

11-4-2016

# qsort

qsort (array, num\_items, size\_of\_each, compare\_fn)  
void\* size\_t size\_t fn(void\*, void\*)

compare\_fn (void\* a, void\* b)

↳ < 0 if a < b  
= 0 if a = b  
> 0 if a > b

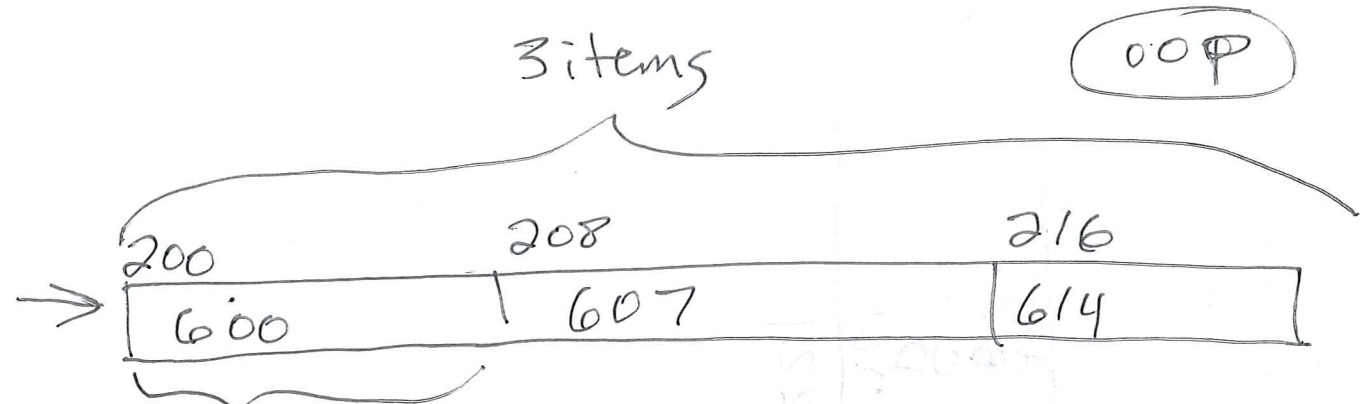
In qsort args write name of fn.

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$qsort(\text{addr}, \text{num\_items}, \text{item\_bytes}, \text{compare\_fn})$

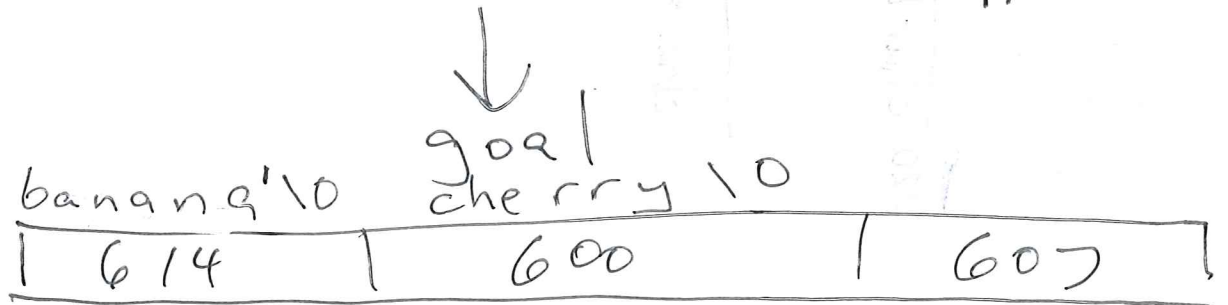
size of one item  
↓  
in bytes

$qsort(\text{strings}, 3, 8, \text{compare\_strings})$



$qsort(\dots) \{$   
 $\quad \text{compare\_strings}(\circ, \circ), 8 \text{ bytes}$

600                      607                      614  
"banana"              "cherry"              "apple"



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# function addresses

Address of that function in memory.

Used by `qsort(...)` to allow "seamless" sorting of any kind of data (e.g. `int`, `struct Team`, `struct person`, `char*` etc.)

↳ Pass `compare_fn(...)` as function address

