➜ What is SAP?

- SAP, or Systems Applications and Products, is a widely used enterprise resource planning (ERP) software. SAP creates a centralized system for businesses that enables every department to access and share common data to create a better <u>work environment</u> for every employee in the company. SAP is the most-used ERP software on the market and contains hundreds of fully integrated modules that cover nearly every aspect of business management.
- Incredibly large, extensive software packages used to manage a Company's business processes.
- Standard software packages that must be configured to meet the needs of a company
- Database programs with the following functions:
  - Input
  - Storage/Retrieval
  - Manipulation
  - Output

➜ SAP Modules can be categorized into

- SAP Functional Modules
  - SAP MM – MM stands for material management
  - SAP PP – where PP stands for production planning
  - SAP SD – where SD stands for sales and distribution
  - SAP CRM – CRM stands for customer relationship management
  - SAP EC Module – where EC stands for Enterprise Controlling
  - SAP TR Module – where TR stands for Treasury
  - SAP IM Module – where IM stands for Investment Management
  - SAP IS – where IS stands for Industry Specific Solution

NOTE : there are total of 64 SAP modules excluding technical modules

- SAP Technical Modules
  - SAP ABAP - ABAP (Advanced Business Application Programming) is the default programming language for SAP applications. You can also use Java to code in SAP. Learn more about SAP ABAP
  - SAP Basis - SAP Basis is a set of programs and tools that act as an interface with Database, Operating system, communication protocols and other SAP modules like FI,HCM, SD etc. Learn more about SAP Basis

➜ Advantages of SAP

- Integration: SAP offers comprehensive integration across various business functions, providing a unified platform for managing enterprise resources efficiently.
- Streamlined Processes: SAP automates repetitive tasks, reduces manual data entry, and streamlines business processes, leading to increased efficiency and productivity.

- Real-time Insights: With SAP's reporting and analytics capabilities, organizations gain access to real-time data and insights, enabling informed decision-making and strategic planning.
- Scalability: SAP solutions are scalable and can accommodate the growth and evolving needs of organizations, making them suitable for both small businesses and large enterprises.
- Global Reach: SAP supports multi-country, multi-language, and multi-currency operations, making it ideal for global organizations with diverse business requirements.
- Compliance and Security: SAP solutions adhere to industry standards and regulations, ensuring compliance with legal and regulatory requirements. Additionally, SAP offers robust security features to protect sensitive data and mitigate cybersecurity risks.
- Enhanced Customer Experience: SAP enables organizations to deliver personalized experiences to customers by centralizing customer data, facilitating targeted marketing campaigns, and providing efficient customer service.
- Innovation and Future-proofing: SAP invests heavily in research and development, continually innovating and introducing new features and functionalities to stay ahead of industry trends and technologies.

➔ Disadvantages of SAP:

- Complexity: SAP implementations can be complex and time-consuming, requiring significant resources, expertise, and careful planning. Complexity may lead to delays, cost overruns, and resistance from stakeholders.
- Cost: The upfront costs associated with SAP licensing, implementation, customization, and maintenance can be substantial, particularly for small and mid-sized businesses with limited budgets.
- Customization Challenges: While SAP offers extensive customization capabilities, excessive customization can increase complexity, make upgrades difficult, and lead to compatibility issues with future releases.
- Dependency on Consultants: Organizations often rely on external consultants or SAP partners for implementation, customization, and support services, leading to dependency and additional costs.
- User Adoption: SAP systems may be perceived as difficult to use by some users, requiring comprehensive training and change management initiatives to ensure widespread adoption and maximize ROI.
- Upgrade Issues: Upgrading to newer versions of SAP software can be challenging and disruptive, requiring thorough testing, data migration, and reconfiguration to ensure compatibility and minimize downtime.
- Performance Concerns: Poorly optimized SAP systems may experience performance issues, such as slow response times, system crashes, and downtime, impacting productivity and user satisfaction.
- Vendor Lock-in: Organizations that heavily invest in SAP solutions may become locked into the SAP ecosystem, making it difficult and costly to switch to alternative vendors or platforms in the future.

➔ Difference in SAP and ERP

S.No	ERP	SAP
1.	ERP are software solutions that helps organizations to manage their business processes.	SAP is multinational company that sells ERP software solutions to business.
2.	It is a centralized system that streamline all processes.	It groups process into modules and interact with different business aspects.
3.	ERP is termed as super set of SAP.	SAP are largest provider of ERP software systems.
4.	ERP is a web-based application.	SAP is developer that provides variety of options depending upon requirements.
5.	ERP systems are more focused about the organization growth.	SAP takes the care of both customers and organization while developing software solutions.
6.	Examples – NetSuite ERP, Scoro, AcTouch, etc.	Examples – SAP Business Intelligence, SAP Enterprise Buyer Professional, SAP Internet Transaction Server, etc.

➔ Evolution of SAP
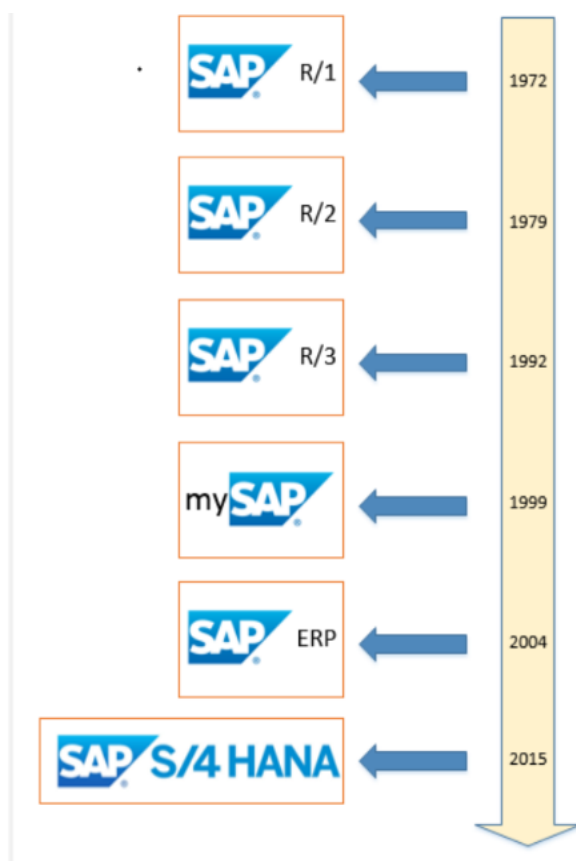
- SAP is basically a German software founded in the year 1972, by five IBM engineers.
- SAP R/1 and R/2 was the first product which was released, 'R' refers for Real-time data processing.
- SAP R/2 – used to run on mainframe
- SAP R/3 – Introduction of 3-tier architecture i.e., presentation layer, application layer and database layer.
- SAP ecc ERP – Became part of a larger ERP family i.e., SAP Business Suite. It includes SAP ECC that is the successor of SAP R/3
- SAP S/4 HANA – Back-end application layers run on SAP HANA database while the front-end application runs on SAP Fiori.