8. Pointers

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Review

Recursion (mergesort.c)

Data Types

Overview

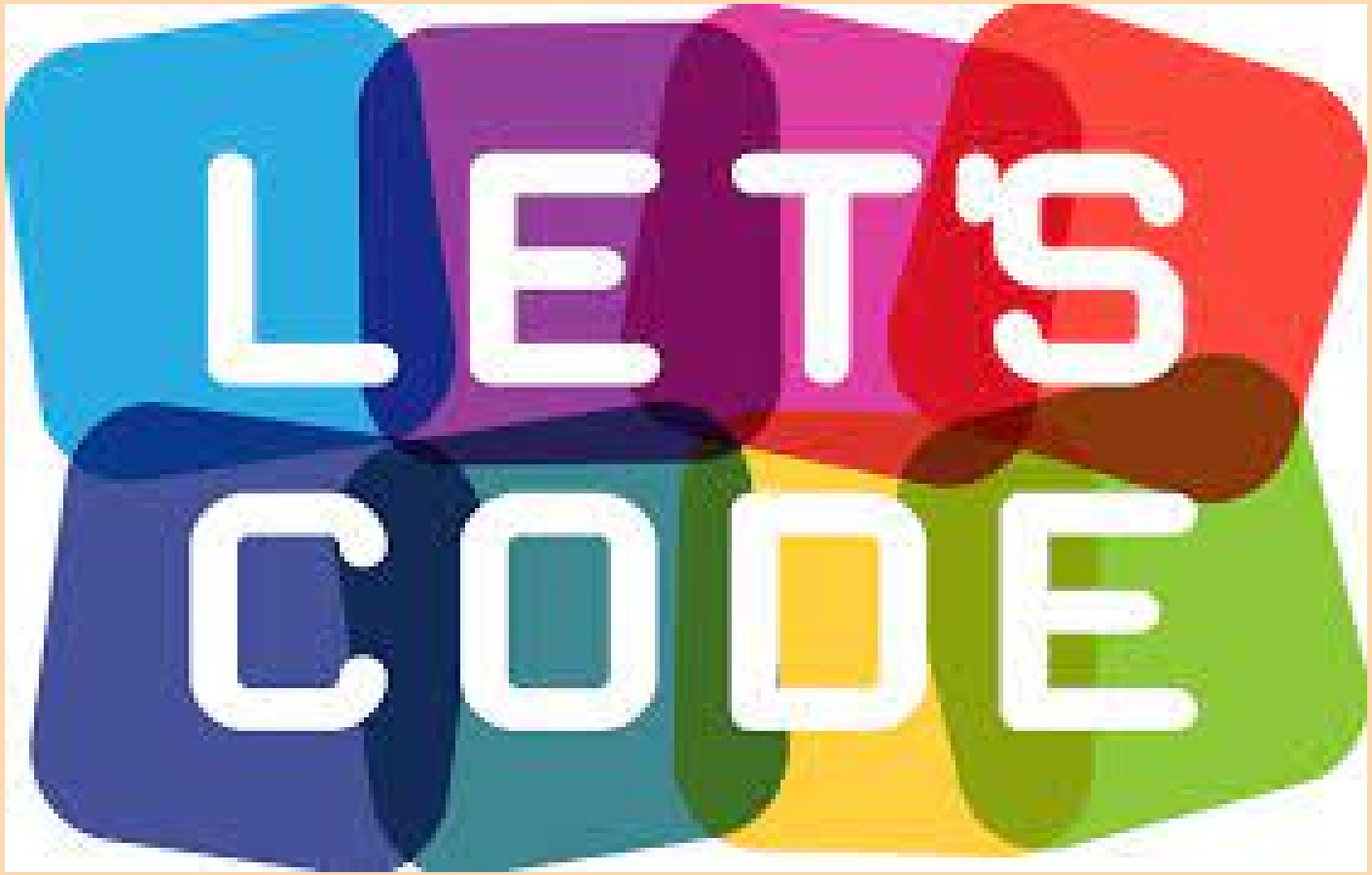
Pointers and Arrays

Overview

Pointer

stackoverflow.com

Pointers in Java - Stack Overflow



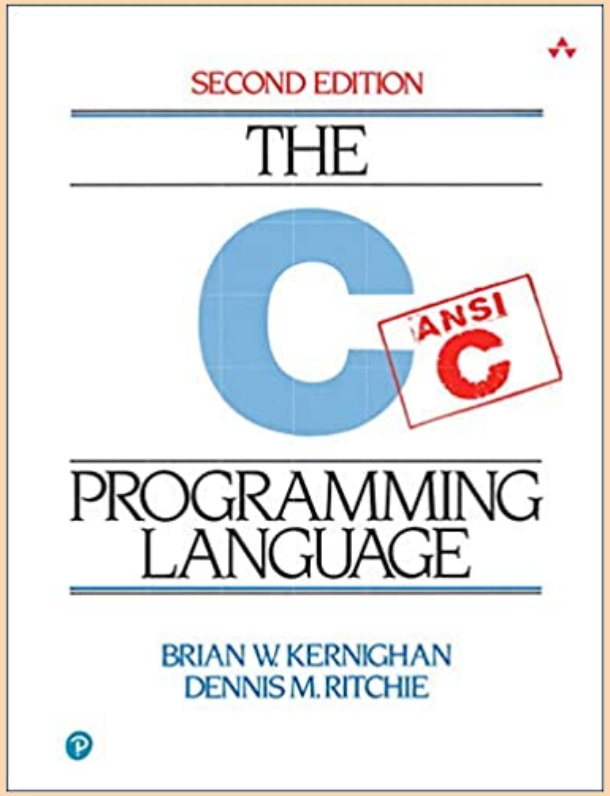
radius.c **selection-sort.c** **merge.c**

Variables (radius.c)

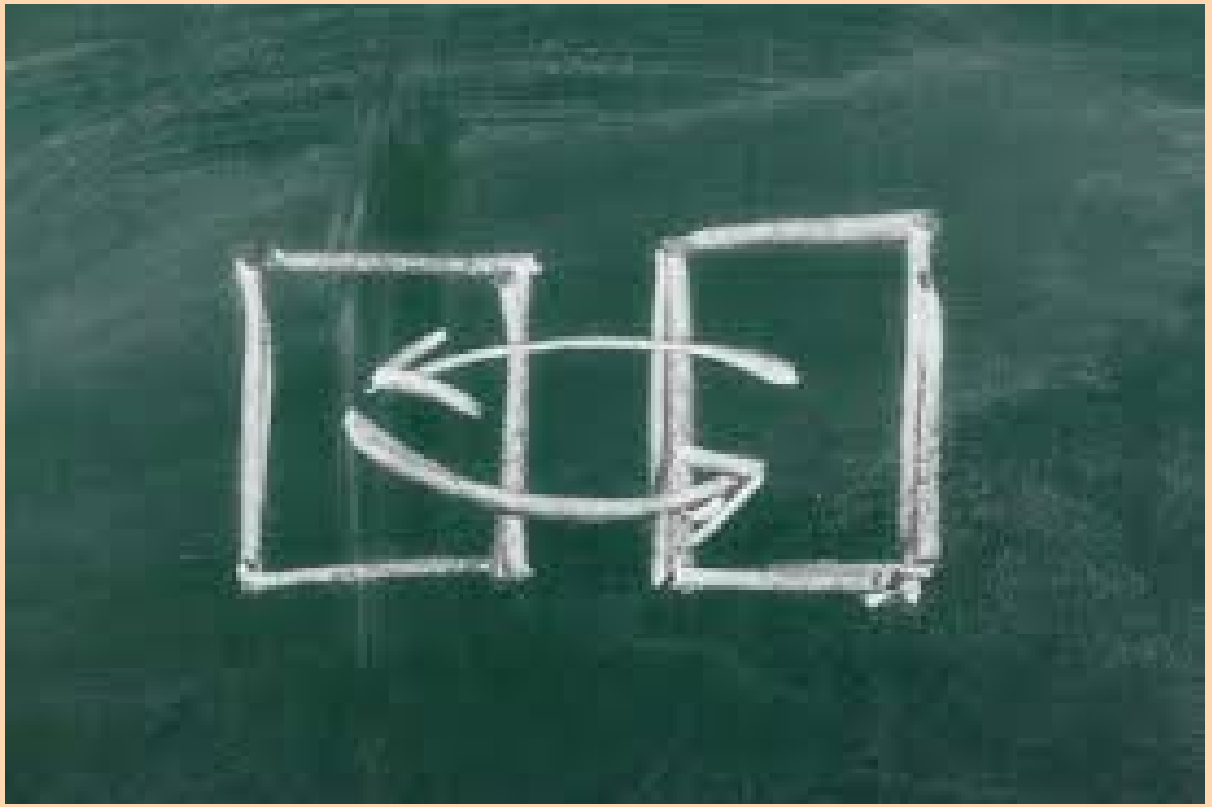
A **variable** has its ***type***, ***value***, and ***address***.

A **variable** can be used as a ***lvalue*** or a ***rvalue***.

"A ***pointer*** is a ***variable*** that contains the ***address*** of a variable."



Swap (selection-sort.c)



Pointers and Arrays (selection-sort.c)

- In ***expressions***, the ***name*** of an array is a synonym for the ***address of its first element***.

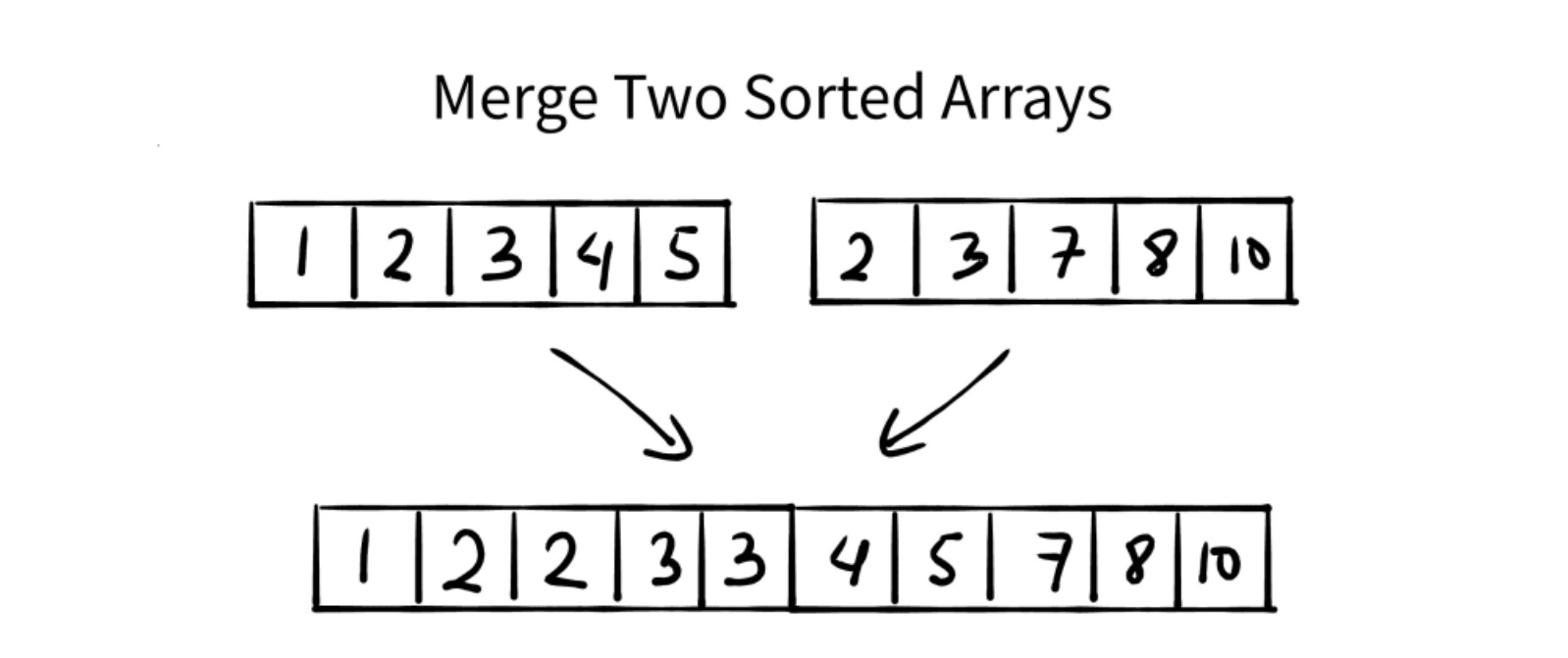
- But an array name is **NOT** a variable.

Dynamic Memory Management (selection-sort.c)

void *malloc(size_t size);

void free(void *ptr);

Returning Pointers from Functions (merge.c)



Returning Multiple Values from Functions (scanf.c)

```
while (scanf("%d", &numbers[++len]) != EOF);
```

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