CLASS IN DART

Class In Dart

In object-oriented programming, a class is a blueprint for creating objects. A class defines the properties and methods that an object will have. For example, a class called **Dog** might have properties like **breed**, **color** and methods like **bark**, **run**.

Declaring Class In Dart

You can declare a class in dart using the **class** keyword followed by class name and braces {}. It's a good habit to write class name in **PascalCase**. For example, **Employee**, **Student**, **QuizBrain**, etc.

Syntax

```
class ClassName {
// properties or fields
// methods or functions
}
```

In the above syntax:

- The **class** keyword is used for defining the class.
- **ClassName** is the name of the class and must start with capital letter.
- Body of the class consists of **properties** and **functions**.
- **Properties** are used to store the data. It is also known as **fields** or **attributes**.
- **Functions** are used to perform the operations. It is also known as **methods**.

Example 1: Declaring A Class In Dart

In this example below, there is class **Animal** with three properties: **name**, **numberOfLegs**, and **lifeSpan**. The class also has a method called **display**, which prints out the values of the three properties.

```
class Animal {
  String? name;
  int? numberOfLegs;
  int? lifeSpan;

  void display() {
    print("Animal name: $name.");
    print("Number of Legs: $numberOfLegs.");
    print("Life Span: $lifeSpan.");
  }
}
```

> **ℹ Info**
>
> **Note: This program will not print anything** because we have not created any object of the class. You will learn about the object later. The **?** is used for null safety. You will also learn about null safety later.

Example 2: Declaring A Person Class In Dart

In this example below, there is class **Person** with four properties: **name**, **phone**, **isMarried**, and **age**. The class also has a method called **displayInfo**, which prints out the values of the four properties.

```
class Person {
  String? name;
  String? phone;
  bool? isMarried;
  int? age;

  void displayInfo() {
    print("Person name: $name.");
    print("Phone number: $phone.");
    print("Married: $isMarried.");
    print("Age: $age.");
  }
}
```

Example 3: Declaring Area Class In Dart

In this example below, there is class **Area** with two properties: **length** and **breadth**. The class also has a method called **calculateArea**, which calculates the area of the rectangle.

```dart
class Area {
  double? length;
  double? breadth;

  double calculateArea() {
    return length! * breadth!;
  }
}
```

Example 4: Declaring A Student Class In Dart

In this example below, there is class **Student** with three properties: **name**, **age**, and **grade**. The class also has a method called **displayInfo**, which prints out the values of the three properties.

```dart
class Student {
  String? name;
  int? age;
  int? grade;

  void displayInfo() {
    print("Student name: $name.");
    print("Student age: $age.");
    print("Student grade: $grade.");
  }
}
```

Key Points

- The class is declared using the **class** keyword.
- The class is a blueprint for creating objects.
- The class body consists of properties and methods.
- The properties are also known as fields, attributes, or data members.
- The methods are also known as behaviors, or member functions.

Challenge

Create a class **Book** with three properties: **name**, **author**, and **price**. Also, create a method called **display**, which prints out the values of the three properties.

Video

Watch our video on class in Dart.