

Outline

- Modifiers (short, long, signed, unsigned,) are used for integers.
- Some programming examples.

Long and short

If integer is 4 byte, short int may be 2 byte

If integer is 4 byte, long int may be 8 byte

`sizeof (short) <= sizeof(int) <= sizeof (long)`

note : by default **int some_variable_name:**
Is signed integers variable

Unsigned **int some_variable_name:** allows only positive values.

Programming examples

If **sizeof(long int) = 4 bytes**

then **sizeof(long long int) = 8 bytes**

else

if **sizeof(long int) = 8 bytes**

then **sizeof(long long int) = 8 bytes**

SUMMARY

1. `sizeof (short) <= sizeof(long)`

2. writing `singed int some_variable_name;` is equivalent to writing `int some_variable_name;`
3. `%d` is used to print “singed integer”
4. `%u` is used to print “unsigned integer”
5. `%ld` is used to print “long integer” equivalent to “singed long integer”
6. `%lu` is used to print “unsinged long integer”
7. `%lld` is used to print “ long long integer”
8. `%llu` is used to print “ unsigned longlong integer”