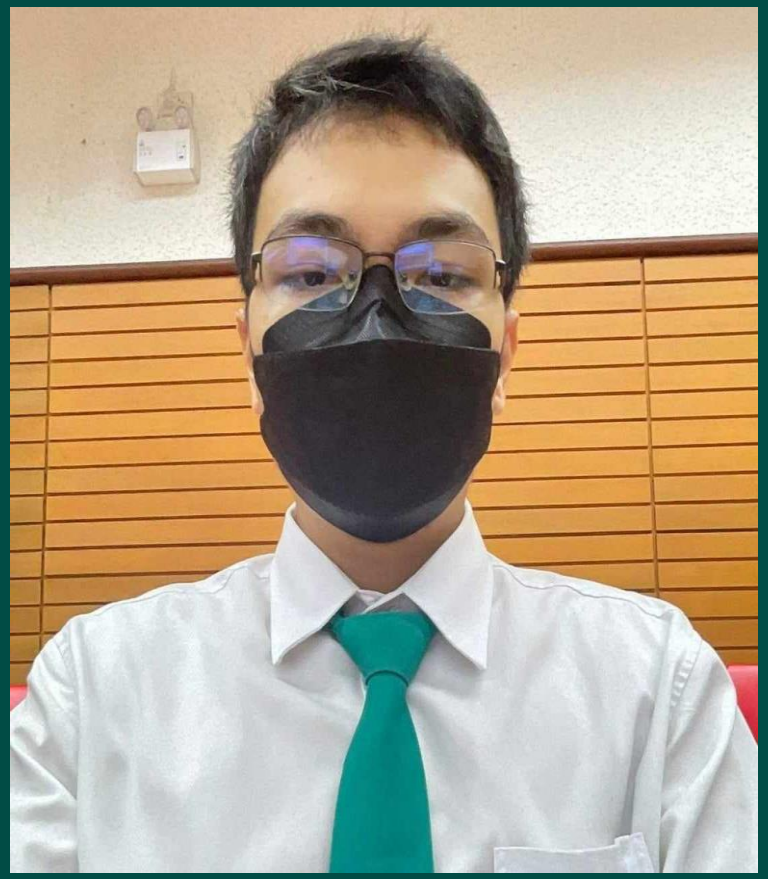
Named Constructor in dart

Dart Tutorial

Silpakorn University



Tutorial

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Principles of Programming Languages

Named Constructors

IN

Named Constructors

Method Overloading ✗

Optional Parameter ✓

Named Constructors

syntax

Named Constructors

syntax

```
Class_name.constructor_name(param_list)
```

Named Constructors

```
class ClassName {
  // default constructor
  ClassName(parameters) {
    // Initialization logic
  }

  // Named constructor
  ClassName.namedConstructor(parameters) {
    // Initialization logic
  }
}
```

Default

Named

syntax

Named Constructors

Create object

```
ClassName instance1 = ClassName(parameters);  // default constructor
ClassName instance2 = ClassName.namedConstructor(parameters);   // named constructor
```

Named Constructors

Example

Named Constructors

class cat

Example

Named Constructors

class cat

Attribute

String species? ;

String furColor = “hair less”;

Int? price;

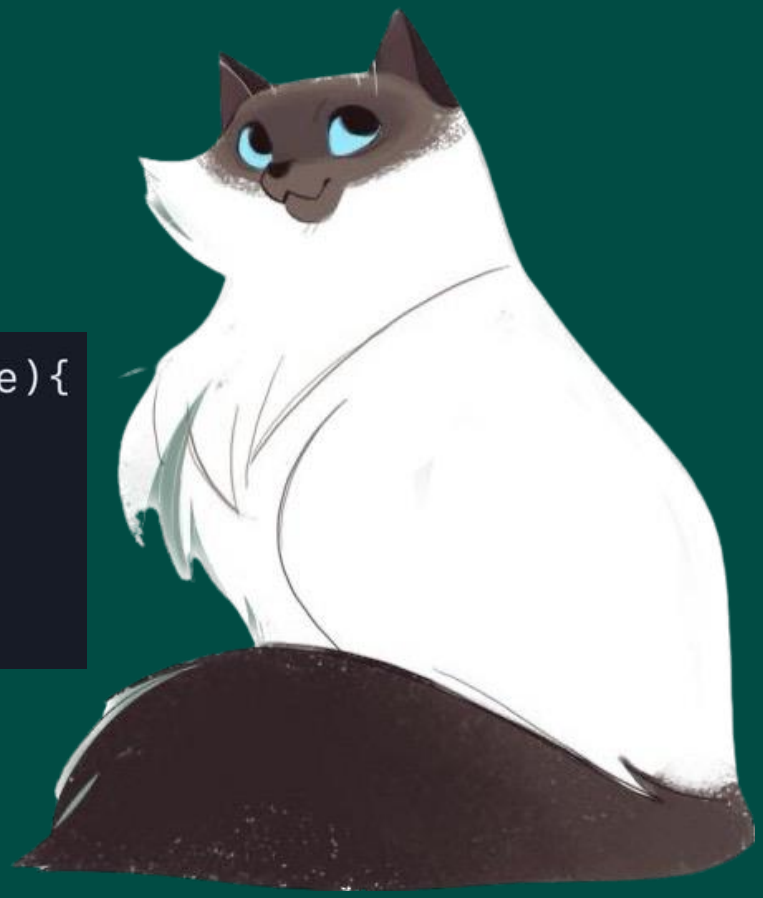
Boolean law = true;

Example

Named Constructors

class cat

```
cat(String species,String furColor,int price){
    this.species = species;
        this.furColor = furColor;
        this.price = price;
}
```



Example

Named Constructors

class cat

```
cat.sphinx(int price){
    this.species = "sphinx";
        this.price = price;
}
```

Example

Named Constructors

```
cat.caracal(int price){
    this.species = "caracal";
        this.furColor = "orange";
        this.price = price;
        this.law = false;
}
```

class cat

Example

Named Constructors

class cat

```
class cat{
    String? species;
        String furColor ="hair less";
        int? price;
        bool law = true;

        cat(String species,String furColor,int price){
            this.species = species;
                this.furColor = furColor;
                this.price = price;
        }
        cat.sphinx(int price){
            this.species = "sphinx";
                this.price = price;
        }
        cat.caracal(int price){
            this.species = "caracal";
                this.furColor = "orange";
                this.price = price;
                this.law = false;
        }
        void printCat(){
            print("Species : $species");
            print("Fur Color : $furColor");
            print('Price : $price');
            print("Law : $law\n");
        }
}
```

Example

Named Constructors

class cat

```
void main(){
    cat persian = new cat("persian","white",400000);
    cat sphinx = new cat.sphinx(3000000);
    cat caracal = new cat.caracal(700000);

    persian.printCat();
    sphinx.printCat();
    caracal.printCat();
}
```

Example

Named Constructors

class cat

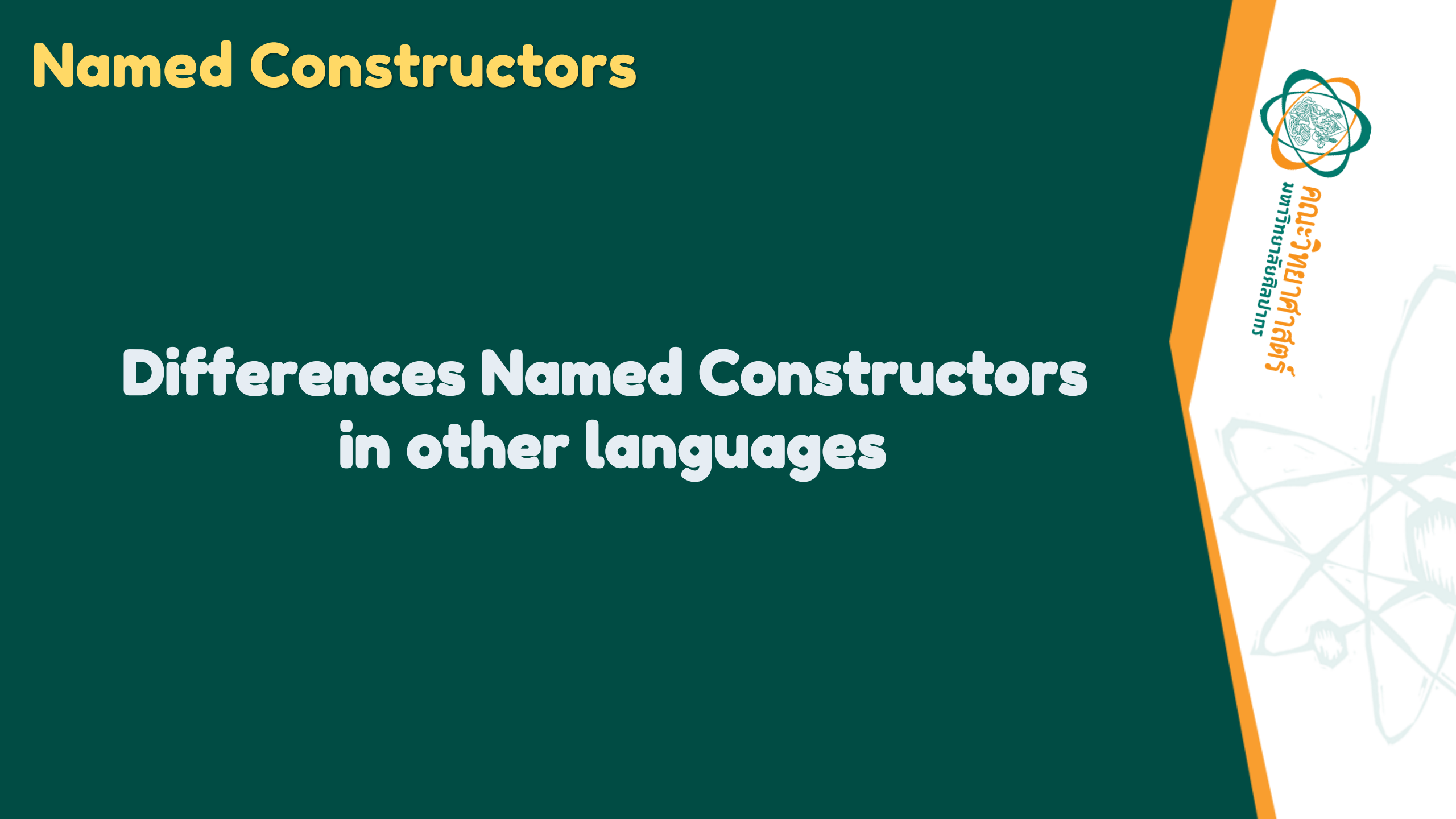
```
Species : persian
Fur Color : white
Price : 400000
Law : true
```

```
Species : sphinx
Fur Color : hair less
Price : 3000000
Law : true
```

```
Species : caracal
Fur Color : orange
Price : 700000
Law : false
```

Example

Differences Named Constructors in other languages



Named Constructors

VS

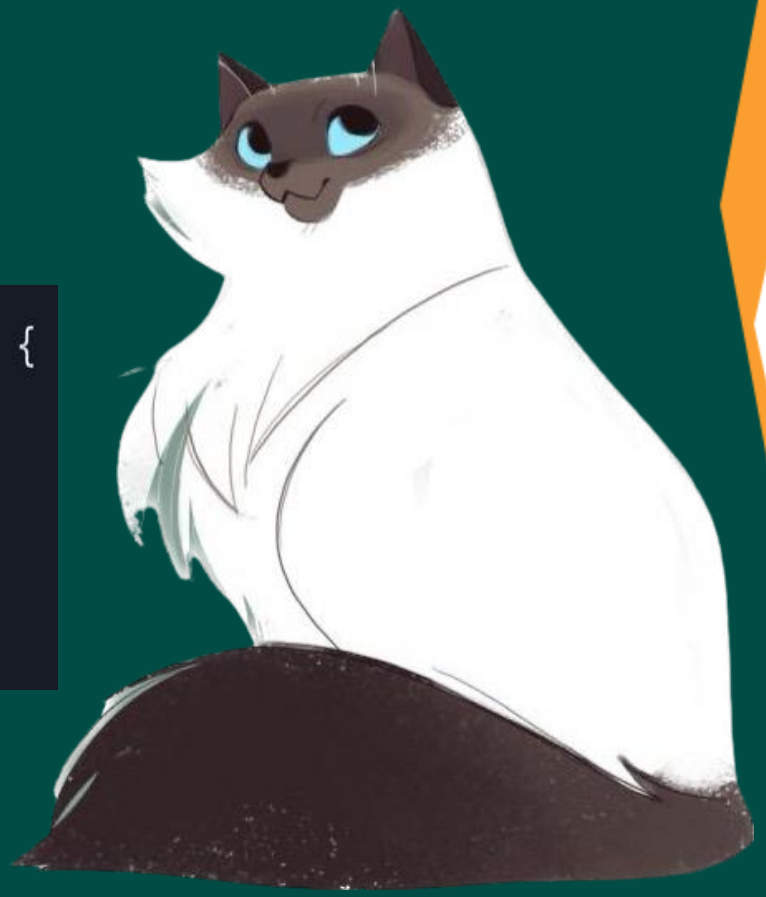
static factory methods

Differences

static factory methods

class cat

```
public cat(String species, String furColor, int price) {
    this.species = species;
    this.furColor = furColor;
    this.price = price;
}
```



Differences

static factory methods

class cat

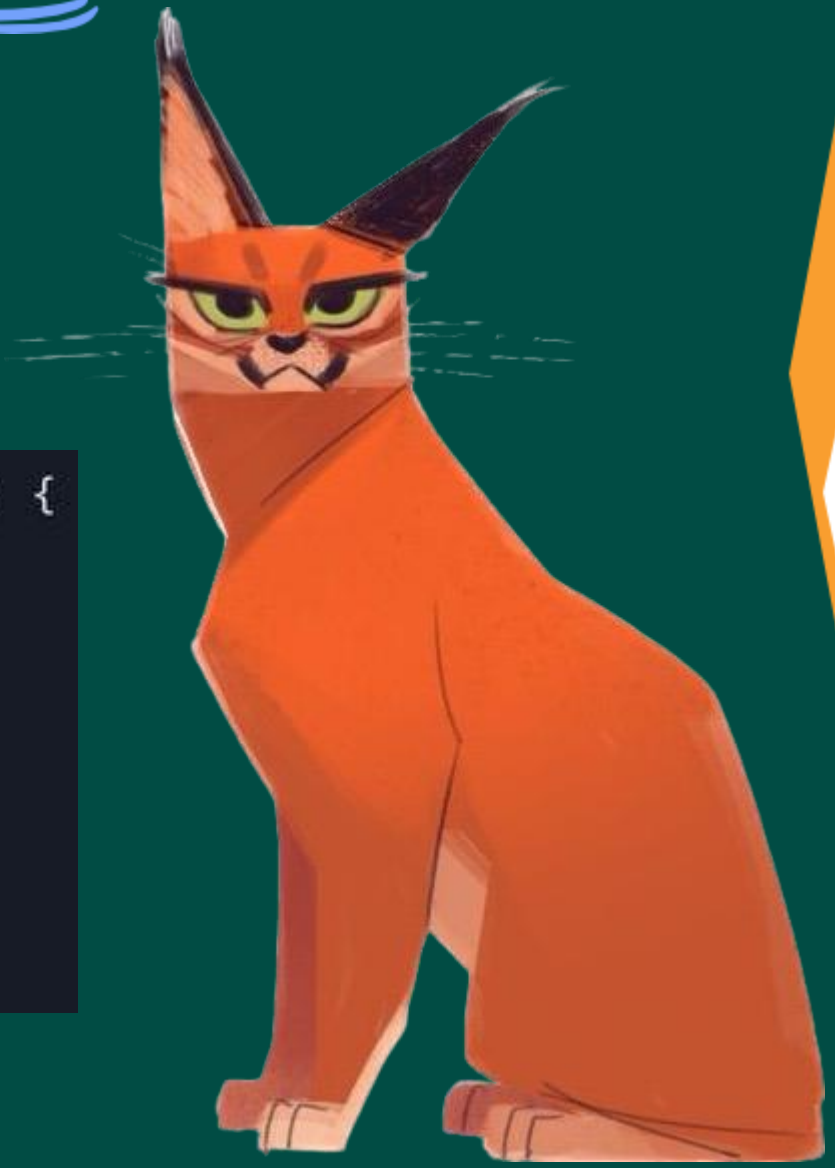
```
public static cat sphinx(int price) {
    cat cat = new cat();
    cat.species = "sphinx";
    cat.price = price;
    return cat;
}
```

Differences

static factory methods

```java
public static cat caracal(int price) {
    cat cat = new cat();
    cat.species = "caracal";
    cat.furColor = "orange";
    cat.price = price;
    cat.law = false;
    return cat;
}
```

class cat



Differences

Thank you for watching

Reference

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GitHub