## ABSTRACT CLASS

* **Abstract class:** is a restricted class that cannot be used to create objects (to access it, it must be inherited from another class).

# HOW TO IMPLEMENT ABSTRACT CLASSES

* In java implementation of abstract classes is done by factory method.
* A factory method returns an instance of the class.

An example to create an instance of rectangular class, a draw() method of rectangle will be invoked.

1. **abstract** **class** Shape{
2. **abstract** **void** draw();
3. }
4. //In real scenario, implementation is provided by others i.e. unknown by end user
5. **class** Rectangle **extends** Shape{
6. **void** draw(){System.out.println("drawing rectangle");}
7. }
8. **class** Circle1 **extends** Shape{
9. **void** draw(){System.out.println("drawing circle");}
10. }
11. //In real scenario, method is called by programmer or user
12. **class** TestAbstraction1{
13. **public** **static** **void** main(String args[]){
14. Shape s=**new** Circle1();//In a real scenario, object is provided through method, e.g., getShape() method
15. s.draw();
16. }
17. }