

Programming Paradigms: Different approaches to problem-solving in programming, each with its own philosophy and techniques.

Imperative Programming: A paradigm where programs are built by explicitly stating how to change the program's state through a sequence of instructions.

Procedural Programming: A type of imperative programming that organizes code into procedures (or functions) for reusability and modularity.

Object-Oriented Programming (OOP): A paradigm that structures programs around data, or objects, and their interactions.

Parallel Processing: A technique that divides a program's instructions among multiple processors to speed up execution.

Declarative Programming: A paradigm where programs express the desired outcome without specifying the steps to achieve it.

Logic Programming: A declarative paradigm that uses logical statements and rules to represent knowledge and solve problems.

Functional Programming: A declarative paradigm that treats computation as the evaluation of mathematical functions, avoiding changes in state and mutable data.

Data-Driven/Database Programming: A paradigm where program logic is determined by data, often used in database applications for data manipulation and retrieval.