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Object Oriented Design

Software Design Methodologies



Object Oriented Design

The important concepts of Object Oriented Design

•Objects

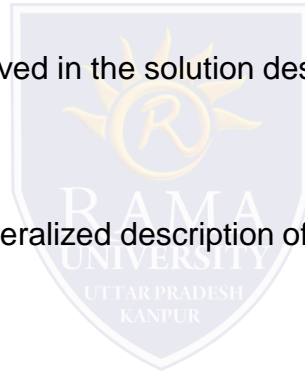
- All entities involved in the solution design are known as objects

•Classes

- A class is a generalized description of an object

•Encapsulation

- In OOD, the attributes (data variables) and methods (operation on the data) are bundled together is called encapsulation



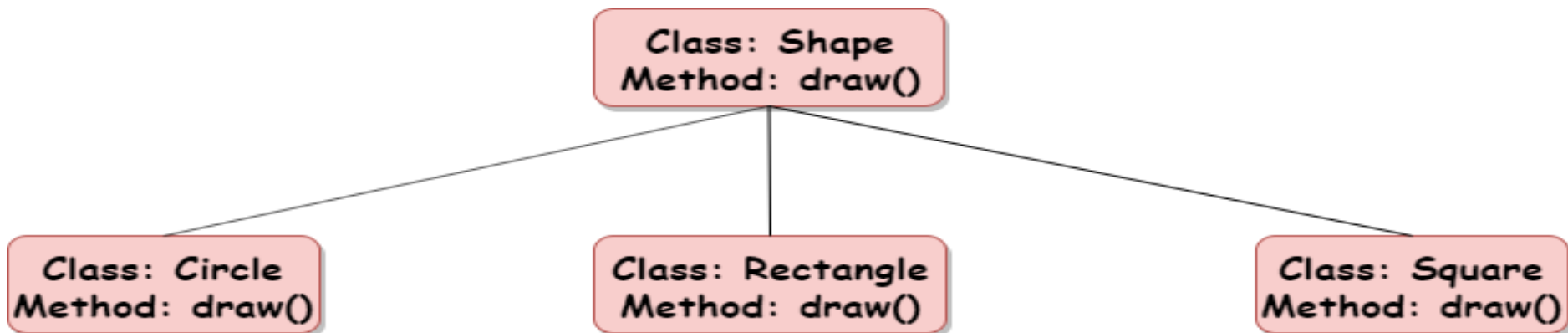
Object Oriented Design

- **Inheritance**

OOD allows similar classes to stack up in hierarchical manner where the lower or sub-classes can import, implement and re-use allowed variables and methods from their immediate super classes

- **Polymorphism**

OOD languages provide a mechanism where methods performing similar tasks but vary in arguments, can be assigned same name

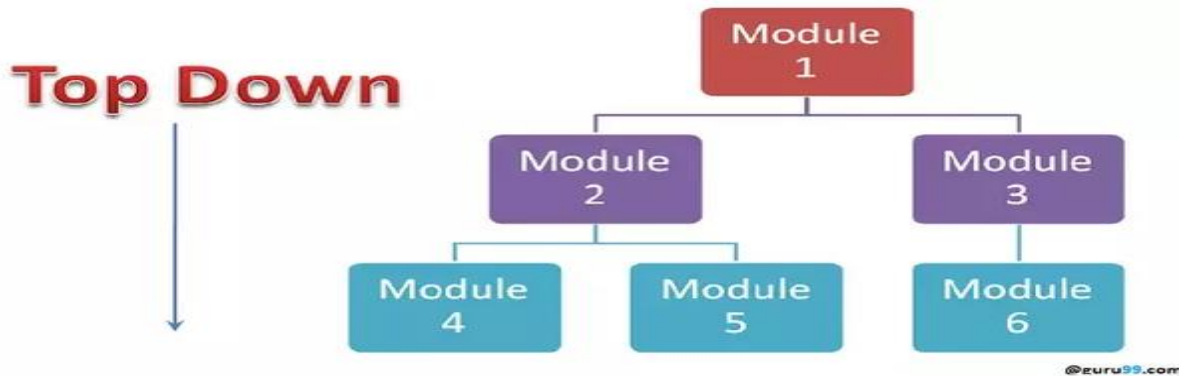


Software Design Methodologies

Here are two generic approaches for software designing:

– Top Down Design

- Top-down design takes the whole software system as one entity and then decomposes it to achieve more than one sub-system
- Top-down design starts with a generalized model of system and keeps on defining the more specific part of it



1. All keywords in C are in?

- a) Lower Case letters
- b) Upper Case letters
- c) Camel Case letters
- d) None

2. Variable name resolving (number of significant characters for uniqueness of variable) depends on?

- a) Compiler and linker implementations
- b) Assemblers and loaders implementations
- c) C Language
- d) None

3. Which of the following is not a valid C variable name?

- a) int number;
- b) float rate;
- c) int variable_count;
- d) int \$main;



4. Which of the following is true for variable names in C?

- a) They can contain alphanumeric characters as well as special characters.
- b) It is not an error to declare a variable to be one of the keywords (like goto, static)
- c) Variable names cannot start with a digit.
- d) Variable can be of any length.

5. Which is valid C expression?

- a) int my_num = 100,000;
- b) int my_num = 100000;
- c) int my num = 1000;
- d) int \$my_num = 10000;