FACULTY OF ENGINEERING & TECHNOLOGY

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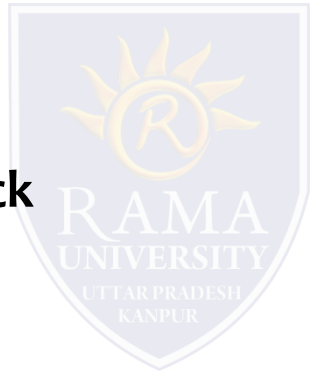
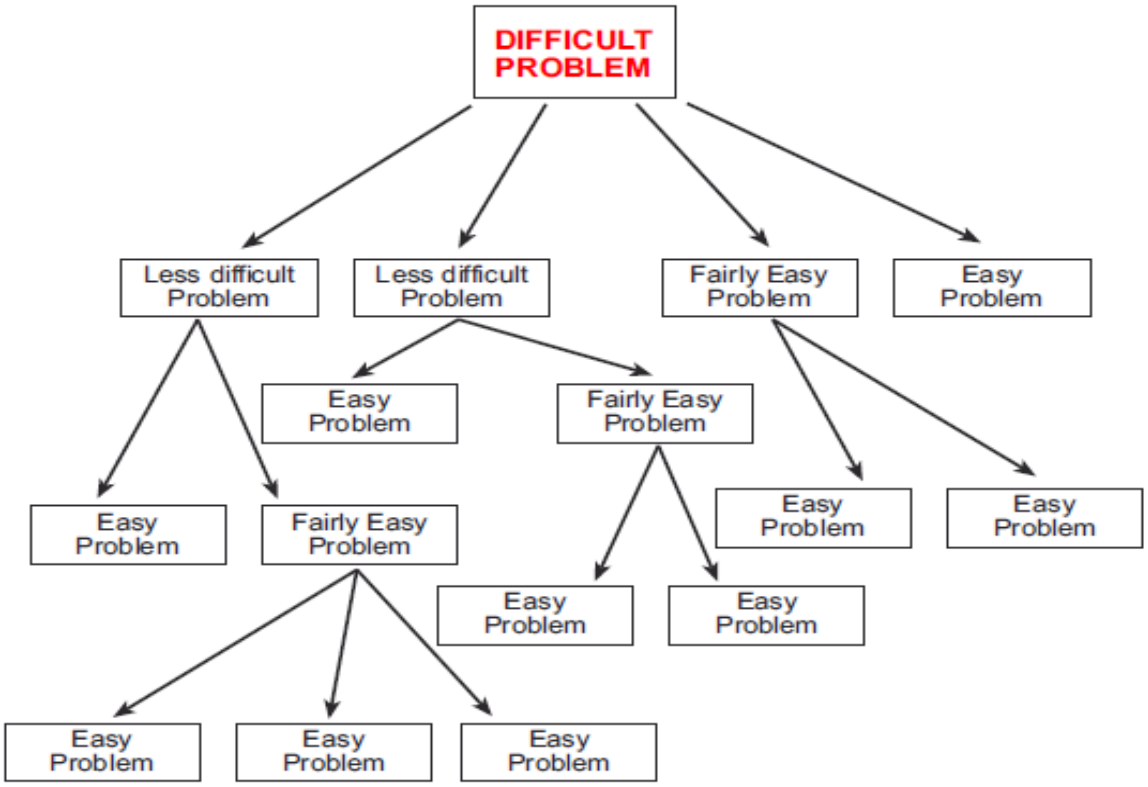
Topics Covered

Stepwise refinement
Structured Coding techniques
Structured Rule One: Code Block



Stepwise refinement

•Refinement is the movement from higher levels of detail to lower levels.



Structured Coding techniques

Structured Programming Approach

•It is defined as a programming approach in which the program is made as a single structure

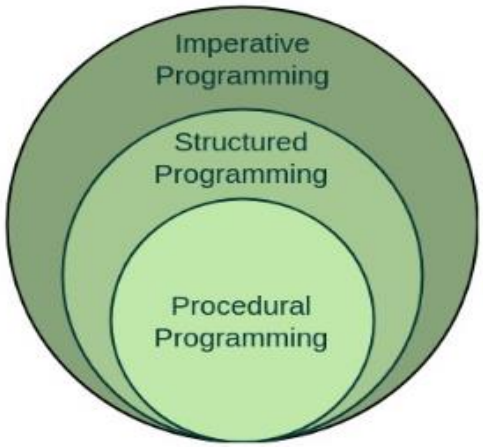
•the instructions in this approach will be executed in a serial and structured manner

•The languages that support Structured programming approach are:

- ✓ C
- ✓ C++
- ✓ Java
- ✓ C# etc

•The structured program mainly consists of three types of elements:

- ✓ Selection Statements
- ✓ Sequence Statements
- ✓ Iteration Statements



Structured Rule One: Code Block

- If the entry conditions are correct, but the exit conditions are wrong, the error must be in the block.
- This is not true if the execution is allowed to jump into a block.
- The error might be anywhere in the program. Debugging under these circumstances is much harder.

- **Rule 1 of Structured Programming:**
  - A code block is structured, as shown in the figure.
  - In flow-charting condition, a box with a single entry point and single exit point are structured.
  - Structured programming is a method of making it evident that the program is correct.