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CSCI-A 290

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MINI 1 Assignment

1. Data types in C

First level data type, **4**: **int**, **float**, **double**, **char**

int: Precis (Hoover):

Intending to store whole numbers.

Summary:

Usually storing data type as integer number, also “int” can only store integer. The range of the “int” for 4 bytes it can handle is: -2,147,483,648 to 2,147,483,647 or for 2 bytes it can handle is: -32,767 to 32,767.

float: Precis (Hoover):

Intending to store real numbers.

Summary:

Usually storing data type as real number. “float” can store integer but it will represent as real number such as integer 2 would be resent as 2.000. The range of the “float” cannot be determined due to resenting under decimal points.

double: Precis (Hoover):

Intending to sore real numbers but has twice the precision so that it can store a larger range of numbers.

Summary:

Usually storing data type as real number. Almost same as float. The range of “double” also cannot be determined due to resenting under decimal points.

1. Conditionals in C

Frist level conditional, **1**: **if-else**

“if-else” Precis (Hoover):

Supporting tests for equality (==), inequality (!=), and relative size (>, < , >=, and <=). Also multi conditional can be sued as and (&&) and or (||).

Summary:

“if-else” statement is for conditional distributing. In easy sympathy, it is also called “matching”. Usually the conditions are equality, inequality, or relation size.

1. Loops in C

First level conditional, **3**: **for**, **while**, **do-while**

for: Precis (Hoover):

Intending to be executed a fixed number of iterations, known before the loop is entered. Hence, it is given both a starting condition and an ending condition

Summary:

“for” loop is using for looping when one knows how many times one is going to loop and using the index number.

while: Precis (Hoover):

Intending to be executed an unknown number of iterations. Hence, it is only given an ending condition.

Summary:

“while” loop is using for looping when one does not know how many one is going to loop or infinitely looping.

do-while: Precis (Hoover):

Intending to be executed an unknown number of iterations but will be executed at least once.

Summary:

“do-while” loop is almost same as while loop but it is usually used for unknown number of looping. It also almost same as while loop but the calculation happens at the end of the loop so it always happens at least time looping.

The additional two other URIs provides more details about the data types especially the range of the data types or syntaxes.

Using loops:

“for (var\_start; var\_condition; var\_process)”

“while (var\_condition)”

“do { } while (var\_condition)”

Upon the syntaxes were provided by the additional resources.

Knowing the data types and difference between those lots of data type is very important also knowing when certain data type using for programming also important to know. Most of all recognize the syntax of looping is quite important too.

URL

https://www.cs.indiana.edu/classes/a290-C/homework/HooverChapter1.pdf

https://en.wikipedia.org/wiki/C\_data\_types

http://www.tutorialspoint.com/cprogramming/c\_data\_types.htm