Daily Assessment formal

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course: C programming
Topic: Basic concept
- conditional & loops
- functions, Array & pointer
- strings & fun pointer

Github
repository: jyoti-courses

Report

C programming

→ C programming basic commands to write C program

→ A simple C program with output & explanation

→ steps to write C program & get the output

→ creation, compilation & execution of a C program

→ How to install C compiler & IDE tools to run C programming codes.

→ Basic structure of C program

→ Ex of C programs to compare all sections

→ Description for each section of the C program

→ C programs with definitions & output - C program for prime number, factorial, fibonacci series, palindrome, swapping of 2 nos, with & without temp variable, sample calculator program & sample bank application program etc

→ if you want to create, compile & execute C programs by your own, you have to install C compiler in your machine. then you can start to execute your own C programs in your machine

→ you can refer below link for how to install C compiler & compile & execute C programs in your machine.

→ once c compiler is installed in your machine, you can create, compile & execute c programs as shown in below link

→ If you dont want to install c|c++ compilers in your machine, you can refer online compilers which will compile & execute c|c++

Conditionals & loops

→ if statement: This is the most simple form of the branching statements. it takes an expression in parante & an statement or block of statements. if he expression is true

→ switch statement. The switch statement is much like a nested if else statement. its mostly a matter of preference which you use. switch statement can be slightly more efficient & easier to read.

→ using break keyword: If a condition is met in switch case then execution continues on into the next case clause also if it is not explicitly specified that the execution should exit the switch statement

→ while loop: the most basic loop in c is the while loop.
A while statement is like a
repeating if statement.

→ for loop → for loop is similar to while, its just written differently. for statements are often used to process lists such as range of numbers

→ dowhile loop:
do while is just like a while loop except that the test condition is checked at the end of the loop rather than the start.

break & continue statements

- C provides two commands to control how we loop
- break - exit from loop or switch
- continue - skip iteration of loop

functions: Array & pointers

→ A function is a group of statements that together perform a task. every c program has at least one fun which is main() & all the most trivial programs can define additional fun's.

→ you can divide up your code into separate funs. how you divide up your code among different funs is up to you but logically the division is such that each function performs a specific task.

→ A function declaration tells the compiler about a function's name, return type & parameters. A function definition provides the actual body of the fun.

→ All arrays consist of contiguous memory locations. the lowest address corresponds to the first element & the highest address to the last element.

strings & function pointers

→ strings are actually one-dimensional array of characters terminated by a null character "\0". thus a null-terminated string contains the character that comprise the string followed by a null.

→ the following declaration & initialization create a string consisting of the word "Hello". to hold the null character the end of the array. the size of the character array consisting the string is one more than the no of characters in the word "Hello"

→ The first question that may come to your mind is
why would we use pointers
to call a fu$^n$ when we can simply call a function by
its name fun(), that's great question! now imagize the
sort func where you need to sort an array sometimes
you want to order array elements in an descending order
or ascending order. how would you choose; fun
pointers!