STRUCTURE CHART

A Structure Chart (SC) in software engineering is a chart which shows the breakdown of a system to its lowest manageable levels. They are used in structured programming to arrange program modules into a tree. Each module is represented by a box, which contains the module's name. The tree structure visualizes the relationships between modules, showing data transfer between modules using arrows.

Structured Charts are an example of a top-down design where a problem (the program) is broken into its components. The tree shows the relationship between modules, showing data transfer between the models.

Structure charts are developed before the writing of program code. Structure chart assist the analyst in developing software that meets the objectives of good software design.

Symbols used in construction of structured chart:
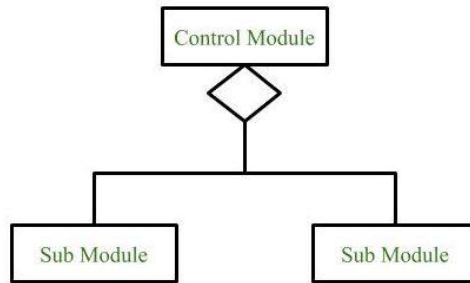
1. Module

It represents the process or task of the system. It is of three types.

- **Control Module:** a control module branches to more than one sub module.

- **Sub Module:** Sub Module is a module which is the part (Child) of another module.

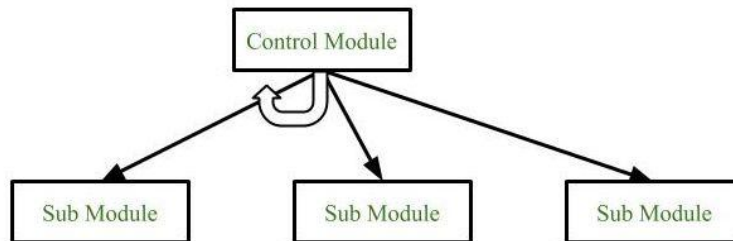- **Library Module:** Library Module is reusable and invokable from any module.
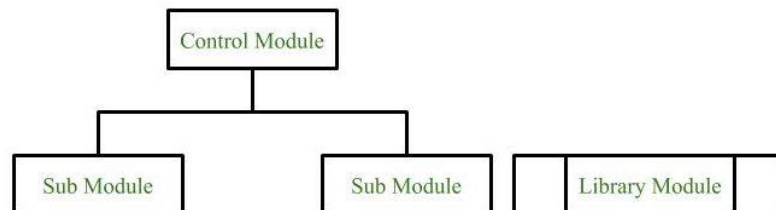
2. Conditional Call

It represents that control module can select any of the sub module on the basis of some condition

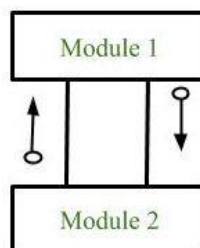### 3. Loop (Repetitive call of module)

It represents the repetitive execution of module by the sub module. A curved arrow represents loop in the module.

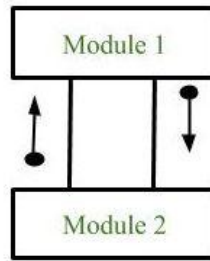All the sub modules cover by the loop repeat execution of module.

4. Data Flow

It represents the flow of data between the modules. It is represented by directed arrow with empty circle at the end.
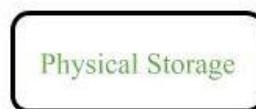

5. Control Flow

It represents the flow of control between the modules. It is represented by directed arrow with filled circle at the end.
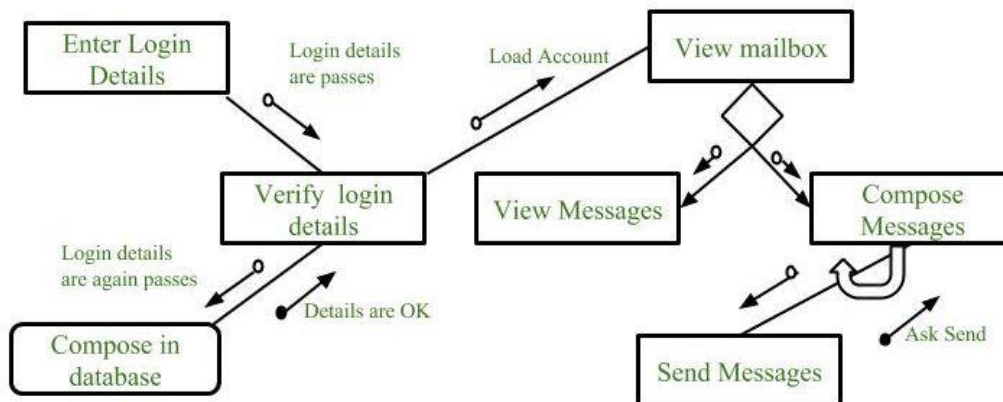
6. Physical Storage

Physical Storage is that where all the information are to be stored.

Example: Structure chart for an Email server

Types of Structure Chart:

1. Transform Centered Structured:

This type of structure chart is designed for the systems that receive an input which is transformed by a sequence of operations being carried out by one module.

2. Transaction Centered Structure:

This structure describes a system that processes a number of different types of transaction.