

Lecture

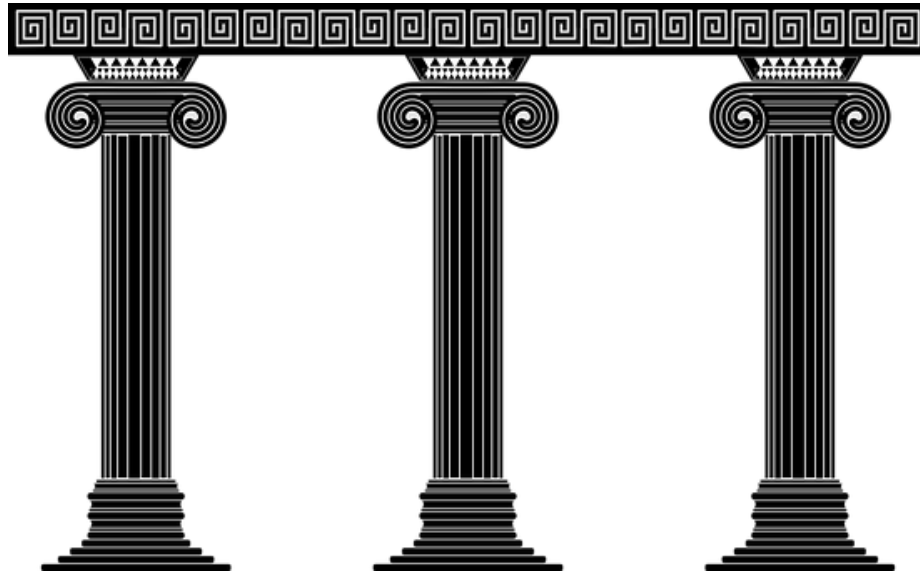
Intro to Inheritance





Inheritance

Abstraction





Inheritance



Poodle

Class



Schnauzer

Class



Inheritance



Poodle



Schnauzer

Class



Repeated Code

Class



Inheritance



Poodle



Class

```
class Poodle:
```

```
    def __init__(self, name, age, color, blood_type, vaccines=None):
        self._name = name
        self._age = age
        self._color = color
        self._blood_type = blood_type
        self._vaccines = vaccines

    def poodle_introduction(self):
        print(f"Hi, my name is {self._name}. I'm a Poodle")
```



Inheritance



Schnauzer

Class

```
class Schnauzer:
```

```
    def __init__(self, name, age, color, blood_type, vaccines=None):  
        self._name = name  
        self._age = age  
        self._color = color  
        self._blood_type = blood_type  
        self._vaccines = vaccines  
  
    def schnauzer_introduction(self):  
        print(f"Hi, my name is {self._name}. I'm a Schnauzer")
```





Inheritance



Poodle



Class

```
class Poodle:
```

```
    def __init__(self, name, age, color, blood_type, vaccines=None):
```

```
        self._name = name
```

```
        self._age = age
```

```
        self._color = color
```

```
        self._blood_type = blood_type
```

```
        self._vaccines = vaccines
```

```
    def poodle_introduction(self):
```

```
        print(f"Hi, my name is {self._name}. I'm a Poodle")
```



Inheritance



Schnauzer



Class

```
class Schnauzer:
```

```
    def __init__(self, name, age, color, blood_type, vaccines=None):  
        self._name = name  
        self._age = age  
        self._color = color  
        self._blood_type = blood_type  
        self._vaccines = vaccines
```

```
    def schnauzer_introduction(self):  
        print(f"Hi, my name is {self._name}. I'm a Schnauzer")
```





Don't Repeat Yourself (DRY)



Inheritance

**Poodles and
Schnauzers
are a type of**

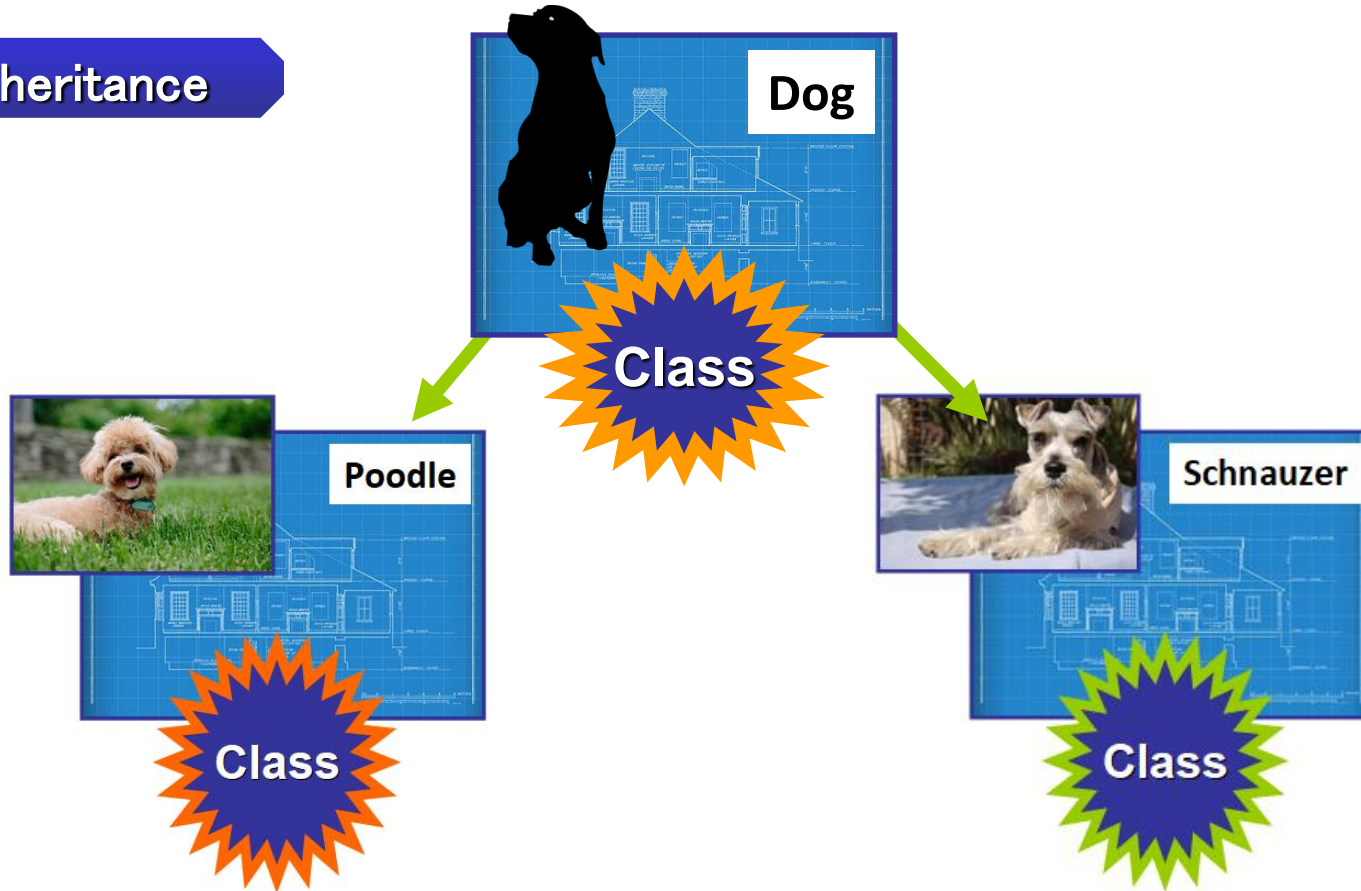


Inheritance

**Poodles and
Schnauzers
are a type of Dog**

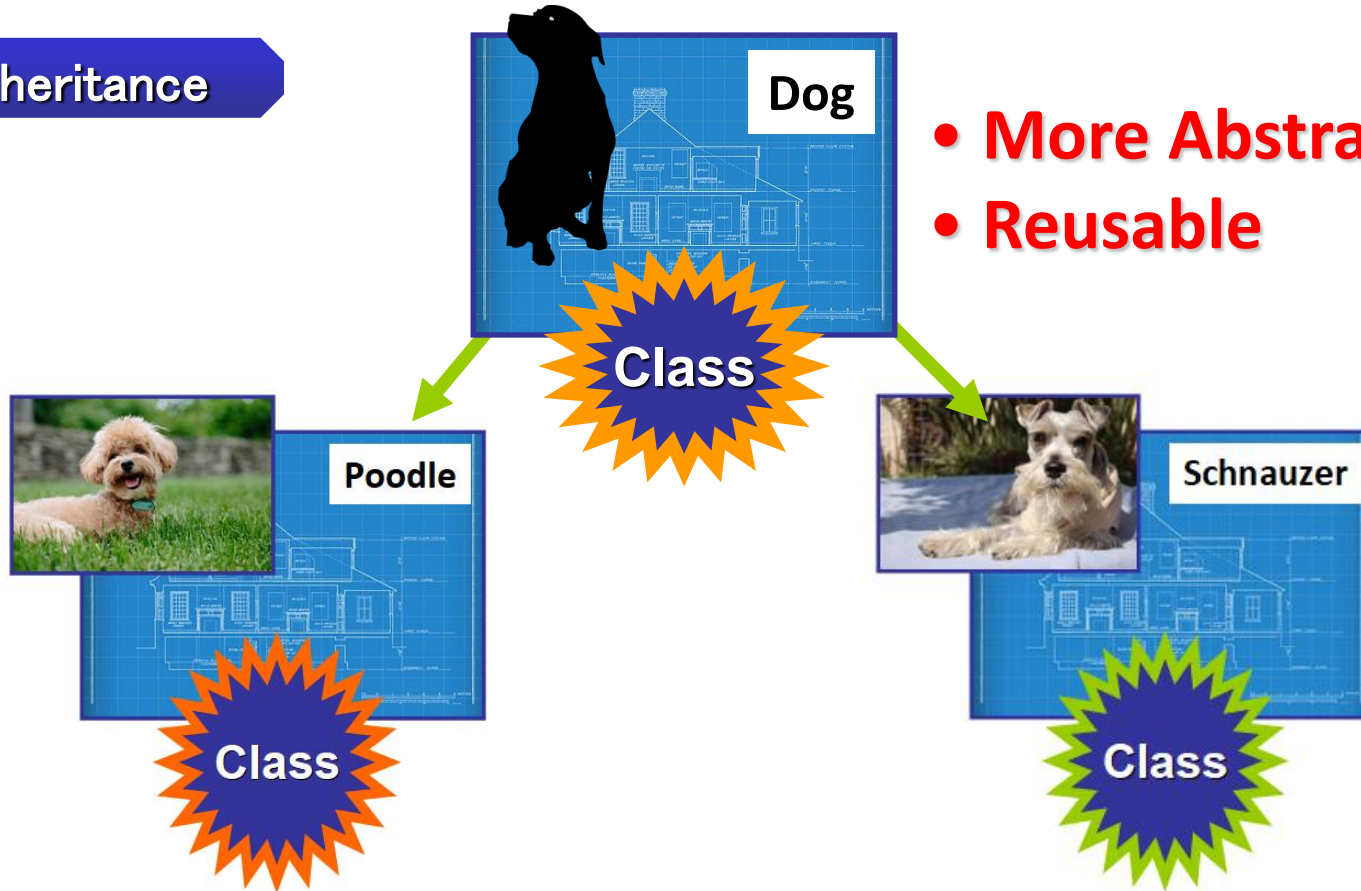


Inheritance



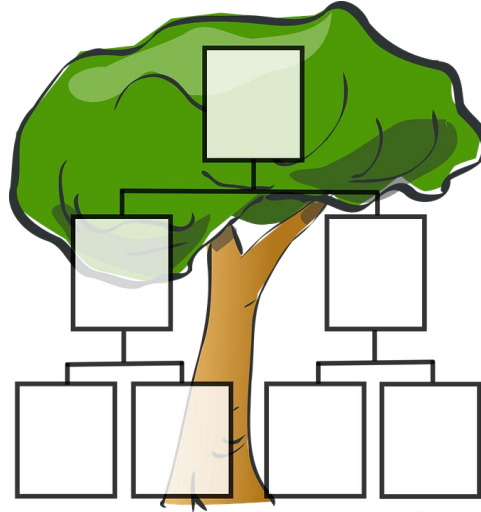


Inheritance





Inheritance



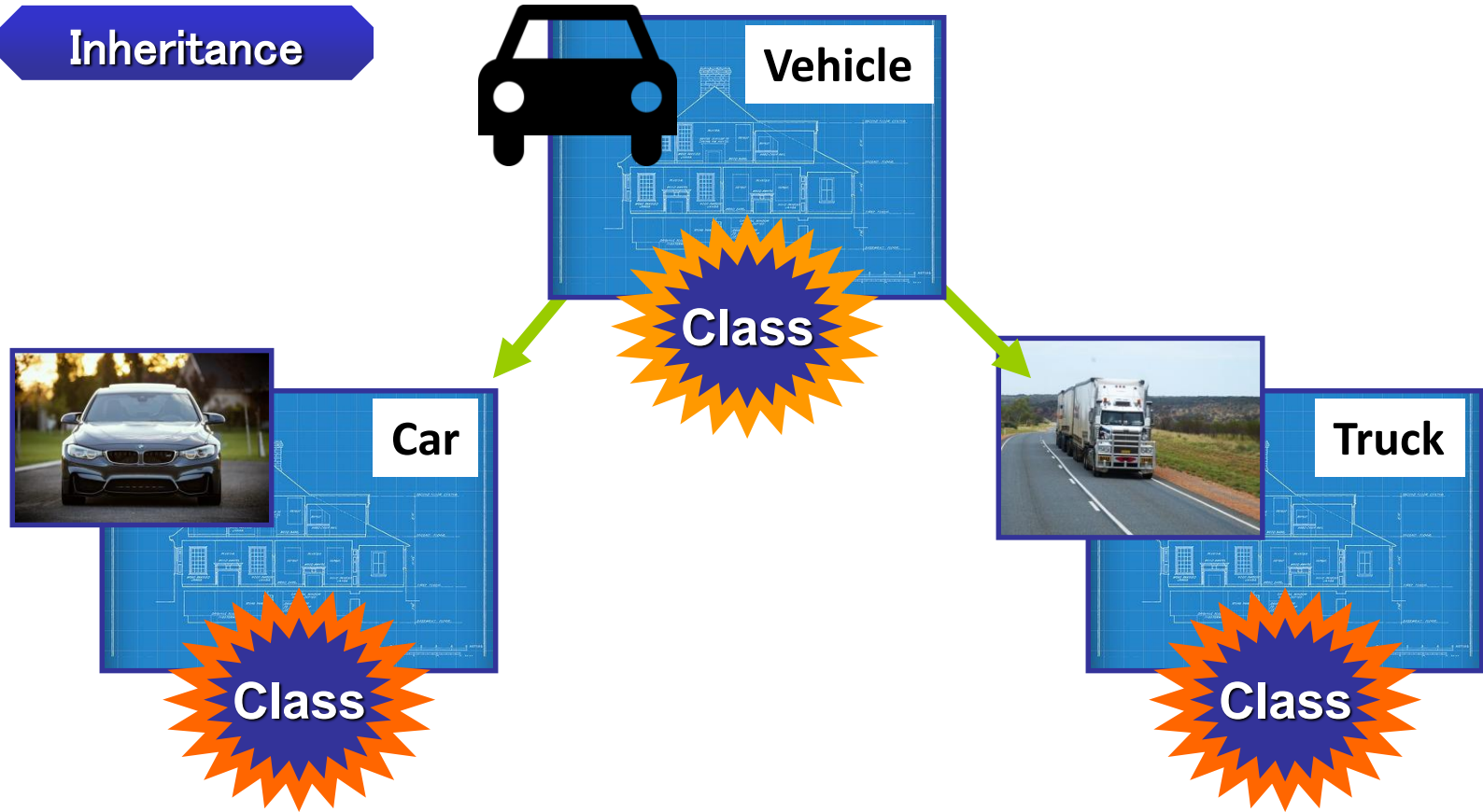


Inheritance

- ◆ Reusability
- ◆ Avoid code duplication
- ◆ Extensibility
- ◆ Improved design

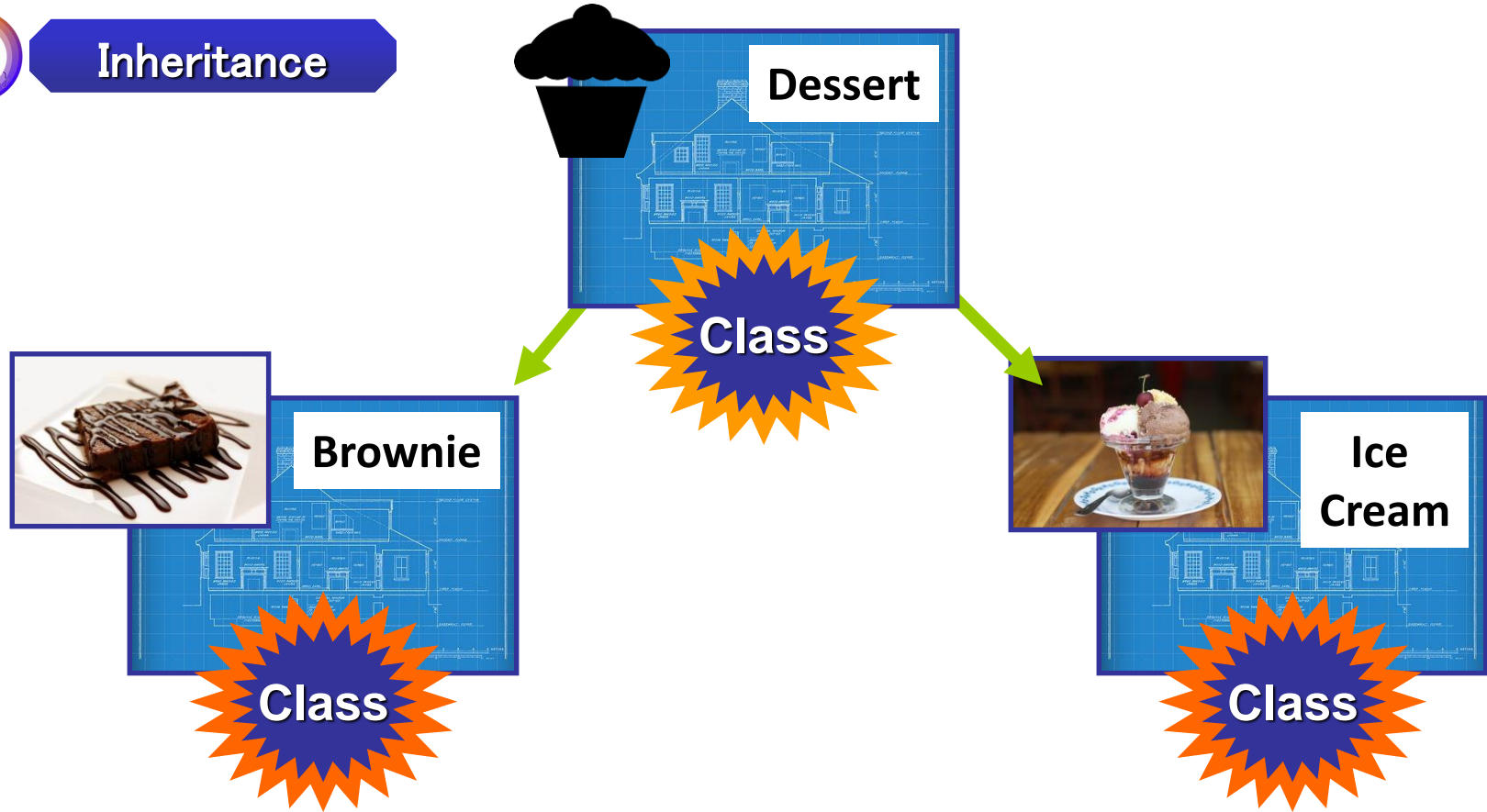


Inheritance



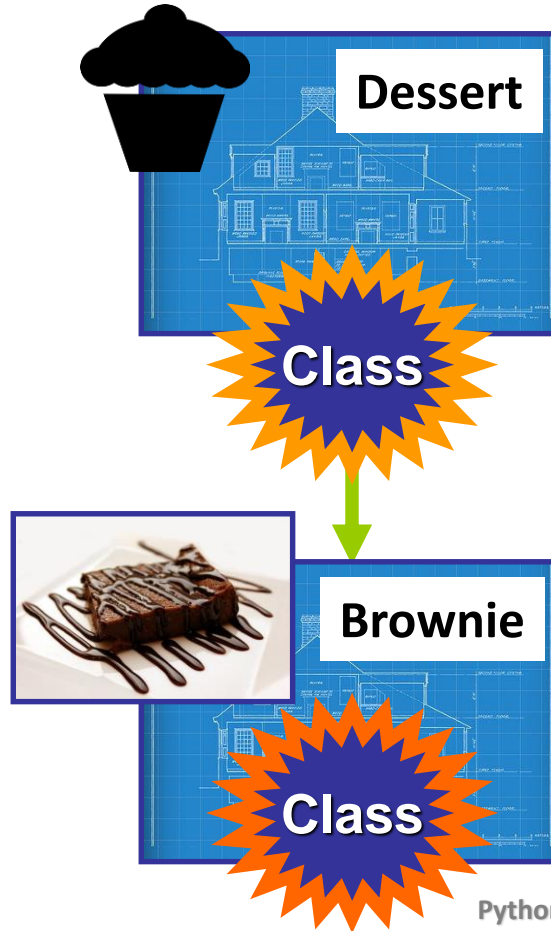


Inheritance



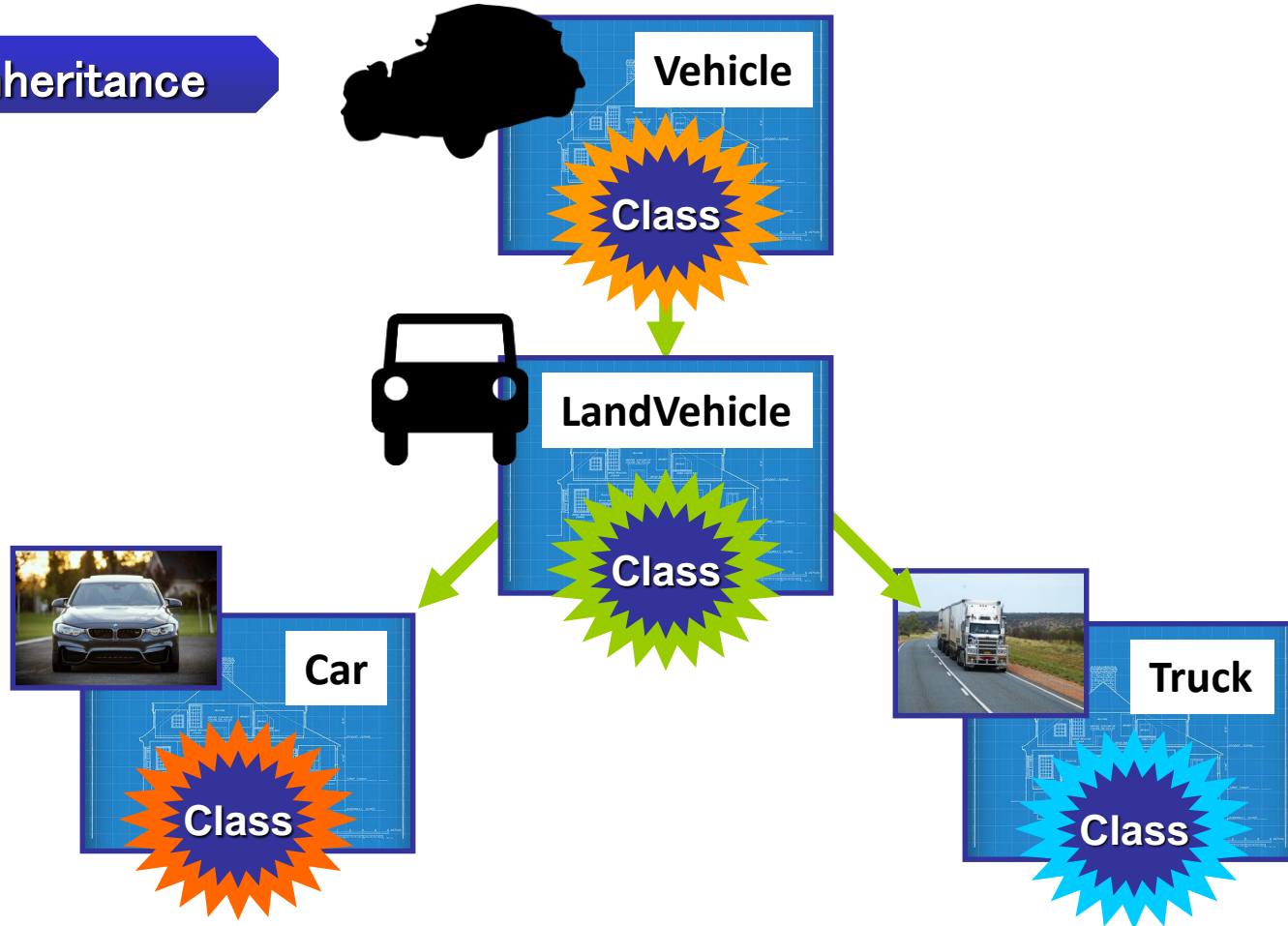


Inheritance





Inheritance



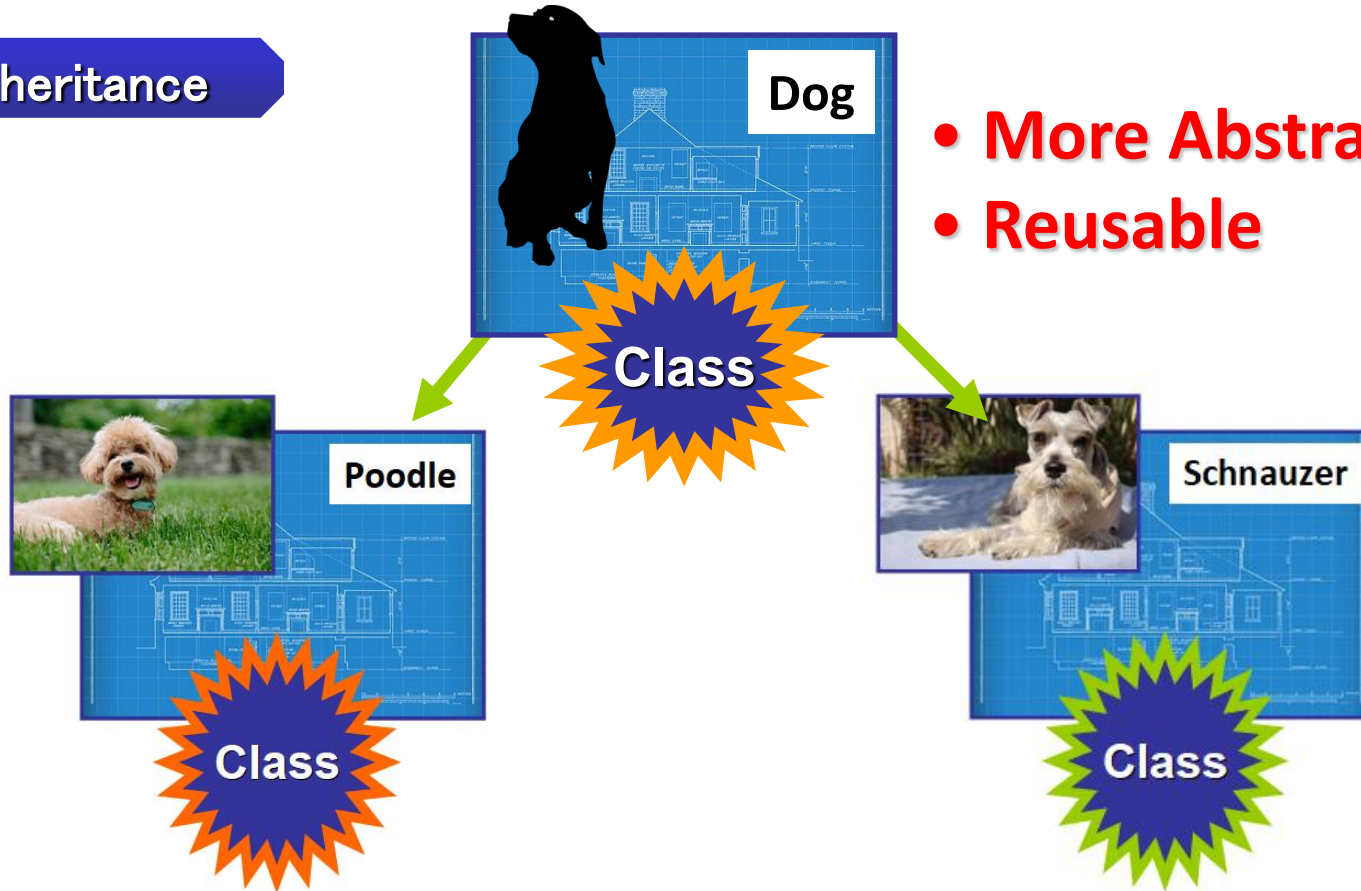


Inheritance

_____ is a type of _____



Inheritance





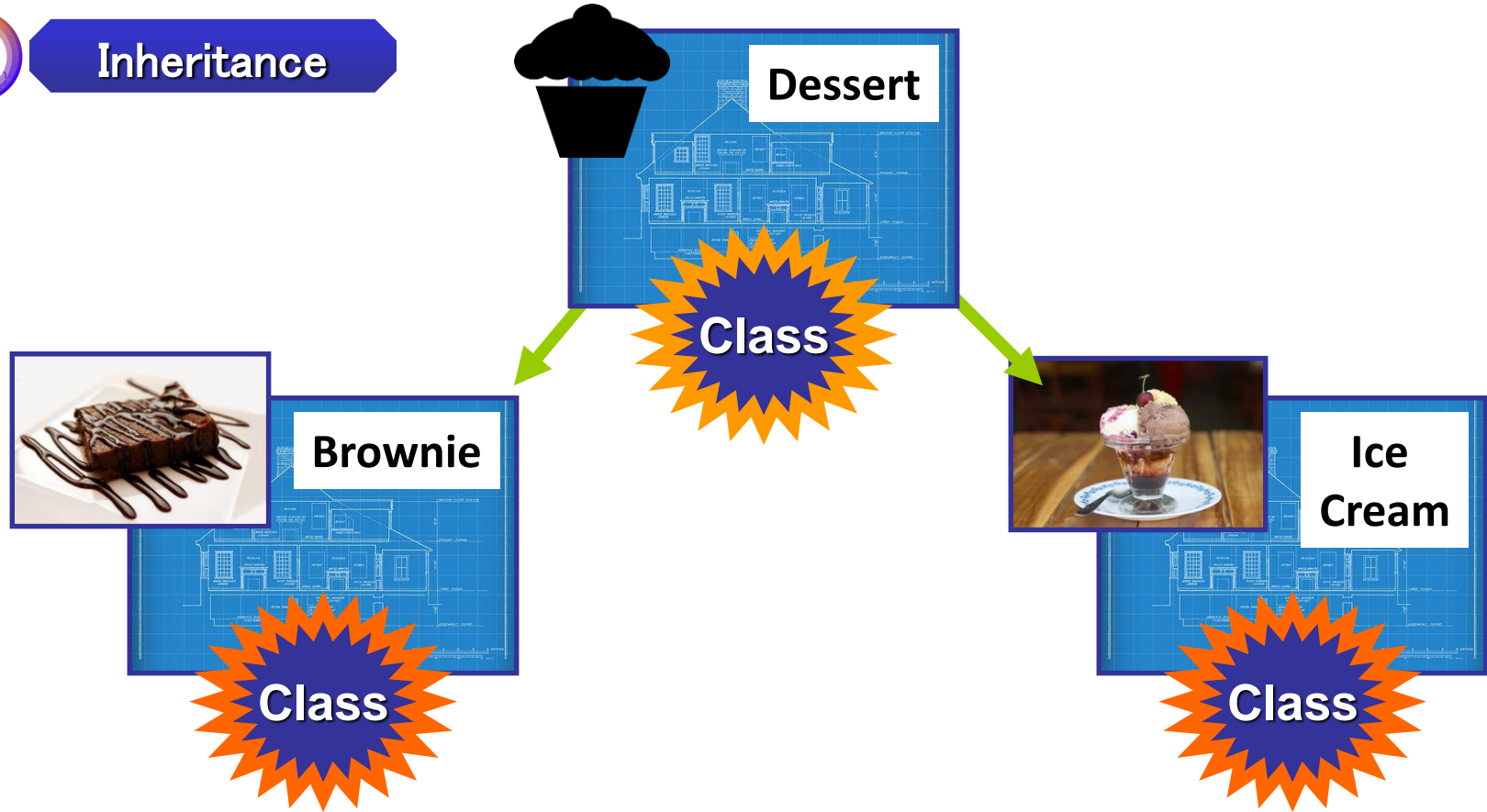
Inheritance

Poodle is a type of Dog

Schnauzer is a type of Dog



Inheritance





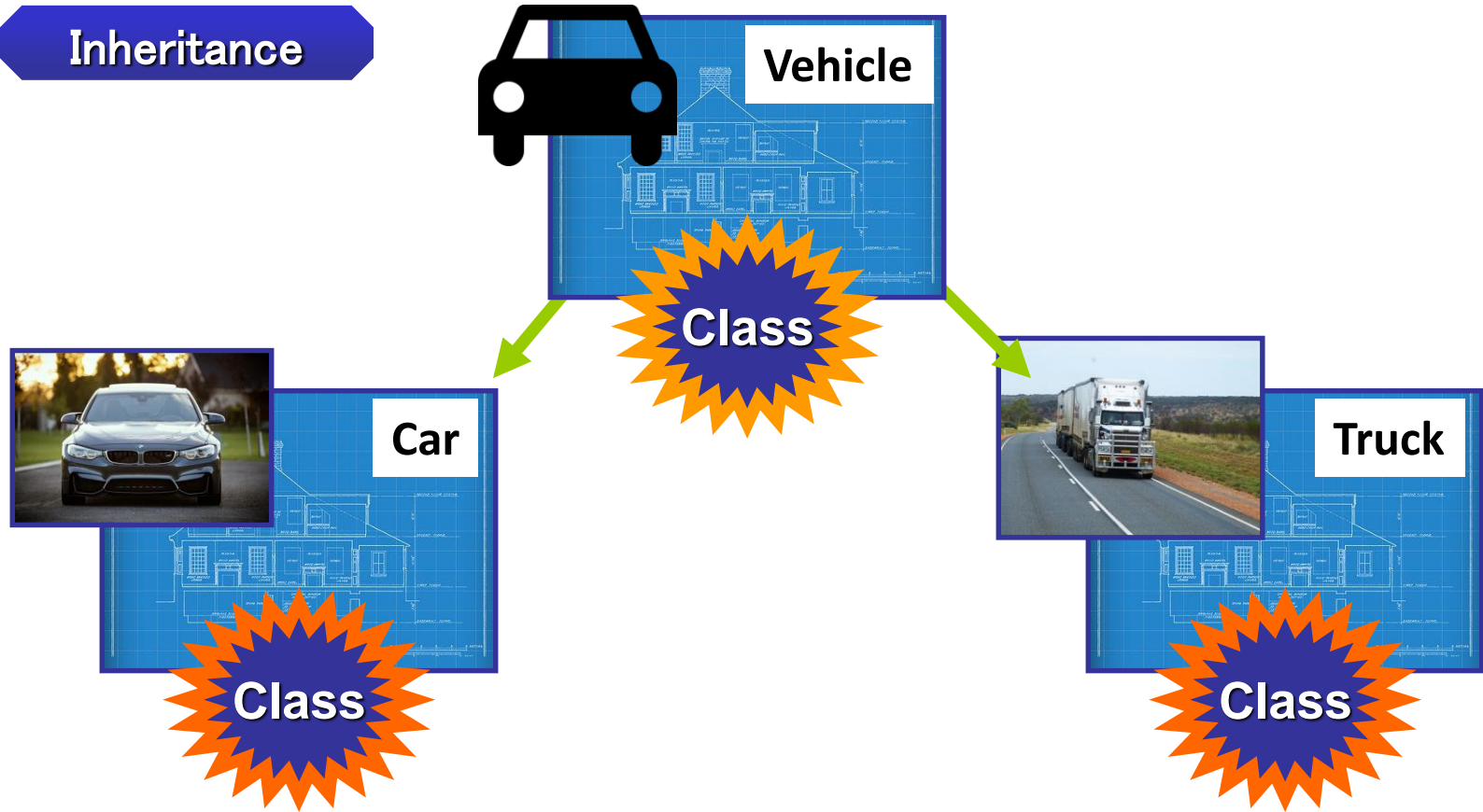
Inheritance

Brownie is a type of Dessert

Ice Cream is a type of Dessert



Inheritance





Inheritance

Car is a type of Vehicle

Truck is a type of Vehicle



Inheritance

_____ **is a type of** _____



Terminology

