**Question-1) Define Object Oriented Programming Language?**

**O**bject-**o**riented **p**rogramming (**OOP**) refers to a type of computer programming (software design) in which [programmers](https://www.webopedia.com/TERM/P/programmer.html) define the [data type](https://www.webopedia.com/TERM/D/data_type.html) of a [data structure](https://www.webopedia.com/TERM/D/data_structure.html), and also the types of operations ([functions](https://www.webopedia.com/TERM/F/function.html)) that can be applied to the data structure.

In this way, the data structure becomes an [object](https://www.webopedia.com/TERM/O/object.html) that includes both [data](https://www.webopedia.com/TERM/D/data.html) and functions. In addition, programmers can create relationships between one object and another. For example, objects can inherit characteristics from other objects.

Question-2) List down the Benefits of OOP?

OOP has become a fundamental part of software development. Thanks to the ubiquity of languages like Java and C++, you can’t develop software for mobile unless you understand the object-oriented approach. The same goes for serious web development, given the popularity of OOP languages like Python, PHP and Ruby.

Getting your head around the idea of object-oriented programming can be challenging for some IT professionals. You may be wondering why you even need objects when you could use the top-down approach of traditional structured programming in languages like Visual Basic.

1. Modularity for easier troubleshooting

## Reuse of code through inheritance

## Flexibility through polymorphism

## Effective problem solving

## Question-3) Differentiate between function and method?

A function is a piece of code that is called by name. It can be passed data to operate on (i.e. the parameters) and can optionally return data (the return value). All data that is passed to a function is explicitly passed. A method is a piece of code that is called by a name that is associated with an object.