Object-Oriented Programming (OOP)

**Object-Oriented Programming** (OOP) is a way of writing computer programs and It helps in organizing code, promoting recycle and reuse code, and making programs easier to understand and maintain.

A **class** is a *blueprint* of an *object* and describes which *properties* (variables of the class) and *methods* (functions of a class) an object has.

* A **blueprint** is a detailed plan or design that shows the structure, components and specifications of something before it is built, produced or executed. The blueprint serves as a guide to build/create the work accurately to specifications. It provides a detailed overview of what needs to be built before the project actually begins.
* A **method**, they are also known as **functions**, is a **block of code which only runs when it is called**. You can pass data, known as parameters, into a method.
* **Properties** are like special containers that hold information about an object. They help you control how you read and change this information. For example, if you have a Person object, you might have a property called Name to store the person's name.

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Automatisch gegenereerde beschrijvingAn **object** is like a thing or an item in the real world. It can represent anything, like a person, a car, or a book. Each object has its own unique characteristics (called *properties*) and can do actions (called *methods*). For instance, a person object might have properties like name and age, and methods like eat and sleep.

**Note**:

* We use the dot **syntax (.)** to **access variables/fields inside a class** (object.color). You will learn more about fields in the next chapter.