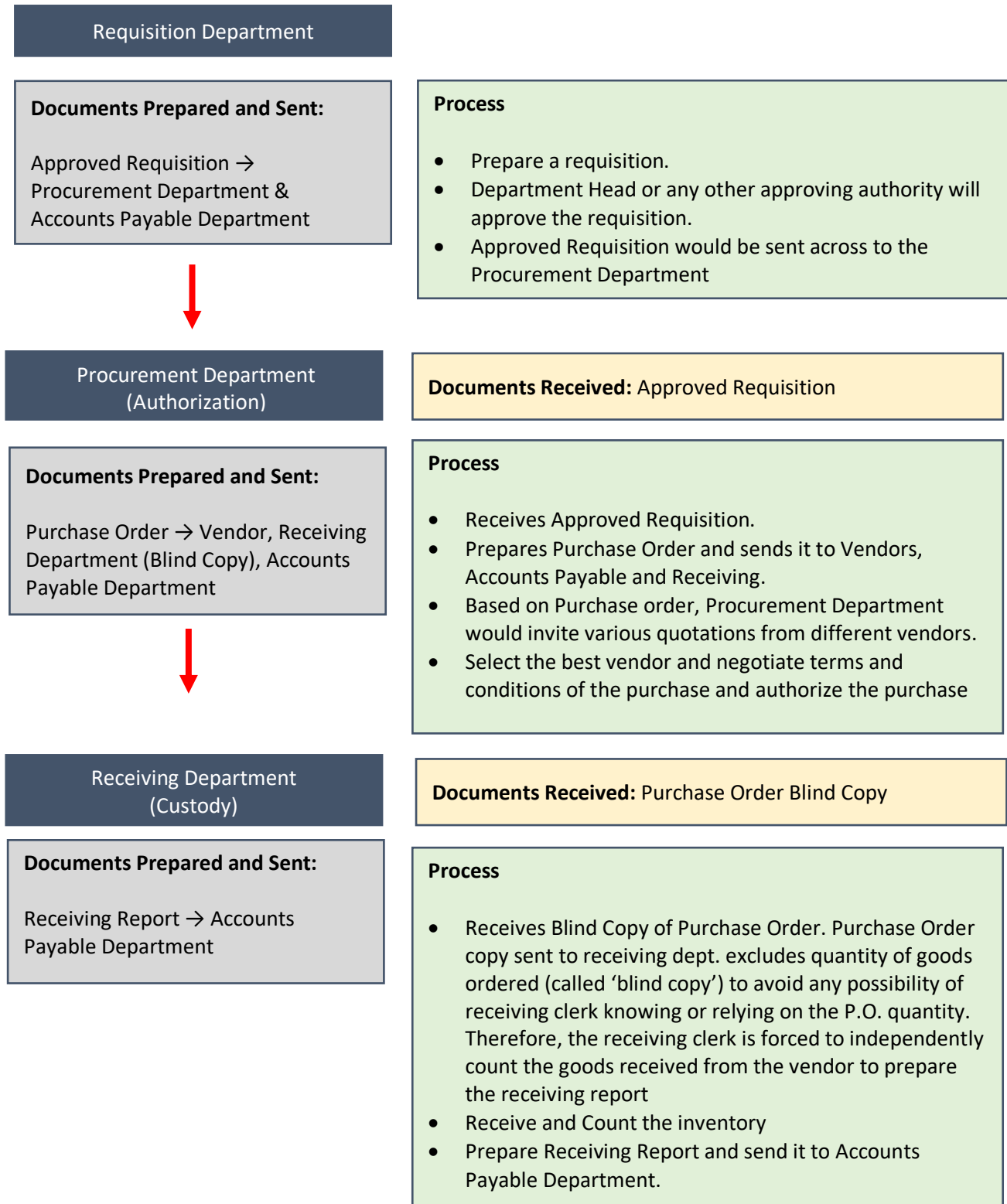
**Documents Received:** Check Listing Summary, Check Deposit Summary and Cash Deposit Summary

**Process**

- Accounting Team updates General Ledger.

- Role of AIS in Sales, Receivables & Cash Receipts Cycle
  - AIS allows real-time access to inventory records for order confirmation.
  - AIS automatically evaluates a customer's credit history for purchase approvals.
  - AIS records sales invoices in the database and digitally communicates with the warehouse for inventory release orders.
  - AIS generates and sends packing slips electronically.
  - AIS provides a terminal for the Shipping Department to input shipping notices.
  - AIS updates various records, including customer credit, inventory levels, and sales invoice records upon shipment.
  - AIS offers a terminal for the cash receipts clerk to record incoming payments.
  - AIS closes sales invoices and updates customer payment records.
  - AIS posts transactions to general ledger accounts.
  - AIS generates management reports for financial insights and decision-making.

- Expenditure Cycle



Accounts Payable Department  
(Recordkeeping)

**Documents Prepared and Sent:**

- Update Purchase Journal, Purchase Summary and Accounts Payable Master.
- Voucher Package → Treasury



Treasury Department  
(Custody)

**Documents Prepared and Sent:**

Checks or Remittance Advice → Vendor



Accounting Department  
(Recordkeeping)

**Documents Prepared and Sent:**

Update General Ledger

**Documents Received:** Approved Requisition, Purchase Order, Receiving Report, & Invoice

**Process**

- Receive Voucher Package which comprises of
  - Approved Requisition (What was requested)
  - Purchase Order (What was ordered)
  - Receiving Report (What was received)
  - Invoice (What was billed).
- Perform the 3-Way Match; Approve the voucher for payment and send approved voucher to Treasury Team.
- Update Purchase Journal, Purchase Summary and Accounts Payable Master.

**Documents Received:** Voucher Package

**Process**

- Receive Approved Voucher Package, Pay the Voucher Package and Stamp it paid to avoid double payment.
- Send Checks or Remittance Advice to Vendor Payable Master.

**Process**

- Accounting Team updates General Ledger.

- Role of AIS in Expenditure Cycle
  - AIS verifies purchase requests against the approved list and provides vendor details for selection.
  - AIS creates and sends Purchase Orders digitally to vendors, streamlining the process.
  - AIS provides a terminal for the receiving department to input PO numbers and received quantities, updating records accordingly.
  - AIS allows accounts payable clerks to input supplier invoices, linking them to PO and receiving records.
  - AIS automates invoice approval and payment date setting to ensure timely payments.
  - AIS handles check printing, distribution, payment recording, invoice closure, and general ledger updates for accurate financial records.

- Inventory Cycle

Procurement Department (Authorization)

- Receives Approved Requisition.
- Prepares Purchase Order and sends it to Vendors,
- Based on Purchase order, Procurement Department would invite various quotations from different vendors.
- Select the best vendor and negotiate terms and conditions of the purchase and authorize the purchase

Receiving Department (Custody)

- Receive and Count the inventory
- Prepare Receiving Report and send it to Accounts Payable Department.

Warehousing Department (Custody)

- Holds custody of the verified quantity of the Inventory

Shipping Department (Custody)

- Responsible for shipping Finished Goods Inventory to the Customer

Discussed in Expenditure Cycle

Discussed in Revenue Cycle

- Role of AIS in Inventory Cycle
  - AIS receives work orders for production runs, initiating the manufacturing process.
  - AIS inputs new Production Orders into the Work-in-Progress subsidiary ledger, tracking ongoing production activities.
  - AIS receives and processes documents such as Material Requisitions and Labor Tickets, updating the WIP account to track labor and material costs.
  - AIS monitors standard production costs for labor, materials, and overhead, recording any variances between standard and actual costs for optimization.
  - AIS closes the WIP account upon receiving the final ticket, ensuring accurate inventory and cost allocation.
  - AIS prepares journal entries reflecting changes in the WIP account and updates the General Ledger for accurate financial records and insights into production costs.

- Personnel & Payroll Cycle

Payroll Department (Recordkeeping)

**Documents Prepared and Sent:**

- Update Employee records & Payroll Journal
- Prepare Payroll Summary
- Unsigned Checks → Treasury



Treasury Department (Custody)

**Documents Prepared and Sent:**

Signed Checks → Employees



Accounting Department  
(Recordkeeping)

**Documents Prepared and Sent:**

Update General Ledger

**Documents Received:** Pay Rate Authorization & Approved Time Record

**Process**

- Receive Pay rate authorization from HR Department
- Receive Approved Time Record from Production Department
- Prepare Check and send it to Treasury
- Update Employee records & Payroll Journal
- Prepare Payroll Summary

**Documents Received:** Unsigned Checks

**Process**

- Sign Checks and hand, it to Employees

**Process**

- Accounting Team updates General Ledger.

- Role of AIS in Personnel & Payroll Cycle
  - AIS integrates seamlessly with the Human Resource Management System, enabling real-time updates to employment data such as benefits, pay rates, and employment status.
  - AIS collaborates with operational systems for real-time entry of employee timekeeping data, ensuring accurate tracking of work hours.
  - AIS allocates labor costs to specific job costs, accumulating direct and indirect labor expenses over defined work periods and generating payroll registers for streamlined payment processing.
  - AIS creates digital journal entries for payroll transactions, attaching original documents for reference, and updates the General Ledger automatically for accurate financial records.
  
- Role of AIS in Property, Plant, & Equipment Cycle
  - AIS automatically updates the General Ledger and generates Journal Entries for Fixed Assets, ensuring accurate financial records.
  - AIS creates and maintains depreciation schedules for each fixed asset, tracking depreciation expenses over time.
  - AIS calculates depreciation, accumulated depreciation, and book value of fixed assets at the end of each period, updating general ledger accounts accordingly.
  - AIS records asset disposals and calculates gains or losses, preparing journal entries and adjusting the general ledger to accurately reflect the financial impact of disposals.
  
- Documentation of Business Processes
  - Flowcharting
    - Flowcharting is frequently used to document an organization's information system and related control procedures.
    - It visually depicts the flow of transactions through the process from initiation to the storage of data. Flowcharts use specific shapes to represent specific physical media used for files and processes
  - Narratives
    - Narratives are textual documentation of a business process.
    - It describes and details each step of a business process, including policies, personnel, controls, documents, etc. Narratives are essentially written walk-throughs of an entire business process.

- Data Flow Diagrams
  - Data Flow Diagrams, like Flow Charts, present a birds-eye view of the entire business process along with risk and controls. However, unlike flowcharts, data flow diagrams use minimal shapes and symbols to represent a process.
  - The Data Flow Diagram depicts the flow of data as it passes through the organization.
- Business Process Improvement
  - Understand the Business Process Model
  - Identify Key Performance Indicators (KPIs)
  - Analyze the Process Model
  - Identify Improvement Opportunities
  - Prioritize improvements
  - Develop an Action Plan
  - Implement Improvements
  - Evaluate and Refine