

# Pure class based inheritance achieved through Modules

Fish and Mammal come under category of Animal but fish can swim and a few of mammals can also swim, so include swim method in those classes which can achieve swimming.

```
module Swim  
  def swim  
    "I can swim!"  
  end  
end
```

```
class Animal; end
```

```
class Fish < Animal  
  include Swim  
end
```

```
class Mammal < Animal  
end
```

```
class Cat < Mammal
end
```

```
class Dog < Mammal
  include Swim
end
```

And now Fish and Dog objects can swim, but objects of other classes won't be able to:

```
dog = Dog.new
fish = Fish.new
cat  = Cat.new
```

```
dog.swim
=> "I can swim!"
```

```
fish.swim
=> "I can swim!"
```

```
cat.swim
```

```
NoMethodError: undefined method `swim' for #<Cat:0x00000001546180>
    from (irb):48
```