Unit 5
ERP MODULES
ERP Packages contains many modules

1.FINANCE

- Concept of Information technologies means providing:
  - Right information
  - Right time
  - Right people
  - Can make critical difference to the organization
- Financial data provides key information.
- The finance module of most ERP system will have the following sub-system
  - **Financial Accounting**
    - (General Ledger, Accounts Receivables/ Payable, Fixed Assets Accounting, Legal consolidation)
  - **Investment Management**
    - (Investment planning, Budgeting, controlling, Depreciation, Forecast Simulation Calculation)
  - **Controlling**
    - (Overhead cost controlling, Activity based costing Product cost Accounting Profitability analysis)
  - **Treasury**
    - (Cash Management, Treasury Management, Market Risk Management, Funds Management)
  - **Enterprise Controlling**
    - (Executive Information System (EIS), Business Planning and Budgeting, Profit centre Accounting)

- **Financial Accounting (Objective) :**
  - Integration of financial information essential for strategic decision-making
  - Centrally track financial accounting data within international framework.
    - General Ledger :
      - Essential for financial accounting and decision making
      - Serves as a central pool of financial data and in accounting area, Origin of a transaction can be traced,
      - Supports all the functional needs in financial accounting.
      - Typical General Ledger contains i.e. summary information of other
      - components:
        - Purchasing (Quantity and value)
        - Sales (order and bill)
        - Vendor (Payable)
        - Customer (Receivables)
        - Fixed assets
        - Employees (salary and wages)

- Accounts Receivables/ Payable:
  - These subsystems are integrated with all other subsystems where financial data originates: both with General Ledger ,Sales and Distribution, Material Management.
  - Transaction performed automatically
  - Accounts Receivable and Payable functions include:
    - Internet integration
    - Document management
    - Important support for EDI processing
    - Enterprise-wide credit management
    - payment automation
- Asset Accounting:
  - Serves as a sub ledger to the General Ledger
  - Manages company's fix assets and provides detail info abt assets related transaction.
  - Integration with plant management
  - Management of leased assets and lease under construction
- Legal Consolidation:
  - serves as a tool to make a consolidated financial statement with operational data
  - Legal consolidation is closely integrated with Financial Accounting system permit direct data transfer from individual statement into consolidated report.
  - Ease the workload and reduces data entry error
  - Allows multiple view of ur consolidation data.
  - Generate reports about legal entries and segments of ur business.

- **Investment Management**
  - Investment planning – Where to invest, what is the expected profit of each ventures. Which department to need more investment?
  - Budgeting – Financial layout of new or existing project – Availability and cost of finance
  - Controlling – The expenses, the overheads
  - Depreciation - Budgeted balance sheets and cost planning are always on current values.
  - Forecast – Speculation and forecast of market trend. Rising or declining?
  - Simulation Calculation: Making a mathematical model and deriving alternatives to choose from.

- **Controlling...**
  - Gathers functions for Internal cost accounting
  - Versatile information system i.e. Generate reports
  - Overhead Cost Controlling:
    - Focus on monitoring n allocation of overhead
  - Cost Centre Accounting:
    - Analyses where overhead occurs
  - Overhead Orders:
    - Collects and analysis cost based on individual internal measures

        - Monitors and automatically check budgets assign to each measures
    - Activity Based Costing:
        - Goals of the entire enterprise should come before the goals of individual activity
    - Product Cost Controlling:
        - determine cost of product or services .Use to determines the lowest price limit.
    - Cost Object Controlling:
        - Helps to monitor manufacturing orders
        - Integration with logistics, provides actual cost of the object costs
        - Determine n analysis Variance betw actual manufacturing cost and plan cost
    - Profitability analysis:
        - Examines the sources of returns.
        - Revenues are assigned according to market segment

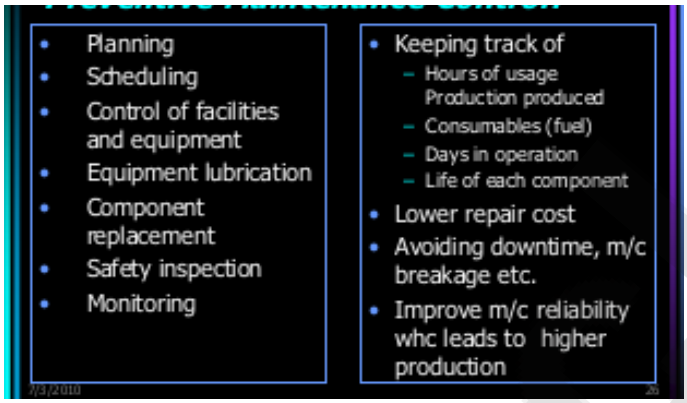
- **Treasury**
    - Managing long ,short, medium payment flow
    - Managing Risk factor as well Planning financial transaction.
    - Cash Management:
        - Analysis financial transaction for given period
        - Manages cash inflow and outflow
        - Distinction is made according to time period (short medium long)
        - Information is available to make cash management decision and for analyzing purpose.
    - Treasury Management:
        - Current liquidity, Currency, Risk position
        - Conditions prevailing on the money and capital market
        - Consider all those before taking decision
        - Securities and loans
    - Market Risk Management:
        - Ensures competitiveness
        - Complex feed back loop: from data collection, risk management, analysis and simulation
        - Assessing the interest rates
        - Assessing the currency rates
        - Simulate market data – “what if” analysis
    - Funds Management:
        - From budgeting to payment on one side and
        - From Billing to actual receiving on the other
        - Enables to control funds commitments and determine the budget utility.
        - Helps to identify budget bottleneck
- **Enterprise Controlling**
    - Compromise to optimize share holder value, for growth and investment.
    - Modules includes :
    - Executive Information System:
        - Provides overview of critical parameters
        - Gets both internal and external data
        - Drill-Down reporting to evaluated data

- Business Planning and Budgeting:
  - Business targets such as Return on investment
  - Central investment planning, budget release and tracking

- Profit Centre Accounting:
  - Analysis profit
  - Possible to analysis selected balanced sheet items and use for calculation of ratio such as ROI.

2.PLANT MAINTENANCE

- **Preventive Maintenance Control:**



- **Equipment tracking:**

  - Equipment is an asset to be used, monitored and protected
  - History of equipment: acquisition to write off
  - Operational dependencies (special features, imported spare parts, their cost and expected life ,Guarantee period, Next service due)
  - Information (model and serial no) for each equipment to be made available.
  - Provide detail information to technical specialist.

- **Component Tracking:**

  - Components are typically sub-set of large equipment.
  - Enable to identify chronic repair problem of component – replacement or repair
  - Do not wait for components to fail, replace it before that
  - Reduce downtime
  - Also include repair/exchange history and component service life.

- **Plant Maintenance Calibration Tracking :**

  - Allows organization to leverage their investment in Plant Maintenance module by providing for tracking of equipment calibration in support of ISO 9000 requirement.

- **Plant Maintenance Warranty Claim Tracking :**

    - Administrative system designed to provide control of all items covered by manufacturer and vendor warranty.
    - Recover imbursement to which they are entitled.
    - Type and length of warranty – elapsed time ,operating unit, generate Complete information regarding warranty service provider.

3.QUALITY MAINTENANCE

- **Introduction**
    - ISO Standards defines:
        - Functions of QM
        - Elements of QMS
    - In Production, Quality Assurance
        - No longer just “Inspection” and “Elimination”
        - But also the production process becomes the focus of attention.
    - Quality spreads to the entire loop: Product
        - development – procurement of sales and
        - distribution – (entire usage phase)

- **CAQ and CIQ:**
    - CAQ : Computer Aided Quality Management
        - Isolated, cnt carry out comprehensive tasks of QMS
    - CIQ: Computer – Integrated Quality Management
        - More appropriate
            - Supports quality management in procurement,
            - product verification, quality documentation,
            - processing of the problem
            - Module do not direct interact with other modules

- The Q**uality Management Module** fulfills the following **functions**:
    - **Quality Planning** : Management for basic data for quality planning and Inspection planning, Material Specification
    - **Quality Inspection:** Trigger inspections, Inspection processing with inspection plan selection and sample calculation,
        - Print shop papers for sampling and inspection.
        - Records results and defects.
        - Makes the usage decision and trigger follow up action
    - **Quality Control:**
        - Dynamic sample determination on the basis of Quality level history.
        - Application of statistical process control techniques using quality control charts
        - Quality scores for inspection lots,
        - Quality notification for processing internal or external problems and initiating corrective action to correct the problems
        - Inspection of lot processing

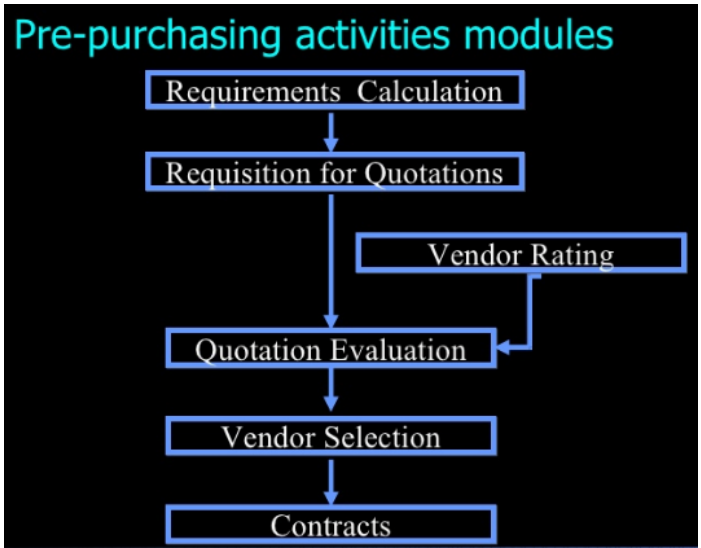
        - QMIS (Quality Management Information System) for inspection and inspection results and quality notification

- The **Quality Management Module** is integrated with the master data and processes of the following **applications.**
    - Material Management:
        - Purchasing, inventory management, warehouse management, Material requirement planning
    - Production :
        - Work scheduling, shop floor control
    - Sales and Distribution:
        - Delivery, creation of quality certificates

4.MATERIALS MANAGEMENT

- Introduction:
    - The Material Management Module optimizes:
        - All purchasing process with work-flow driven processing functions
        - Enables automated supplier evaluation,
        - Lowers procurement and warehousing costs
        - Integrates invoice verification
        - In short decides - When to buy, What to buy and How much to buy!
- The main Modules of Material Management Module are: **Pre-purchasing Activities, Purchasing, Vendor Evaluation, Inventory Management, Invoice Verifications and Material Inspection.**

- **Pre-Purchasing Activities :**
    - Maintain service master database.
    - Service specification which include service with item and item with material .
    - Manual entry effort is reduced
    - 2 ways of entering service specification
        - PLANNED
            - service whose precise nature n intended scope is known at the beginning of the project.
            - Price and quantities are both stipulated
        - UNPLANNED
            - Services which cannot be initially specified in detail
            - No description
            - Entered in the form of money value limit



- **Purchasing :**
  - Important component of Material Management.
  - Integrated with other modules and communicates with them for constant flow of data
  - Support all phase:
    - Material planning and control, purchasing, goods receiving
    - Inventory management
    - Invoice management
  - Follows task like
    - Procurement of material, n service ,determine source of supply , planning n control of material, monitoring delivery n payment of vendors

- **Vendor Evaluation:**
  - Integrated into MM
  - Information like delivery dates ,prices and quantity are taken from purchase order
  - Also used data of QM
  - In procurement of material:
    - Select suppler according to existing supply relationship
    - Provide with proper information on prices n terms of payment and delivery
    - Evaluate vendors
  - In procurement of service:
    - Check reliability of vendors
    - Check vendors performance

- **Inventory Management:**
  - Allows to manage stocks
  - Obtain overview of current stock
  - Shows all entries of stocks like
    - warehouse,
    - stock orders but not delivered,
    - reserved for production or for customers,
  - quality and quantity inspection and monitored of stock
  - Stocks frm vendors and from customers managed separately
  - Stocks are managed by values and quantity basis
  - Prerequisite cost accounting
  - With every goods movement following are updated
    - Stock value for inventory Management
    - Account assignment for cost accounting
    - G/L account
  - Both quantity n values are updated automatically with the goods movement
  - Goods movement includes
    - Internal movement (goods from production,stock transfer)

        - External movement (goods from sales order)

    - Inventory management includes inventory methods:
        - Periodic Inventory
        - Continuous Inventory
        - Inventory Sampling
        - Cycle Counting

- **<u>Invoice Verification and Material Inspection:</u>**
    - Link between MM and financial management, controlling and asset accounting components
    - It serves the following propose:
        - Completes the material procurement
        - Allows invoice that do not originate in material procurement
        - Allows credit memos
    - Do not handle payment or invoice
    - Information is passed on to other department
    - Invoice contains many information which has to be posted i.e. enter into the system.
    - Refers to current transaction, purchase transaction
    - posting invoice completes invoice verification
    - System now contains data necessary for invoice to be paid.
    - Accounting department retrieve this data for appropriated payment