C++ LAUNCHPAD

CODING BLOCKS

Lecture-4

Fundamentals-III

- Programming Fundamentals contd...

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Any doubts?

CODING BLOCKS

Easy?

In the below code, change/add only one character and print '*' exactly 20 times.

```cpp
int main() {
        int i, n = 20;
        for (i = 0; i < n; i--)
                cout << "*";
        return 0;
}
```

Warm up?

Write a program to print following pattern:

```
*   ***   ***   *

**   **   **   **

***   *   *   ***
```

Scope of a variable!

Lets do some more problems

- Count number of characters till you read a $.
- Modify the above to print total number of digits, whitespaces, alphabets and other characters till you read a $.

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cin vs cin.get()

Time to try?

- Write a program to count number of words, characters and lines in the given input. Input is terminated by a '$'

- A person wants to go from origin to a particular location, he can move in only 4 directions(i.e East, West, North, South) but his friend gave him a long route, help a person to find minimum Moves so that he can reach to the destination.
Input – NESNWES
Output – E
You need to print the lexicographically sorted string. Assume the string will have only 'E' 'N' 'S' 'W' characters.
E.g – SSSNEEEW
output – EESS

Time for Arrays!

What is an Array?

An array can be defined as number of memory locations, each of which can store the same data type and which can be references through the same variable name.

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Lets write some code

- Read 10 numbers and print them in reverse order
- Linear Search through the Array
- Find largest number in the Array

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Bubble Sort !

Selection Sort!

What is next class about?

- Arrays contd…

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