



## **Object Oriented Programming Lab**

Object-oriented programming (OOP) is a programming paradigm based on the concept of "objects", which may contain data, in the form of fields, often known as attributes; and code, in the form of procedures, often known as methods. A feature of objects is that an object's procedures can access and often modify the data fields of the object with which they are associated (objects have a notion of "this" or "self"). In OOP, computer programs are designed by making them out of objects that interact with one another. There is significant diversity of OOP languages, but the most popular ones are class-based, meaning that objects are instances of classes, which typically also determine their type

Many of the most widely-used programming languages (such as C++, Object Pascal, Java, Python etc.) are multi-paradigm programming languages that support object-oriented programming to a greater or lesser degree, typically in combination with imperative, procedural programming. Significant object-oriented languages include Java, C++, C#, Python, PHP, Ruby, Perl, Object Pascal, Objective-C, Dart, Swift, Scala, Common Lisp, and Smalltalk.

### **SCOPE OF OBJECT ORIENTED PROGRAMMING**

- Object-oriented programming (OOP) is a programming paradigm that uses abstraction to create models based on the real world
- Object-oriented programming uses several techniques from previously established paradigms, including modularity, polymorphism, and encapsulation
- Today, many popular programming languages (such as Java, JavaScript, C#, C++, Python, PHP, Ruby and Objective-C) support OOP