**Functional Programming**: Functional programming is a programming paradigm that is based on the concept of functions. In functional programming, functions are treated as first-class citizens, which means that they can be passed as arguments to other functions, returned as values, and stored in variables. Functional programming emphasizes the use of immutable data structures and avoids changing state as much as possible. This paradigm is well-suited for mathematical computations and data manipulation.

**Structural Programming**: Structural programming is a programming paradigm that focuses on dividing a program into smaller, more manageable parts called functions or procedures. These functions or procedures are designed to perform specific tasks within the program, and they are organized in a hierarchical structure. Structural programming follows a top-down approach, where the main program calls the functions or procedures in a specific order. This paradigm is well-suited for creating programs that are easy to understand, test, and maintain.

**Object-Oriented Programming**: Object-oriented programming (OOP) is a programming paradigm that is based on the concept of objects. Objects are instances of classes, which are templates that define the properties and behaviors of objects. In OOP, the focus is on modeling real-world objects and their interactions. OOP emphasizes encapsulation, inheritance, and polymorphism. Encapsulation means that the implementation details of an object are hidden from the outside world. Inheritance allows classes to inherit properties and behaviors from other classes. Polymorphism allows objects to take on different forms depending on the context.

**Procedural Programming**: Procedural programming is a programming paradigm that is based on the concept of procedures or functions. In procedural programming, the focus is on writing a series of procedures or functions that perform specific tasks. The main program calls these procedures or functions in a specific order to achieve the desired result. Procedural programming follows a top-down approach, similar to structural programming. This paradigm is well-suited for creating programs that are simple and easy to understand.