

C++ LAUNCHPAD



Lecture-4

Fundamentals-III

- Programming Fundamentals contd...

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Any doubts?

Warm up?

Write a program to print following pattern:

```
*  ***  ***  *
```

```
**  **  **  **
```

```
***  *  *  ***
```

```
#define s ;
```

```
#define h " "
```

```
#define P cout<<
```

Warm up?

-> Finding Ascii Value ?

```
const float a;  
a=100;
```

Given Numbers

1,2,3,5,3,2,1,5,6

Find the number that occurs only once.

Input : Total Numbers to be entered.



Scope of a variable! Lifetime and Visibility

Global Variables?

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 \$.

cin vs cin.get()?

- Input Buffer/Output Buffer

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 referenced through the same variable name.

Lets write some code

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

Sorting?

Selection Sort!

Bubble Sort !

Insertion Sort!

What is next class about?

- Arrayscontd...

C++ LAUNCHPAD



CODING
BLOCKS

Thank You!

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