|  |  |
| --- | --- |
| Procedural Programming | Object Oriented Programming |
| * Can be described as a book with words on the page telling people what to do * List of instructions to tell the computer what to do step by step * Rely on procedures, routines, or subroutines * Programs are divided into small parts called functions * Contain computational steps to be carried out * Top-down languages * Provide a step by step instructions on how to do something * Include procedures, records, modules,… * Not reusable code * Individually accessed as the program is executed * Does not have a proper way of hiding data so it is less secure * Based on the unreal world * Ex: Cobol, Fortran, and C | * Can be described as a book with pictures like a class that has a name, and other characteristics * All computations are carried out using objects * Objects: component of a program that knows how to perform certain actions and interact with other elements in the program * Objects contain data in the form of attributes and code in the form of methods * Objects are instances of classes * Include method, object, class,.. * Methods can be reused and recycled * Bottom-up approach * Objects and classes can be referenced throughout the program * Provide hiding data so it is more secure * Based on the real world * Ex: C++, Java, Python, C# |

.