

The object-oriented programming model has been criticized by developers for multiple reasons. The largest concern is that OOP overemphasizes the data component of software development and does not focus enough on computation or algorithms. Additionally, OOP code may be more complicated to write and take longer to compile.

Alternative methods to OOP include:

- **Functional programming.** This includes languages such as Erlang and Scala, which are used for telecommunications and fault tolerant systems.
- **Structured or modular programming.** This includes languages such as PHP and C#.
- **Imperative programming.** This alternative to OOP focuses on function rather than models and includes C++ and Java.
- **Declarative programming.** This programming method involves statements on what the task or desired outcome is but not how to achieve it. Languages include Prolog and Lisp.
- **Logical programming.** This method, which is based mostly in formal logic and uses languages such as Prolog, contains a set of sentences that express facts or rules about a problem domain. It focuses on tasks that can benefit from rule-based logical queries.

Most advanced programming languages enable developers to combine models, because they can be used for different programming methods. For example, JavaScript can be used for OOP and functional programming.

Developers who are working with OOP and microservices can address common microservices issues by applying the principles of OOP.