

NINJA NOTES

Information Systems & Control 2026



IT Systems & Business Processes

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IT Systems & Business Processes

IT Systems

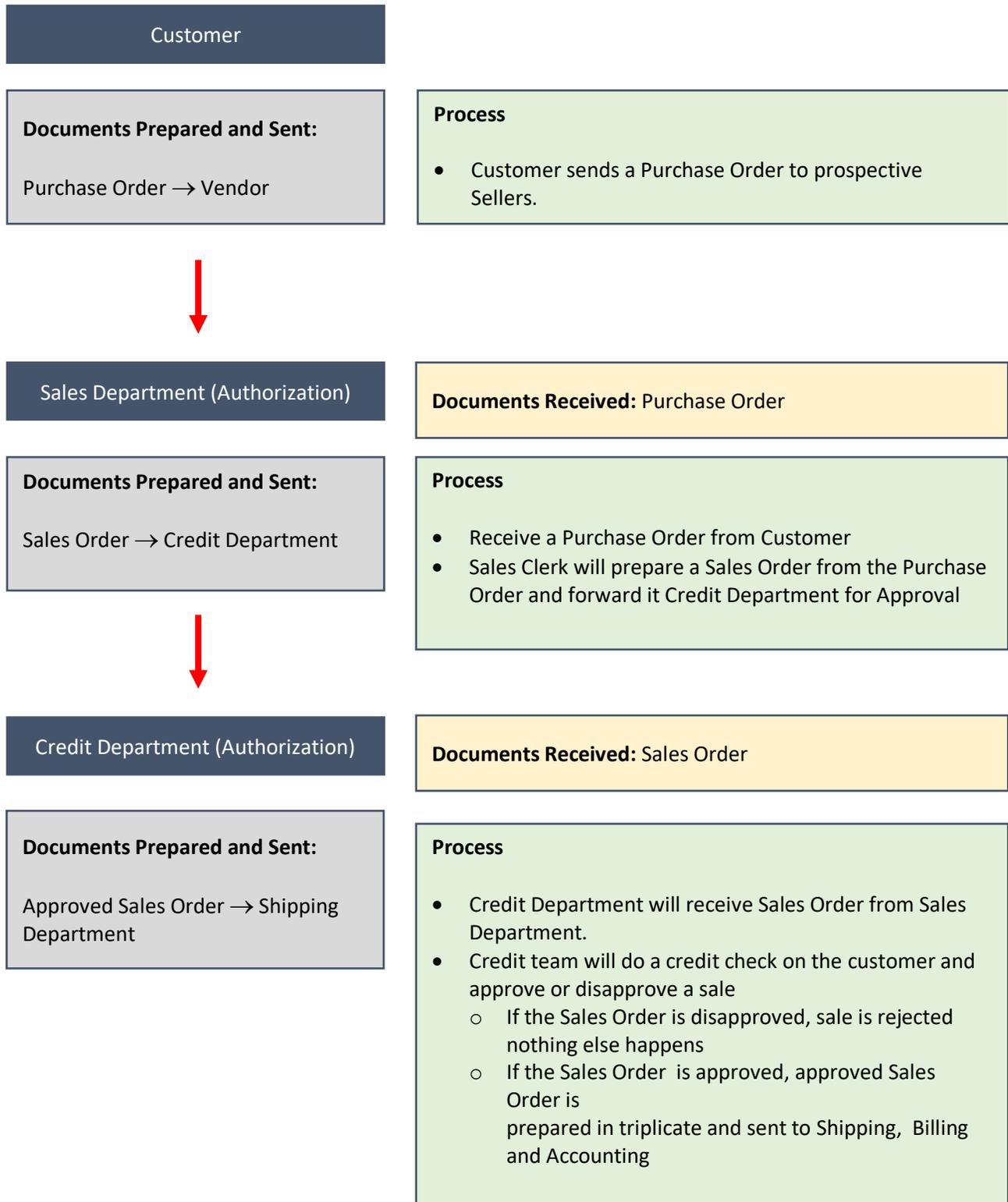
- Benefits of IT System
 - Consistently applying predefined business rules and performing complex calculations in processing large volumes of transactions or data
 - Enhancing the timeliness, availability, and accuracy of information
 - Facilitating the additional analysis of information
 - Enhancing 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

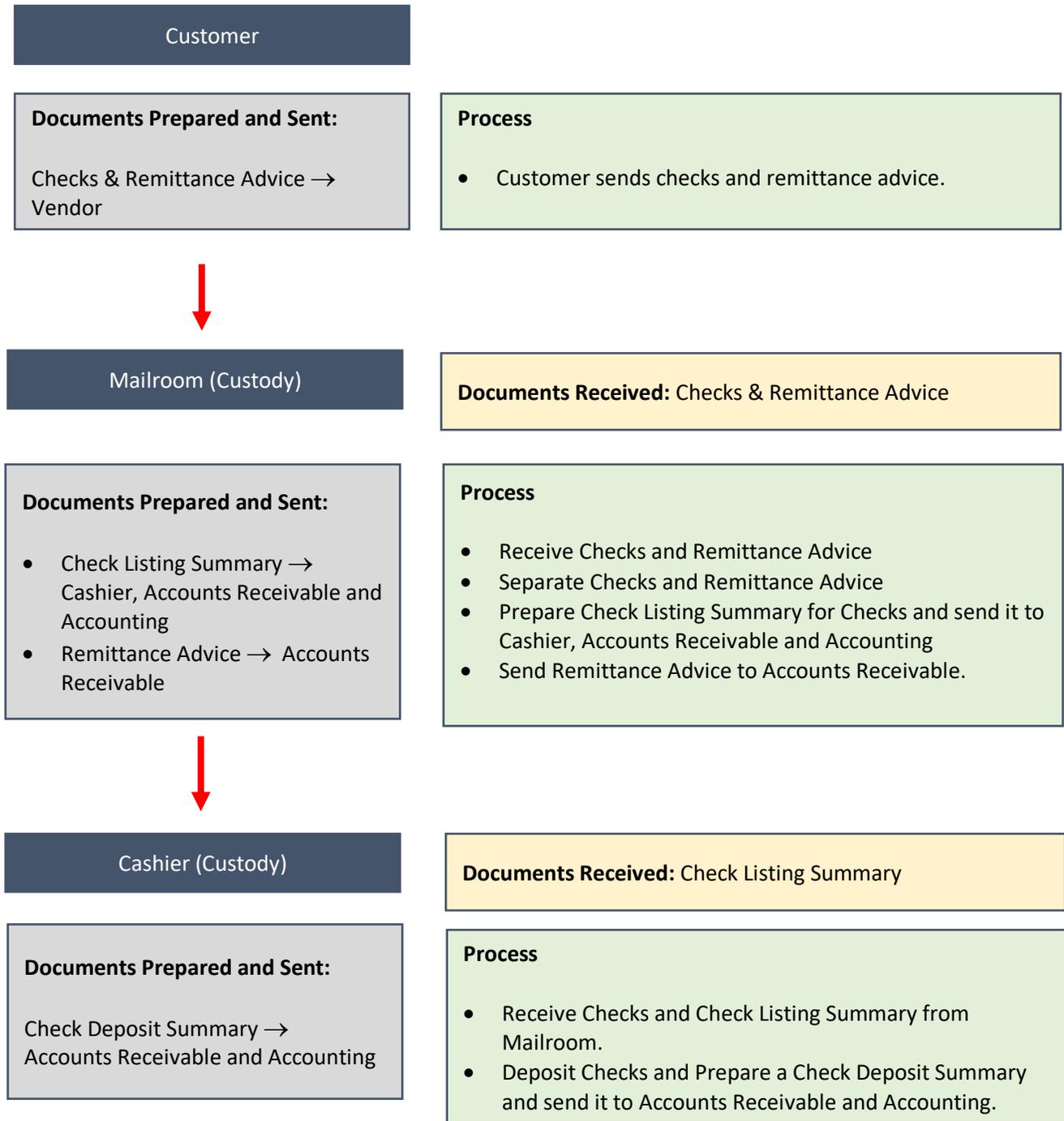
- Billing Team receives Approved Sales Order & Bill of Lading and will prepare Invoice and send it to the Client.
- Billing Team will Prepare Sales Journal, Sales Summary and Update Accounts Receivable Master File

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)

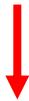
Documents Prepared and Sent:

- 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

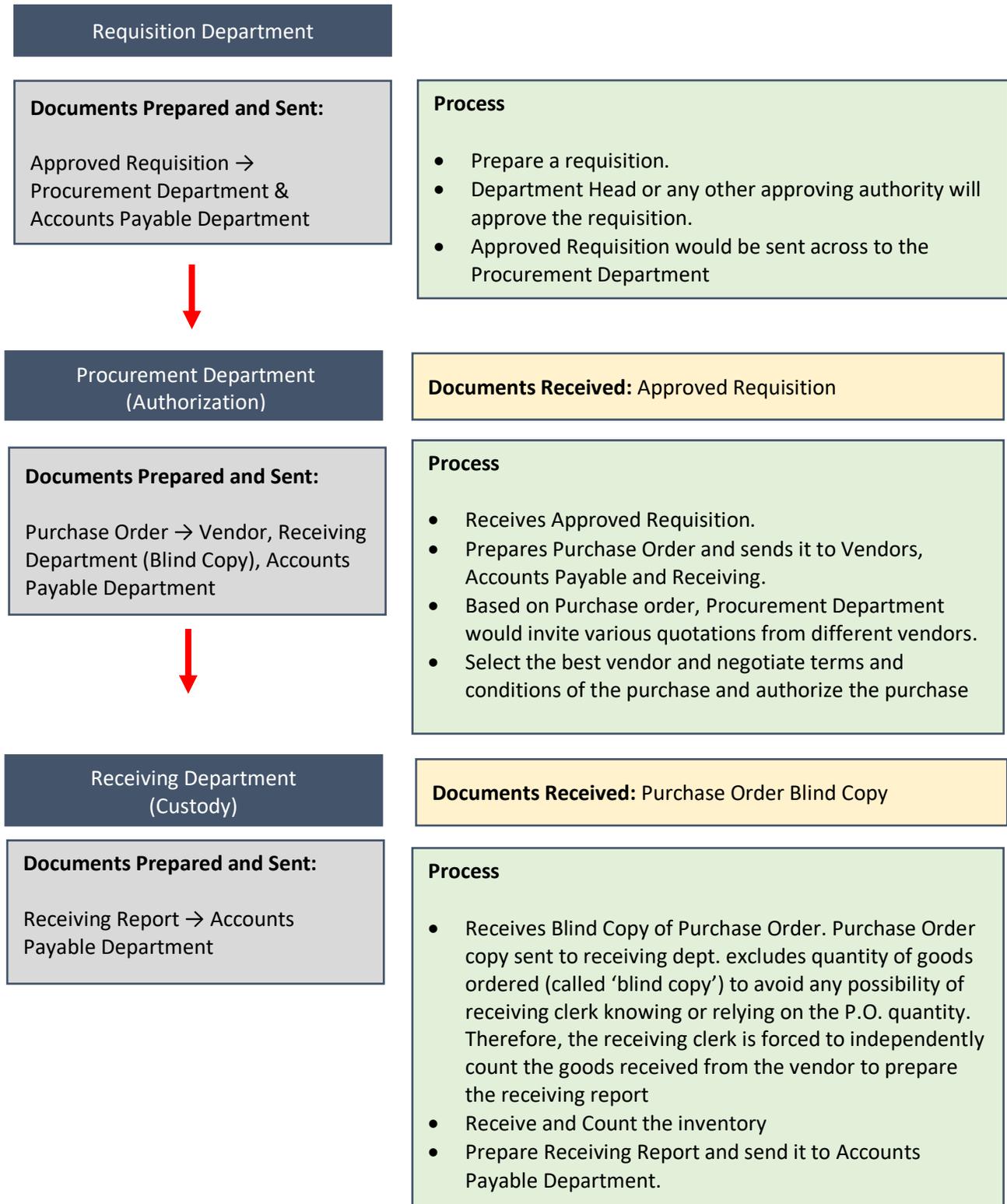
Documents Received: Check Listing Summary, Check Deposit Summary and Cash Deposit Summary

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