**What is Abstraction in Java?**

**Abstraction in JAVA** shows only the essential attributes and hides unnecessary details of the object from the user. In Java, abstraction is accomplished using Abstract class, Abstract methods, and Interfaces. Abstraction helps in reducing programming complexity and effort.

## What is Abstract Class?(does not contain any body or implementation(syntax))

**ABSTRACT CLASS**is a type of class in Java, that declare one or more abstract methods. These classes can have abstract methods as well as concrete methods. A normal class cannot have abstract methods. An abstract class is a class that contains at least one abstract method. We can understand the concept by the **shape example in java**.

Consider the following class hierarchy consisting of a Shape class which is inherited by three classes Rectangle, Circle, and Triangle. The Shape class is created to save on common attributes and methods shared by the three classes Rectangle, Circle, and Triangle. calculateArea() is one such method shared by all three child classes and present in Shape class.

**Syntax:**

abstract class Shape

{

// code

}

## Abstraction Code Example

abstract class Shape

{

abstract void calculateArea();

//may or may not have an abstract method

}

class guru99 extends Shape

{

void calculateArea(){System.out.println("Area

of Shape");}

public static void main(String args[])

{

Shape obj = new guru99();

obj.calculateArea();

}

}