Procedural programming paradigms are based on calling procedures/functions. Each procedure contains many lines of code which the computer will then execute. Procedures may call on preceding procedures sequentially so the program can execute successfully.

Procedural programming is useful in that a complex problem can be troubleshooted by dividing it into smaller and more manageable blocks/procedures of code, known as a top-down approach to problem solving, then the main( ) function can call upon each reusable procedure created when they are needed.

The C programming language is low-level and it makes use of the procedural programming paradigm. The procedures can call one another in a hierarchical top-down style, and also procedures may call other pre-established procedures from within one procedure, via for loops and while loops.

In the case of this assignment, setting up an online shop can be daunting when you have to think through what parts of the online shop are required. The top-down approach ensures the process of setting up shop is broken down into manageable procedures which can call upon one another when required.

Data structures, or structs, are established at the top, these are data containers containing applicable variables and values, such as a Product struct with product’s name and price.

Procedures can then reference these structs and the variables within to implement in the procedures, for example, when printing products, the printProduct( ) procedure can call on the Product struct and titled p within: void printProduct(struct Product p), so the names and prices of all products are passed into printf with args: Name %s, Price %.2f, p.name, p.price.

Procedural programming in both C and Python share similarities, syntax being the only difference, for example, structs and dataclasses both house data and variables in data structures, voids and defs both house procedures.

The Python programming language is high-level, and it can make use of both procedural and object-oriented procedures in programming.

Object-oriented programming involves breaking down a program into classes and objects. Classes are used in OOP to create a specific object, in this object, unique values or attributes can be defined.

**References:**

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