**Lab Assignment: 07**

**Object:** To draw the ***Structure Chart*** for ***Hotel Management.***

**Introduction:**

Structure chart is a derived form of data flow diagram. It represents the system in more detailed than DFD. It breaks down the entire system into lowest functional modules, describes the function and sub-functions of each modules of the system to a greater detail than DFD. In this a specific task is performed at each level.

A structure chart is a top-down modular design tool, constructed of squares representing the different modules in the system, and lines that connect them. The lines represent the connection and or ownership between activities and sub activities as they are used in organization charts. In structured analysis structure charts, according to Wolber (2009), "are used to specify the high-level design, or architecture, of a computer program.

There are some symbols used in Structure Charts:

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| --- | --- |
| **Symbols** | **Flow chart** |
| **Modules:** It represents Process, sub-routines or tasks. | Module  Sub-module1  Sub-module2 |
| **Condition:** It is represented by  at the base of the module. It represent that control module can select any of sub-routines based on some conditions | Module  Sub-module1  Sub-module2 |
| **Loop:** A curved arrow represents loop in the module. | M  M1  M2 |
| **Data flow:** A directed arrow with empty circle at the end of the end, represents Data Flow. | M  M1 |
| **Control Flow:** A directed arrow with solid circle at the end of the end represents Control Flow. | M  M1 |

There are basically two types of Software Design Approaches:

**Top Down Approach:**

In this type of design, we split both, the system or project into small sub-modules or sub-systems. In top down design, we decompose a single problem into small problem by dividing it in small components. In this approach each sub modules is treated as a system. We can further divide the sub modules into next level of sub modules.

**Bottom Up Approach:**

This model starts with most specific and basic components. In bottom up approach, we first collect the lower level component then we integrate this lower level component in a main component or module. Further we integrate two or more modules and develop the overall system. Bottom up approach is suitable when some existing system is available.

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