

Glossary of Terms

Algorithm

A step-by-step procedure or formula for solving a problem or completing a task, especially by a computer.

Abstraction

The process of hiding implementation details and showing only the essential features of an object or system.

Recursion

A programming technique where a function calls itself to solve smaller instances of the same problem until reaching a base case.

Also refers to the mathematical concept where a function is defined in terms of itself with modified parameters.

Polymorphism

The ability of objects or functions to take multiple forms, allowing the same operation to behave differently for different types.

Encapsulation

The bundling of data and methods into a single unit (class) while hiding internal details and protecting data from unauthorized access.

Interface

A contract that defines a set of methods and properties that implementing classes must provide, enabling consistent interaction with objects.