Inheritance

- Inheritance enable us to define a class that takes all the functionality from parent class and allows us to add more.

- It refers to defining a new class with little or no modification to an existing class. The new class is called **derived (or child) class** and the one from which it inherits is called the **base (or parent) class**.

Different forms of Inheritance

1. **Single inheritance**: When a child class inherits from only one parent class, it is called as single inheritance. We saw an example above.

2. **Multiple inheritance**: When a child class inherits from multiple parent classes, it is called as multiple inheritance.
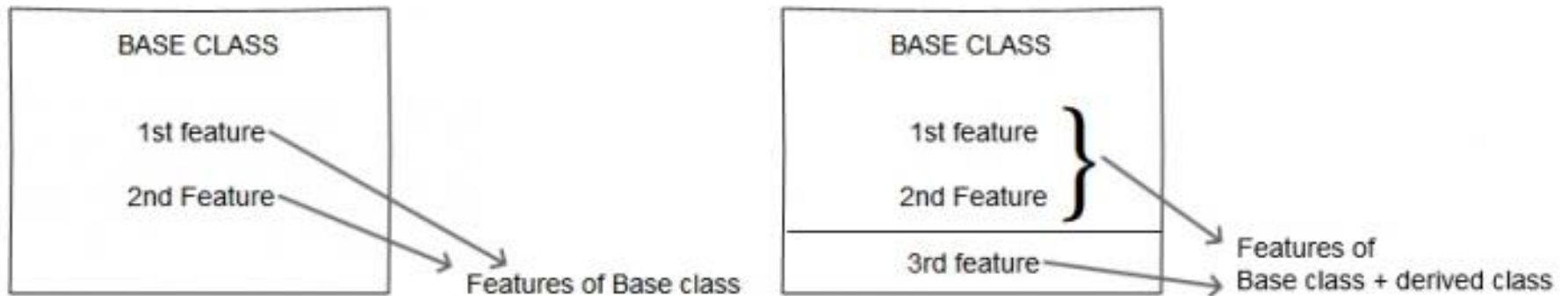
Inheritance

- The benefits of inheritance are:
  - It represents real-world relationships well.
  - It provides **reusability** of a code. We don't have to write the same code again and again. Also, it allows us to add more features to a class without modifying it.
  - It is transitive in nature, which means that if class B inherits from another class A, then all the subclasses of B would automatically inherit from class A.

Inheritance

- Syntax:

```
class BaseClass:
  Body of base class
class DerivedClass(BaseClass):
  Body of derived class
```