INTRODUCTION

Systems are created to solve problems. One can think of the systems approach as an organized way of dealing with a problem. In this dynamic world, The subject System Analysis and Design, mainly deals with the software development activities.

OBJECTIVES

The main objectives are:

- understand a system
- understand the different phases of system developments life cycle
- know the components of system analysis
- know the components of system designing

Defining A System

A collection of components that work together to realize some objective forms a system. Basically there are three major components in every system, namely input, processing and output. In a system the different components are connected with each other and they are interdependent. For example, Human body represents a complete natural system. We are also bound by many national systems such as political system, economic system, educational system and so forth. The objective of the system demand that some output is produced as a result of processing the suitable inputs.

SYSTEM LIFE CYCLE

System life cycle is an organisational process of developing and maintaining systems. It helps in establishing a system project plan, because it gives overall list of processes and sub-processes required developing a system. System development life cycle means combination of
various activities. In other words we can say that various activities put together are referred as system development life cycle. In the System Analysis and Design terminology, the system development life cycle means software development life cycle.

**What is SAP?**

SAP, started in 1972 by five former IBM employees in Mannheim, Germany, states that it is the world's largest inter-enterprise software company and the world's fourth-largest independent software supplier, overall. The original SAP idea was to provide customers with the ability to interact with a common corporate database for a comprehensive range of applications. Gradually, the applications have been assembled and today many corporations, including IBM and Microsoft, are using SAP products to run their own businesses.

SAP applications, built around their latest R/3 system, provide the capability to manage financial, asset, and cost accounting, production operations and materials, personnel, plants, and archived documents. The R/3 system runs on a number of platforms including Windows 2000 and uses the client/server model. The latest version of R/3 includes a comprehensive Internet-enabled package. SAP has recently recast its product offerings under a comprehensive Web interface, called mySAP.com, and added new e-business applications, including customer relationship management (CRM) and supply chain management (SCM).

In early 2001, SAP, a publicly traded company, had 21,500 employees in over 50 countries, and more than 30,000 installations. SAP is turning its attention to small- and-medium sized businesses. A recent R/3 version was provided for IBM's AS/400 platform.

**SAP-R/3**

R/3 is the comprehensive set of integrated business applications from SAP, the German company that states it is the market and technology leader in business application software. R/3 replaced an earlier system, R/2, which is still in use. R/3 uses the client/server model and provides the ability to store, retrieve, analyze, and process in many ways corporate data for
financial analysis, production operation, human resource management, and most other business processes.

A recent release of R/3 makes it possible to get to the R/3 database and applications through Internet access and Web browsers. A sales representative can initiate the workflow for a sales order by filling out an electronic form on a laptop that will be "translated" into input for the R/3 system. Other interfaces such as Lotus can also be used. The Web implementation adheres to the Workflow Client API standard of the Workflow Management Coalition (WfMC).

A more recent version of R/3 adds features designed to speed product delivery by helping to manage the supply chain.

Here is a list of 10 ways that SAP business software helps large organizations make the most of their extensive resources:

- It enables open and efficient communication and resource management between departments and business levels located far from each other.
- It is built to benefit small businesses as well as global corporate conglomerates.
- SAP business software operates on databases that are versatile and offer powerful enterprise integration features.
- With open and increased data flow between departments production quality improves it leverages benefits in product development and marketing.
- SAP applications and modules are versatile enough to handle global operations between many languages and currencies.
- With SAP enterprise integration software large and small businesses alike can agile in adapting to the changing market conditions.
- SAP software has an extensive support structure to document and administer its powerful capabilities with expert certification.
- SAP employs over 35,000 business software professionals in over 50 countries for global sales and technical support for their power software suite.
SAP operates robust research and venture capital divisions in order to continually improve their products and to remain far in the lead for business software.

SAP helps to pinpoint inefficiencies in the organization and to empower integration and synergy of great competitive resources.

**SAP-SOFTWARE**

**Introduction**

The implementation of SAP software, such as SAP R/3, is almost always a massive operation that brings a lot of changes in the organization. The whole process can take a few years. Most probably every person in the organization is involved, whether they are part of the SAP technical support organization (TSO) or the actual end-users of the SAP software. All the changes that the implementation of SAP generates are being made to reach high level goals, such as improved communication and increased return on information (because people will work with the same information). It is therefore very important that the implementation process is planned and executed with the usage of a solid method. There are various SAP implementation methods, such as IBM’s Ascendant. Unfortunately, no information on these methods is freely available and therefore this entry does not describe such a method but a generic implementation method.

**Overview**

The e-process-data diagram that is depicted at the right, gives an overview of all of these activities/processes and deliverables. The four gray boxes depict the four main concepts that result from the processes. Boxes without a shadow have no further sub-concepts. Boxes with a black shadow depict complex closed concepts, so concepts that have sub-concepts, which however will not be described in any more detail. Boxes with a white shadow (a box behind it) depict open closed concepts, where the sub-concepts are expanded in greater detail. The lines with diamonds showImw a has-a relationship between concepts.