Object-oriented design is a software design methodology that focuses on the use of objects, which are instances of classes that encapsulate data and behavior.

Object-oriented design is used in software development to create modular, scalable, and maintainable software systems.

In object-oriented design, the software system is broken down into a collection of objects, each with its own data and behavior. These objects communicate with each other by sending messages, which are method calls on the objects.

The process of object-oriented design typically::

1. Identify the objects: This involves identifying the objects that make up the software system, as well as their attributes and behaviors.

2. Define the classes: This involves defining the classes that will be used to create the objects, as well as their relationships and inheritance hierarchies.

3. Define the methods: This involves defining the methods that will be used to implement the behavior of the objects.

4. Implement the objects: This involves implementing the objects in code, using the classes and methods that were defined in the previous steps.

Object-oriented design can be evaluated using a variety of metrics, which can help measure the quality and maintainability of the software system.

Some common metrics used in object-oriented design:

1. Coupling: This measures the degree to which different objects in the system are dependent on each other. Low coupling is desirable, as it makes the system easier to modify and maintain.

2. Cohesion: This measures the degree to which the methods in a class are related to each other. High cohesion is desirable, as it makes the class more focused and easier to understand.

3. Inheritance depth: This measures the depth of the inheritance hierarchy in the system. Shallow inheritance hierarchies are desirable, as they make the system easier to understand and modify.

4. Method complexity: This measures the complexity of the methods in the system. Low method complexity is desirable, as it makes the system easier to understand and modify.

By using these metrics and others, developers can ensure that their object-oriented designs are of high quality, maintainable, and scalable.