Thursday, 24
September 15

Launchpad
Lecture -8

Time Complexity, Pointers

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CODING
BLOCKS

Assignments?

Order Complexity Analysis

Amount of time/space taken by the algorithm to run as a function of the input size

Experimental Analysis

- Selection Sort vs Merge Sort

Theoretical Analysis

- Bubble Sort
- Binary Search
- Factorial
- Polynomial Evaluation

Your turn

- Insertion sort
- Fibonacci
- Assignment 3 and assignment 4 solutions

Complexity Analysis Examples

```
for (i=0; i<=n-1; i++){
   for (j=i+1; j<=k; j++){
       constant number of operations.
   }
}
```

Complexity Analysis Examples

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for (i=0; i<=n-1; i++){
   for (j=i+1; j<=n; j++){
       constant number of operations.
   }
}
```

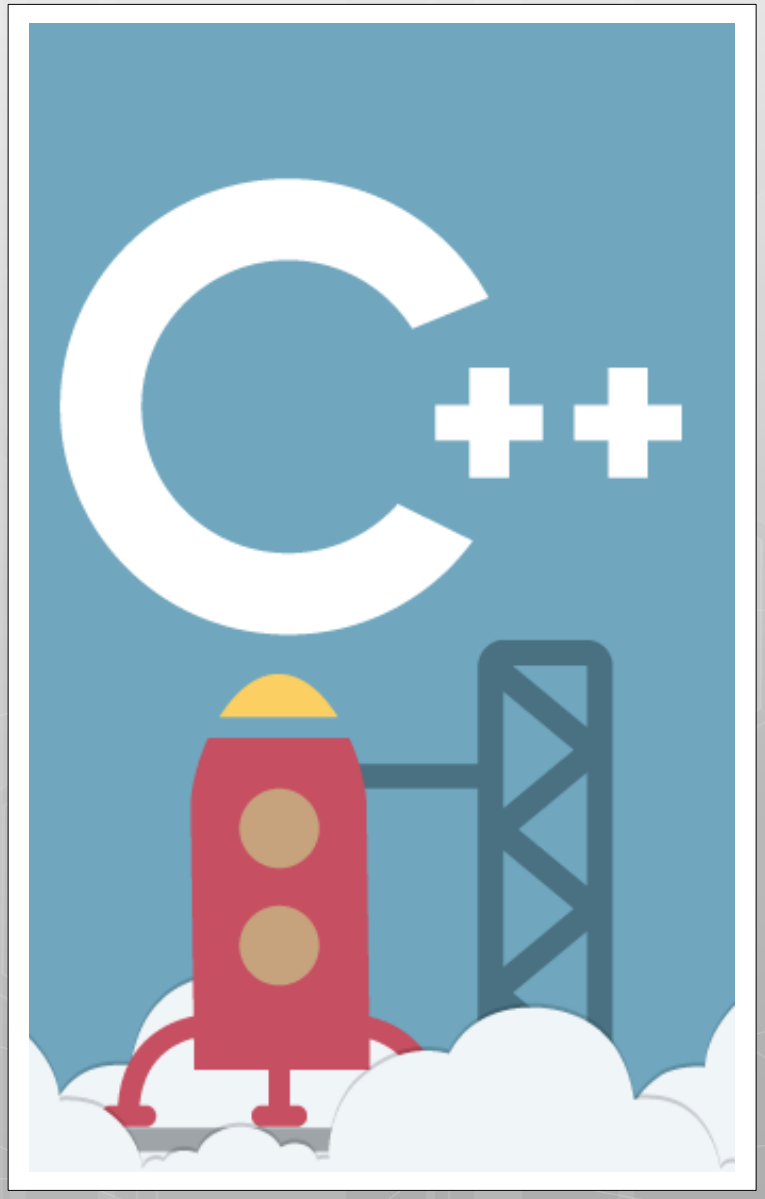
Complexity Analysis Examples

```
for (i=0; i<=n-1; ){
   for (j = 0; j<=k; j++){
       constant number of operations.
   }
   i = i + j;
}
```

What is space complexity?

What in case of recursion?

Lets go through the assignments



Thank You!

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