Search the TechTarget Network

More and more organizations looking to hop on the cloud wagon are facing application and data integration roadblocks. Getting around them is difficult but possible – and a step-by-step approach can help.

Start Download

The programming challenge was seen as how to write the logic, not how to define the data. Object-oriented programming takes the view that what we really care about are the objects we want to manipulate rather than the logic required to manipulate them. Examples of objects range from human beings (described by name, address, and so forth) to buildings and floors (whose properties can be described and managed) down to the little <u>widgets</u> on a computer desktop (such as buttons and scroll bars).

The first step in OOP is to identify all the objects the programmer wants to manipulate and how they relate to each other, an exercise often known as <u>data modeling</u>. Once an object has been identified, it is generalized as a class of objects (think of Plato's concept of the "ideal" chair that stands for all chairs) which defines the kind of data it contains and any logic sequences that can manipulate it. Each distinct logic sequence is known as a <u>method</u>. Objects communicate with well-defined interfaces called *messages*.

The concepts and rules used in object-oriented programming provide these important benefits:

- The concept of a data class makes it possible to define subclasses of data objects that share some or all of the main class characteristics.
 Called inheritance, this property of OOP forces a more thorough data analysis, reduces development time, and ensures more accurate coding.
- Since a class defines only the data it needs to be concerned with, when an instance of that class (an object) is run, the code will not be able to
 accidentally access other program data. This characteristic of data hiding provides greater system security and avoids unintended data
 corruption.
- The definition of a class is reuseable not only by the program for which it is initially created but also by other object-oriented programs (and, for this reason, can be more easily distributed for use in networks).
- · The concept of data classes allows a programmer to create any new data type that is not already defined in the language itself.

Simula was the first object-oriented programming language. <u>Java, Python, C++</u>, <u>Visual Basic .NET</u> and <u>Ruby</u> are the most popular OOP languages today. The Java programming language is designed especially for use in distributed applications on corporate networks and the Internet. Ruby is used in many Web applications. Curl, Smalltalk, Delphi and Eiffel are also examples of object-oriented programming languages.





E-Handbook

Mobile app test and development address the surge in mobile users



OOPSLA is the annual conference for Object-Oriented Programming Systems, Languages and Applications.

This was last updated in August 2008

Year State State

- C++ programming language object-oriented programming (OOP) in C++
- What is the difference between object oriented and service oriented programming?
- The J2EE learning guide
- Our favorite programming cheat sheets
- Using agile and object-oriented methods SOA questions answered

Related Terms

application lifecycle management (ALM)

Application lifecycle management (ALM) is the supervision of a software application from its initial planning through retirement.... See complete definition 0

application program interface (API)

An application program interface (API) is code that allows two software programs to communicate with each other. See complete definition 10

open API (public API)

An open API, also known as a public API, is an application programming interface that allows the owner of a network-accessible ... See complete definition 10

→ Dig Deeper on Application integration architecture

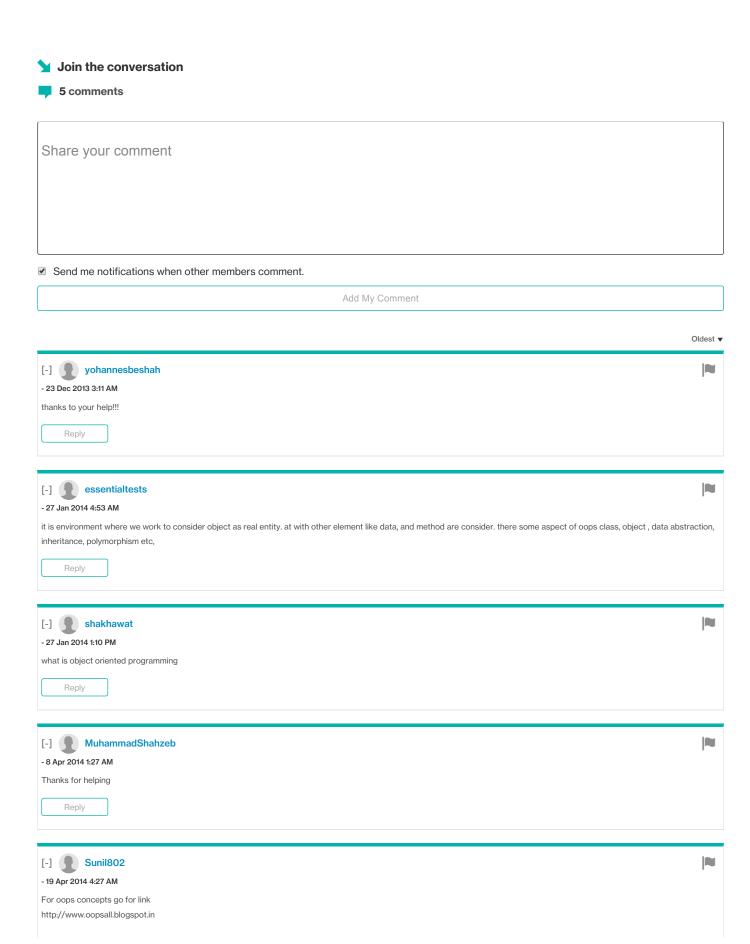
ALL NEWS GET STARTED EVALUATE MANAGE PROBLEM SOLVE

Why DevOps processes and continuous integration go hand-in-hand

open API (public API)

How will microservices development benefit enterprise architecture?







SearchSoftwareQuality

Here's why IoT testing is really going to matter to QA pros

It's easy to ignore the challenge of IoT and testing if that's not your job, but that's soon going to change. Expert Jennifer ...

Enterprises have a new open source business model: Inner source

The open source model has been so effective that some organizations are making it their own -- literally. Here's how inner source...

About Us Meet The Editors Contact Us Privacy Policy Advertisers Business Partners Media Kit Corporate Site

Contributors Reprints Archive Site Map Answers E-Products Events Features

Guides Opinions Photo Stories Quizzes Tips Tutorials Videos

All Rights Reserved,
Copyright 2001 - 2017, TechTarget