

# **Sessional Assignment**

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**CLASS BS SE B**

- 1) Define organization; also explain the structure of an organization by giving an example of a well known organization. (Note: every student should take the example of different organization from another).

Ans1: an organized group of people with a particular purpose, such as a business or government department.

Structure of organization: An organizational structure is a system that outlines how certain activities are directed in order to achieve the goals of an organization. These activities can include rules, roles, and responsibilities.

The organizational structure also determines how information flows between levels within the company. For example, in a centralized structure, decisions flow from the top down, while in a decentralized structure, decision-making power is distributed among various levels of the organization.

## **Types of Organizational Structures**

### **Functional Structure**

Four types of common organizational structures are implemented in the real world. The first and most common is a functional structure. This is also referred to as a [bureaucratic organizational structure](#) and breaks up a company based on

the specialization of its workforce. Most small-to-medium-sized businesses implement a functional structure. Dividing the firm into departments consisting of marketing, sales, and operations is the act of using a bureaucratic organizational structure.

#### Divisional or Multidivisional Structure

The second type is common among large companies with many business units. Called the divisional or multidivisional structure, a company that uses this method structures its leadership team based on the products, projects, or subsidiaries they operate. A good example of this structure is Johnson & Johnson. With thousands of products and lines of business, the company structures itself so each business unit operates as its own company with its own president.

#### Flatarchy Structure

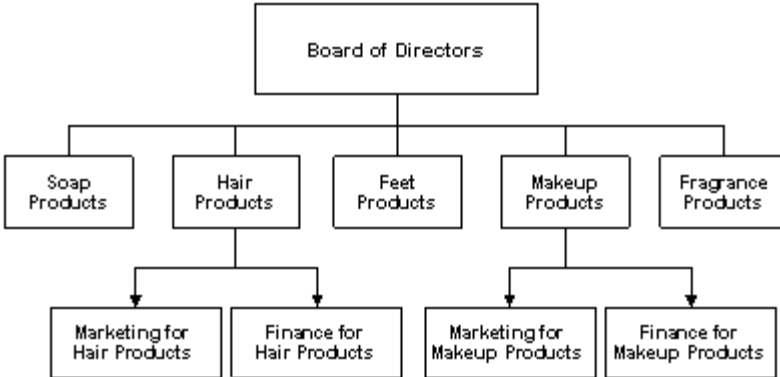
Flatarchy, a newer structure, is the third type and is used among many startups. As the name alludes, it flattens the hierarchy and chain of command and gives its employees a lot of autonomy. Companies that use this type of structure have a high speed of implementation.

#### Matrix Structure

The fourth and final organizational structure is a matrix structure. It is also the most confusing and the least used. This structure matrixes employees across different superiors, divisions, or departments. An employee working for a matrixed company, for example, may have duties in both sales.

## Product Organizational Structure

A third common type of organizational structure, the **product organizational structure**, is organized based upon a company's product lines.



*Product Organizational Structure*

2) Explain System Development Life Cycle; also explain different types system development life cycle.

Ans2: System Development Life Cycle (SDLC) is the overall process of developing information systems through a multi-step process from investigation of initial requirements through analysis, design, implementation and maintenance. SDLC is also known as information systems development or application development. SDLC is a systems approach to problem solving and is made up of several phases, each comprised of multiple steps. It describes the stages a system passes through from inception until it is discarded or replaced. SDLC provides 1. Structure 2. Methods 3. Controls 4. Checklist

DIFFERENT TYPES of System Development Life-Cycle Model

The concept of system development lifecycle model has been explained in various shapes and forms. The concluding form follows the same spirit except for minor differences.

1. Waterfall model / Classic lifecycle/ Linear Sequential Model

The waterfall model is a software development model (a process for the creation of software) in which development is seen as flowing steadily downwards (like a waterfall) through the various phases

## 2. Incremental Models

In incremental models, software is built not written. Software is constructed step by step in the same way a building is constructed. The products is designed, implemented, integrated and tested as a series of incremental builds, where a build consists of code pieces from various modules interacting together to provide a specific functional capability and testable as a whole.

## 3. Iterative Models

In these models customer feed back is taken at each phase and project is modified accordingly – if need be. Prototypes are used in these models

3) Explain Incremental model and Spiral; also explain main deference between spiral and incremental model.

Ans3; INCREMENTAL MODEL:

The incremental model is a method of software/ Information System development where the model is designed, implemented and tested incrementally until the product is finished. It involves both development and maintenance. This model combines the elements of the waterfall model with the philosophy of prototyping. Example -An example of this incremental approach is observed in the development of word processing applications where the following services are provided on subsequent modules:

- Basic file management, editing and document production functions
- Advanced editing and document production functions
- Spell and grammar checking
- Advance page layout

SPIRAL MODEL:

SPIRAL is an iterative approach to system development. The spiral lifecycle model is a combination of the classic waterfall model and aspects of risk analysis. This model is very appropriate for large and complex Information Systems. The spiral model emphasizes the need to go back and reiterate earlier steps a number of times as the project progresses. It's actually a series of short waterfall cycles, each producing an early prototype representing a part of the entire project. It is a circular view of the software lifecycle as opposed to the linear view of the waterfall approach.

DIFFERENCES between incremental model and spiral model.

<b>Properties of Model</b>	<b>Incremental Model</b>	<b>Spiral Model</b>
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<b>Properties of Model</b>	<b>Incremental Model</b>	<b>Spiral Model</b>
Planning in early stage	Yes	Yes
Returning to an earlier phase	Yes	Yes
Handle Large-Project	Not Appropriate	Appropriate
Detailed Documentation	Yes but not much	Yes
Cost	Low	Expensive
Requirement Specifications	Beginning	Beginning
Flexibility to change	Easy	Easy
User Involvement	Intermediate	High
Maintenance	Promotes Maintainability	Typical
Duration	Very long	Long
Risk Involvement	Low	Medium to high risk
Framework Type	Linear + Iterative	Linear + Iterative
Testing	After every iteration	At the end of the engineering phase
Overlapping Phases	Yes (As parallel development is there)	No
Maintenance	Maintainable	Yes
Re-usability	To some extent	To some extent
Time-Frame	Long	Long
Working software availability	At the end of every iteration	At the end of every iteration
Objective	Rapid Development	High Assurance
Team size	Not Large Team	Large Team
Customer control	Yes	Yes

**Properties of  
Model**

**Incremental  
Model**

**Spiral Model**

over administrator