**What is object-oriented programming?**

Object-oriented programming (OOP) is a computer programming model that organizes software design around data, or objects, rather than functions and logic. An object can be defined as a data field that has unique attributes and behavior.

OOP focuses on the objects that developers want to manipulate rather than the logic required to manipulate them. This approach to programming is well-suited for programs that are large, complex and actively updated or maintained. This includes programs for manufacturing and design, as well as mobile applications; for example, OOP can be used for manufacturing system simulation software.

The organization of an object-oriented program also makes the method beneficial to collaborative development, where projects are divided into groups. Additional benefits of OOP include code reusability, scalability and efficiency.

The first step in OOP is to collect all of the objects a programmer wants to manipulate and identify how they relate to each other

Examples of an object can range from physical entities, such as a human being who is described by properties like name and address, to small computer programs

Once an object is known, it is labeled with a class of objects that defines the kind of data it contains and any logic sequences that can manipulate it. Each distinct logic sequence is known as a method. Objects can communicate with well-defined interfaces called messages.

- why should I use it?

**advantages of object-oriented programming:**

1. Troubleshooting is easier with the OOP language
2. Code Reusability
3. Productivity
4. Data Redundancy
5. Code Flexibility
6. Solving problems
7. Security