

Benefits of OOP include:

- **Modularity.** Encapsulation enables objects to be self-contained, making troubleshooting and collaborative development easier.
- **Reusability.** Code can be reused through inheritance, meaning a team does not have to write the same code multiple times.
- **Productivity.** Programmers can construct new programs quicker through the use of multiple libraries and reusable code.
- **Easily upgradable and scalable.** Programmers can implement system functionalities independently.
- **Interface descriptions.** Descriptions of external systems are simple, due to message passing techniques that are used for objects communication.
- **Security.** Using encapsulation and abstraction, complex code is hidden, software maintenance is easier and [internet protocols](#) are protected.
- **Flexibility.** Polymorphism enables a single function to adapt to the class it is placed in. Different objects can also pass through the same interface.