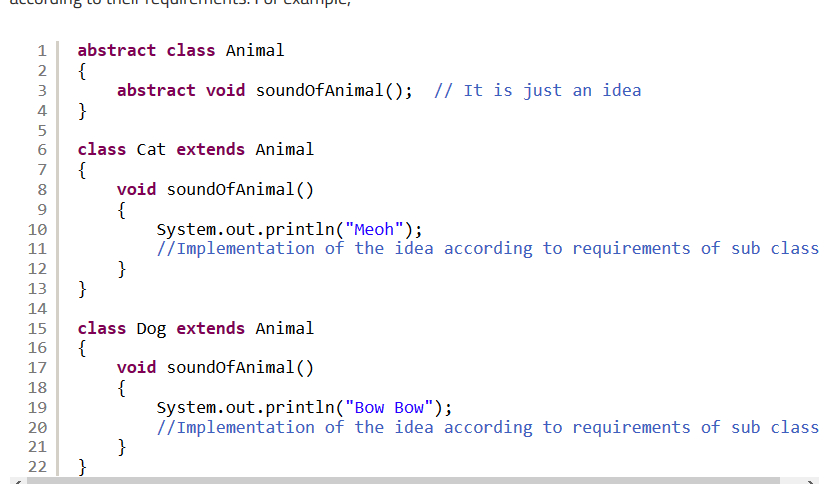
**Abstraction In Java**

In the computer science perspective, Abstraction is the process of separating ideas from their action.

Yes, In the computer science, Abstraction is used to separate ideas from their implementation. Abstraction in java is used to define only ideas in one class so that the idea can be implemented by its sub classes according to their requirements. For example,



**Abstract Classes : Rules**

1. Abstract classes contain abstract methods (you can refer them as ideas) so that they can be implemented in sub classes according to their requirements. They are also called as incomplete classes as they have some unimplemented abstract methods(ideas).

Let’s discuss some rules need to follow while using abstract classes and abstract methods.

* Abstract classes and abstract methods are declared using ‘**abstract**‘ keyword. We can’t create objects to those classes which are declared as abstract. But, we can create objects to sub classes of abstract class, provided they must implement abstract methods.

1. The methods which are not implemented or which don’t have definitions must be declared with ‘abstract’ keyword and the class which contains it must be also declared as abstract.
2. It is not compulsory that abstract class must have abstract methods. It may or may not have abstract methods. But the class which has at least one abstract method must be declared as abstract.
3. You can’t create objects to abstract class even though it does not contain any abstract methods.
4. Any class extending an abstract class must implement all abstract methods. If it does not implement, it must be declared as abstract.
5. Abstract methods can not be private. Because, abstract methods must be implemented somehow in the sub classes. If you declare them as private, then you can’t use them outside the class.