8. Pointers and Arrays

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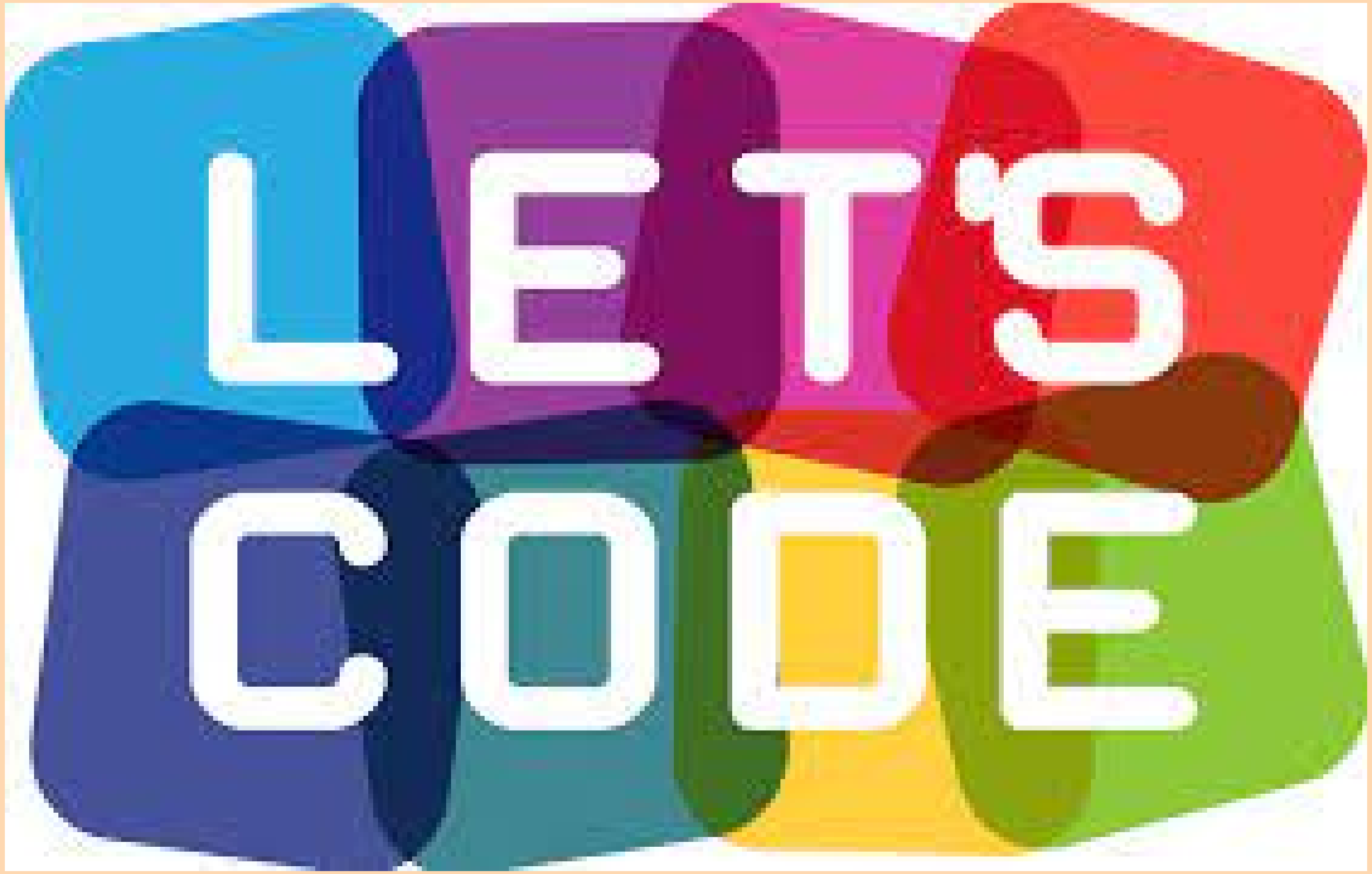
Overview

Pointers and Arrays (5 = 3 + 2)



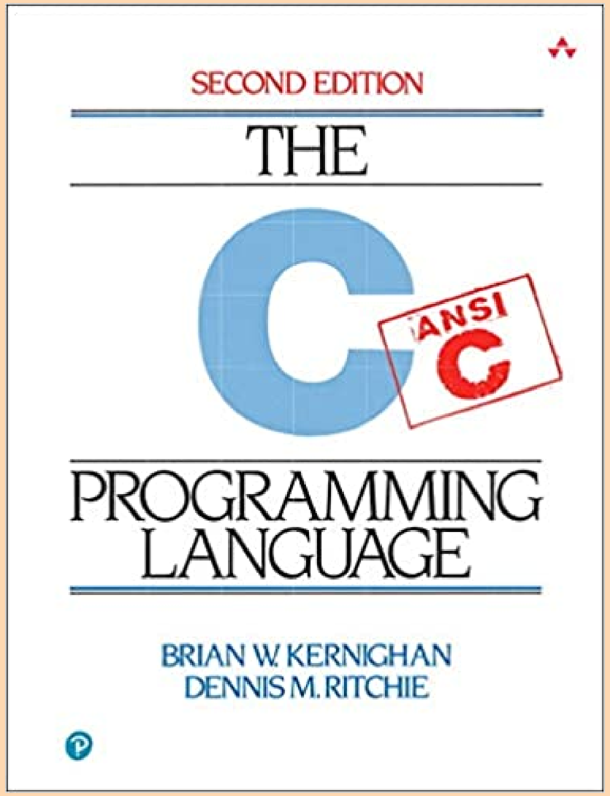
radius.c   **selection-sort.c**   **~~merge.c~~**

Variables (radius.c)

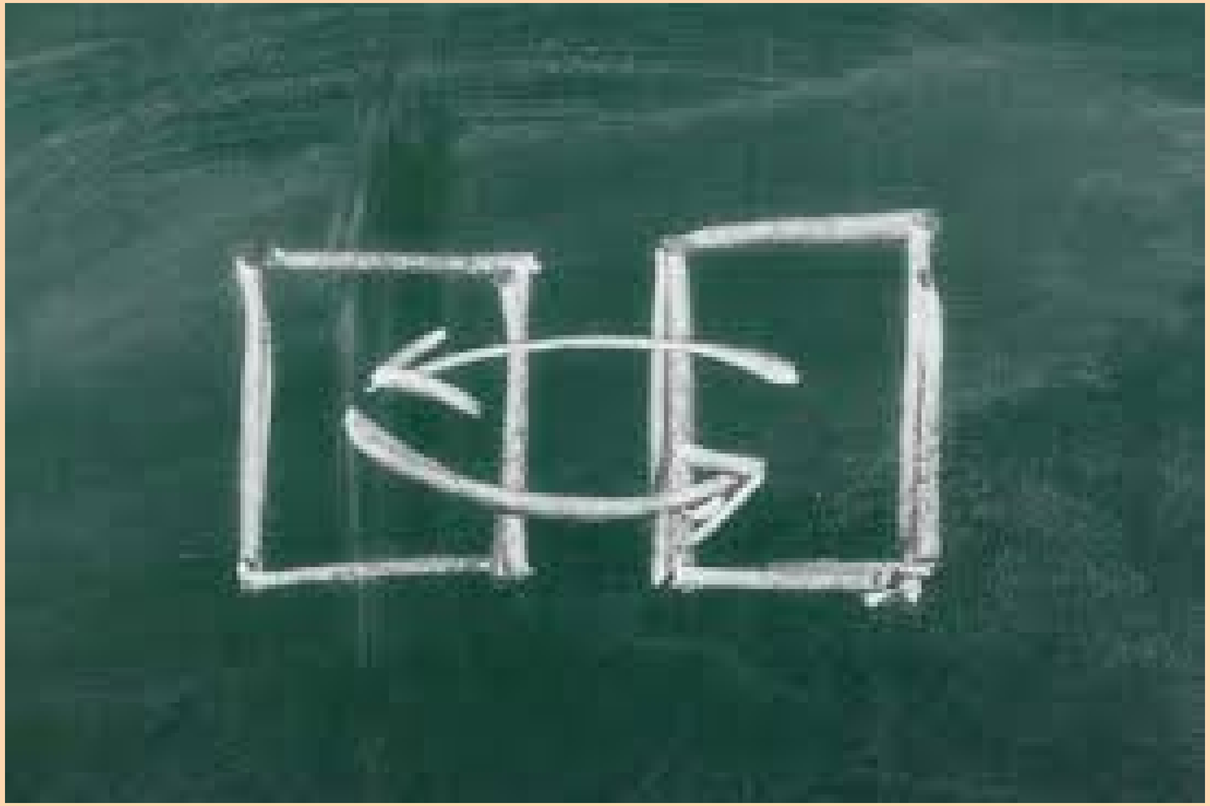
A **variable** has its *type*, *value*, and *address*.

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);
```

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