CS323 Raw Data - Console	output
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damed Marphy & Caclong Le	
Integer Data Set Comparisor	ns
10 Elements :	
The amount of Comparisons	for a RST is : 10
The amount of Comparisons	
The amount of Comparisons	•
100 51	
100 Elements :	
The amount of Comparisons	for a BST is : 654
The amount of Comparisons	•
The amount of Comparisons	for an AVL Tree is: 1265
1000 Elements :	
The amount of Comparisons	for a BST is : 11162
The amount of Comparisons	
The amount of Comparisons	for an AVL Tree is: 19203
10000 Elements :	
The amount of Comparisons	for a BST is : 148793
The amount of Comparisons	
The amount of Comparisons	· •
Random Word Data Set Con	nparisons

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10 Elements :	
The amount of Comparisons The amount of Comparisons The amount of Comparisons	for a Hashmap is : 0
100 Elements :	
The amount of Comparisons The amount of Comparisons The amount of Comparisons	for a Hashmap is : 1
1000 Elements :	
The amount of Comparisons The amount of Comparisons The amount of Comparisons	for a Hashmap is : 161
10000 Elements :	
The amount of Comparisons The amount of Comparisons The amount of Comparisons	for a Hashmap is : 7569
Random Word / Integer Data	Set Comparisons
10 Elements :	

The amount of Comparisons	for a BST is : 27
The amount of Comparisons	for a Hashmap is : 0
The amount of Comparisons	for an AVL Tree is : 55
100 Elements :	
The amount of Comparisons The amount of Comparisons The amount of Comparisons	for a Hashmap is : 0
1000 Elements :	
The amount of Comparisons The amount of Comparisons The amount of Comparisons	for a Hashmap is : 52
10000 Elements :	
The amount of Comparisons The amount of Comparisons The amount of Comparisons	for a Hashmap is : 3109
Integer Binary Search Tree T	ime
BST Integer10 After 100 searches the average	ge time taken in nanoseconds is : 313 nanoseconds.
BST Integer100 After 100 searches the average	ge time taken in nanoseconds is : 60756 nanoseconds.
BST Integer1000 After 100 searches the average	ge time taken in nanoseconds is : 633 nanoseconds.
BST Integer10000	

After 100 searches the average time taken in nanoseconds is: 771 nanoseconds.

Hashmap Integer Time
Hashmap Integer10
After 100 searches the average time taken in nanoseconds is : 554 nanoseconds.
Hashmap Integer100  After 100 searches the average time taken in paneseconds is : 326 paneseconds
After 100 searches the average time taken in nanoseconds is : 326 nanoseconds.
Hashmap Integer1000
After 100 searches the average time taken in nanoseconds is : 307 nanoseconds.
Hashmap Integer10000
After 100 searches the average time taken in nanoseconds is : 459 nanoseconds.
Integer AVL Tree Time
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AVL Tree Integer10
After 100 searches the average time taken in nanoseconds is : 492 nanoseconds.
AVL Tree Integer100
After 100 searches the average time taken in nanoseconds is : 442 nanoseconds.
AVI. Tree Integer1000
AVL Tree Integer1000 After 100 searches the average time taken in nanoseconds is: 658 nanoseconds.
The recognition are average time taken in manecedence is a see handseen inc.
AVL Tree Integer10000
After 100 searches the average time taken in nanoseconds is : 606 nanoseconds.
Word Map time
Troid map time

## Hashmap Word10

After 100 searches the average time taken in nanoseconds is : 711 nanoseconds.

## Hashmap Word100

After 100 searches the average time taken in nanoseconds is : 172 nanoseconds.

Hashmap Word1000 After 100 searches the average time taken in nanoseconds is : 299 nanoseconds
Hashmap Word10000 After 100 searches the average time taken in nanoseconds is : 422 nanoseconds
Word Binary Search Tree time
BST Word10 After 100 searches the average time taken in nanoseconds is : 95 nanoseconds.
BST Word100 After 100 searches the average time taken in nanoseconds is : 160 nanoseconds
BST Word1000 After 100 searches the average time taken in nanoseconds is : 389 nanoseconds
BST Word10000 After 100 searches the average time taken in nanoseconds is : 451 nanoseconds
Word AVL Tree Time
AVL Tree Word10 After 100 searches the average time taken in nanoseconds is : 135 nanoseconds
AVL Tree Word100 After 100 searches the average time taken in nanoseconds is : 186 nanoseconds
AVL Tree Word1000 After 100 searches the average time taken in nanoseconds is : 327 nanoseconds

AVL Tree Word10000

After 100 searches the average time taken in nanoseconds is : 526 nanoseconds.

Word & Integer BST Tree Time

BST Tree Word Int10

After 100 searches the average time taken in nanoseconds is : 158 nanoseconds.

BST Tree Word Int100

After 100 searches the average time taken in nanoseconds is : 185 nanoseconds.

BST Tree Word Int1000

After 100 searches the average time taken in nanoseconds is : 346 nanoseconds.

BST Tree Word Int10000

After 100 searches the average time taken in nanoseconds is : 566 nanoseconds.

Word & Integer Hashmap Time

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Map Word Int10

After 100 searches the average time taken in nanoseconds is : 243 nanoseconds.

Map Word Int100

After 100 searches the average time taken in nanoseconds is: 148 nanoseconds.

Map Word Int1000

After 100 searches the average time taken in nanoseconds is: 131 nanoseconds.

Map Word Int10000

After 100 searches the average time taken in nanoseconds is : 274 nanoseconds.

Word & Integer AVL Tree Time

**AVL Tree Word Int10** 

After 100 searches the average time taken in nanoseconds is : 66 nanoseconds.

AVL Tree Word Int100

After 100 searches the average time taken in nanoseconds is: 151 nanoseconds.

AVL Tree Word Int1000

After 100 searches the average time taken in nanoseconds is : 288 nanoseconds.

AVL Tree Word Int10000

After 100 searches the average time taken in nanoseconds is: 509 nanoseconds.