Problem Solving With C - UE24CS151B

Callback in C

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1. Points to Discuss

2. Introduction

3. Function Pointer/ Pointer to function

4. Demo of C Callback

Points to Discuss!!!

- How to extend the features of one function using another one? - What is the method used if one function communicates with the other through parameter?
- How to have one common method to develop libraries and event handlers for many programming languages?
- How redirect page action is performed for the user based on one click action?

Introduction

- Any executable code that is passed as an argument to other code, which is expected to call (execute) the argument at a given time.

- In simple language, if a function name is passed to another function as an argument to call it, then it will be called as a Callback function.

- A callback function has a specific action which is bound to a specific circumstance.

- A callback function is an important element of GUI in C programming

- In C, a callback function is a function that is called through a function pointer/pointer to a function.

Function Pointer/ pointer to function.

- Points to a code, not data and it stores the start of the executable code
- Used in reducing the redundancy
- Think about the difference between below statements

```
int *a1(int, int, int); // a1 is a function which takes three int arguments and returns a pointer to int.
int (*p)(int, int, int); // p is a pointer to a function which takes three int as parameters and returns an int
```

- Coding Examples

Demo of C Callback

- Simple Coding example to demo Callback
- Mimic map, filter and reduce function of python in C using user defined function

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THANK YOU

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