**Multi Paradigm Programming Project**

**Procedural Programming language:**

One of the most common programming methods is Procedural programming which follows a set of commands in an order. Fundamentally, the procedural code is the one that directly instructs a device on how to finish a task in logical steps.[2]

As its name stands out, procedural programming style involves writing a list of steps in an order that should be followed by the program/computer to finish a task. This approach is called top-down approach and that treats data and procedures as two different entities.

With this programming usually we start with main functions and this part holds the main procedures to be used or called to do the task. In order to do the tasks, the program then divided into small components that will solve the main function call.

A programmer can import Pre-defined functions written in high level languages from the library or the registry instead of re writing the functionality which saves costs and time.

A set of instructions can be grouped together into a re-usable element called procedures which can then be called when needed during program execution. It also known as routines, subroutines or functions. We can include parameters to these procedures which can be done through ‘Pass by value’, ‘pass by reference’, ‘pass by result’, ‘pass by value-result' and ‘pass by the name’.

**Key features of Procedural Programming language:**

1. Predefined functions
2. Programming libraries
3. Local and Global variables
4. Procedures and Parameter passing
5. Modularity

**Advantages:**

* Procedural Programming is excellent for general-purpose programming and easy to learn and implement.
* The code can be reused in different parts of the program, without the need to copy it
* The program flow can be tracked easily
* It consumes less memory of the computer
* It is easier for tracking the flow of the codes

**Disadvantage:**

* It focuses on functions rather than data
* While preparing large program, it is difficult to identify the usage of global data
* Even though global data is easier handle it is error prone and very cost effective when it comes to maintenance and enhancements
* The modification of global data required modification of all of the functions which are using the global data
* It is also very difficult to track the errors when the program has too many procedures and calls.

**Procedural programming key features used in C and Python program:**

Explain it with examples

**Analysis of similarities:**

**Analysis of differences:**

Reference:

1. Structured programming, <https://www.techopedia.com/definition/16413/structured-programming>
2. Procedural Programming, <https://hackr.io/blog/procedural-programming>
3. OOP vs Procedural Programming, <https://study.com/academy/lesson/object-oriented-programming-vs-procedural-programming.html>