Universidad Autónoma del Estado de México
Centro Universitario UAEM Atlacomulco

Licenciatura en Ingeniería en Computación

Periodo Educativo 2024ª

Actividad:

A2_ Cuadro sinóptico

Materia:

Paradigmas de la programación

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Polymorphism

Definition

- Definitils a fundamental concept in object oriented programming.

- It refers to the ability of different objects to respond differently to the same message or method.

Types

Overload Polymorphism:
Defines multiple methods with the same name but with different types or amounts of parameters within the same class.

```java
class Operaciones {
    int suma(int a, int b) {
        return a + b;
    }

    double suma(double a, double b) {
        return a + b;
    }
}
```

Parametric Polymorphism:
Defines generic functions or classes that can operate with any type of datathe same class.

```java
class Caja<T> {
    private T objeto;

    public void agregar(T objeto) {
        this.objeto = objeto;
    }

    public T obtener() {
        return objeto;
    }
}
```

Coercive polymorphism:
It refers to the ability of a programming language to automatically convert one type of data into another in appropriate situations.

```python
def suma(a, b):
    return a + b

resultado = suma(5, 3.0)
```

Polymorphism by Nullification:
It is the ability of a subclass to provide a specific implementation of a method that is already defined in its superclass.

```java
class Vehiculo {
    void arrancar() {
        System.out.println("El vehículo arranca");
    }
}

class Coche extends Vehiculo {
    @Override
    void arrancar() {
        System.out.println("El coche arranca");
    }
}
```

Referencias

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