

August 31,
2015

Launchpad

Lecture - 3

Programming
Fundamentals – 2

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Square Root?

Assignments?

Any other doubts?

TA Sessions



Break & Continue?

Scope of Variables

cin vs cin.get()

Lets do some more problems

- Write a code to count characters till you read a \$

Time to try?

- Write program to calculate digits, whitespace and other characters terminated by \$

In Logical Expression any
Non-Zero Value is True

Bitwise Operators

- Binary AND: $\&$
- Binary OR: $|$
- Binary XOR: \wedge
- Binary One's Complement: \sim
- Binary Left Shift: \ll
- Binary Right Shift: \gg

Precedence & Associativity

TABLE 2-1. PRECEDENCE AND ASSOCIATIVITY OF OPERATORS

OPERATORS	ASSOCIATIVITY
() [] -> .	left to right
! ~ ++ -- + - * & (type) sizeof	right to left
* / %	left to right
+ -	left to right
<< >>	left to right
< <= > >=	left to right
== !=	left to right
&	left to right
^	left to right
	left to right
&&	left to right
	left to right
?:	right to left
= += -= *= /= %= &= ^= = <<= >>=	right to left
,	left to right

```
for(initialization;condition;step) {}
```

Print following patterns

- Given N, Print

*

* *

* * *

* * * *

* * *

* *

*

- Given N, Print

55555

54444

54333

54322

54321

Print following patterns

- Given N, Print following pattern (FOR N = 5)

ABCDEEDCBA

ABCDDCBA

ABCCBA

ABBA

AA

Easy?

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

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

Time for more Brain Teasers!



BT – 8: Daughters' Ages

Local Berkeley professors Dr. X and Dr. Y bump into each after a long time.

X hey! how have you been?

Y great! i got married and i have three daughters now

X really? how old are they?

Y well, the product of their ages is 72, and the sum of their ages is the same as the number on that building over there

X right, ok ... oh wait ... hmm, i still don't know

Y oh sorry, the oldest one just started to play the piano

X wonderful! my oldest is the same age!

How old are the daughters?

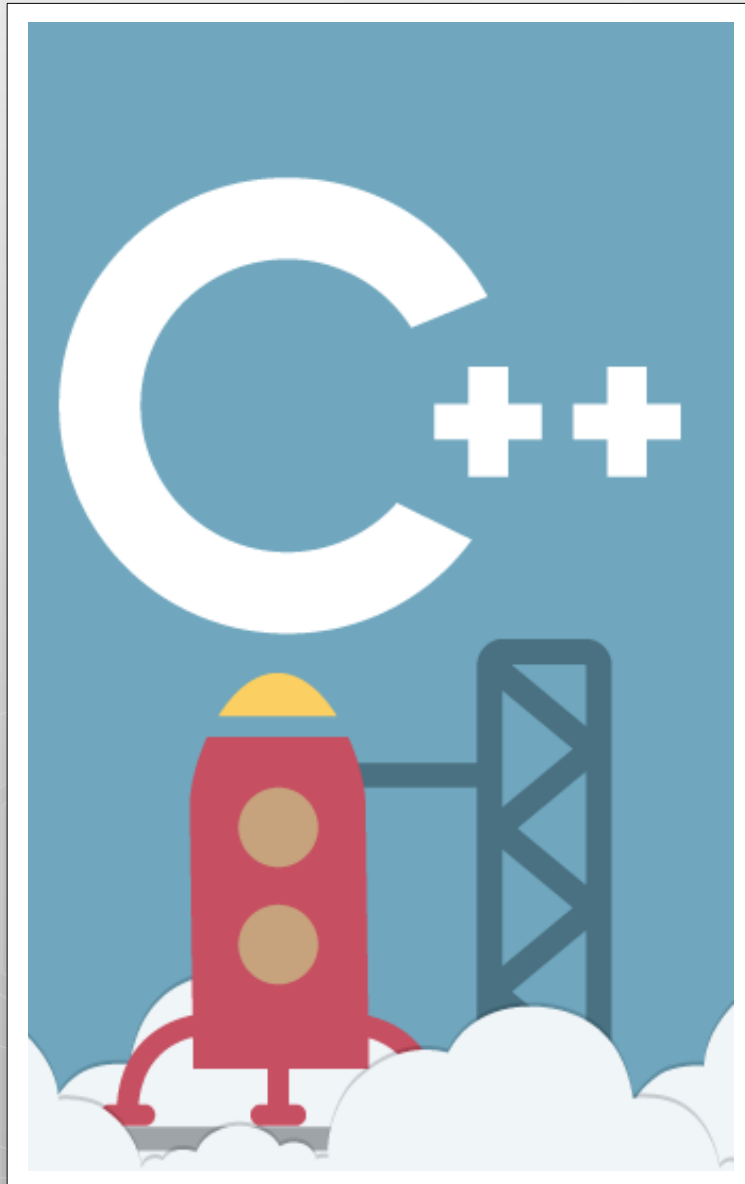


What is Next Class about?



Programming Fundamentals - 3

- Arrays



Thank You!

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