CLASS AND OBJECTS IN DART

What is Class

A class is a blueprint for creating objects. A class defines the properties and methods that an object will have. If you want to learn more about class in Dart, you can read class in dart.

What is Object

An object is an instance of a class. You can create multiple objects of the same class. If you want to learn more about an object in Dart, you can read object in dart.

Example Of A Class & Object 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.

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

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

void main(){
  // Here animal is object of class Animal.
  Animal animal = Animal();
  animal.name = "Lion";
  animal.numberOfLegs = 4;
  animal.lifeSpan = 10;
  animal.display();
```

```
  }
```

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Example 2: Find Area Of Ractangle Using Class and Objects

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

```dart
class Rectangle{
  //properties of rectangle
  double? length;
  double? breadth;

  //functions of rectangle
  double area(){
    return length! * breadth!;
  }
}

void main(){
  //object of rectangle created
  Rectangle rectangle = Rectangle();

  //setting properties for rectangle
  rectangle.length=10;
  rectangle.breadth=5;

  //functions of rectangle called
  print("Area of rectangle is ${rectangle.area()}.");
}
```

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Example 3: Find Simple Interest Using Class and Objects

In this example below there is class **SimpleInterest** with three properties: **principal**, **rate**, and **time**. The class also has a method called **interest**, which calculates the simple interest.

```dart
class SimpleInterest{
  //properties of simple interest
  double? principal;
  double? rate;
  double? time;

  //functions of simple interest
  double interest(){
    return (principal! * rate! * time!)/100;
  }
}
void main(){
  //object of simple interest created
  SimpleInterest simpleInterest = SimpleInterest();

  //setting properties for simple interest
  simpleInterest.principal=1000;
  simpleInterest.rate=10;
  simpleInterest.time=2;

  //functions of simple interest called
  print("Simple Interest is ${simpleInterest.interest()}.");
}
```

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Challenge

Create class Home with properties **name**, **address**, **numberOfRooms**. Create a method called **display** which prints out the values of the properties. Create an object of the class **Home** and set the values of the properties. Call the method **display** to print out the values of the properties.

Video

Watch our video on class and object in Dart.