Strategy of software design

Subject- Software Engineering

Course- BCA

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Strategy of Software & design

- A good system design strategy is to organize the program modules in such a way that are easy to develop and later to, change.
- Types-

1-Top-Down

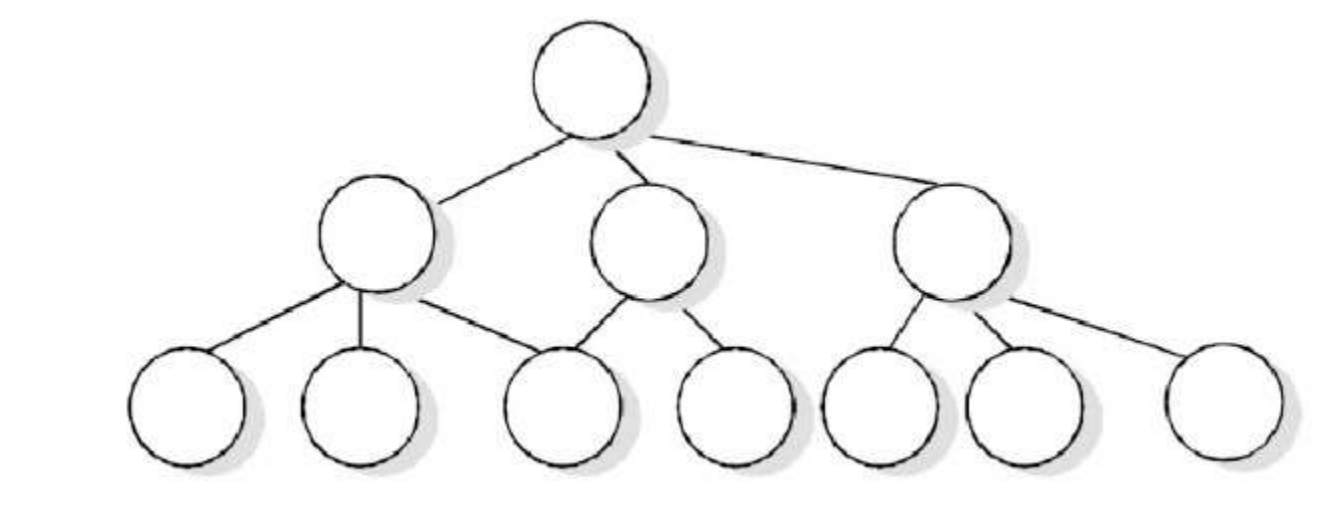
2-Bottom-Up

3-Hybrid

Top Down Design

- Top-down design starts with a generalized model of system and keeps on defining the more specific part of it. When all components are composed the whole system comes into existence.

Top-down structure:-



When to use:-

When the Problem is well understood.

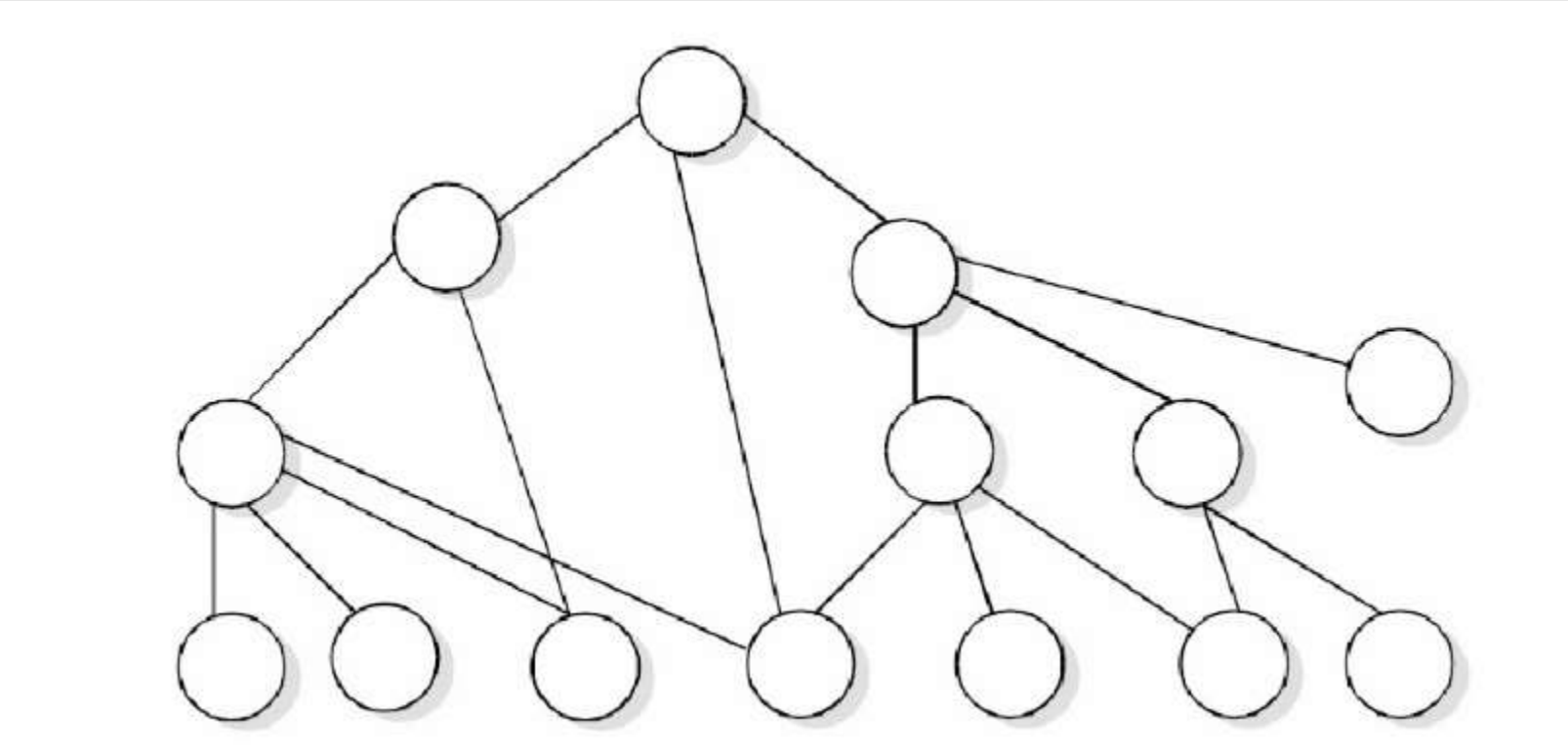
Used mostly in:-

Data processing applications, scientific applications, and utility programs (compilers, editors, etc.)

Bottom-up Design

- The bottom up design model starts with most specific and basic components. It proceeds with composing higher level of components by using basic or lower level components. It keeps creating higher level components until the desired system is not evolved as one single component. With each higher level, the amount of abstraction is increased.

Bottom-up tree structure:-



When to use:-

Requirement in product are not specified.

A system is to built from an existing system.

Used mostly in:-

Real-time systems, operating systems, distributed systems, multimedia information systems.

Hybrid

- Both, top-down and bottom-up approaches are not practical individually. Instead, a good combination of both is used. Which is known as hybrid design approach.

Thank You