



# STRINGS AND C-STRINGS

C++ Supports Two String Types



# C-STRINGS

- The original string type inherited from the C Programming Language
- The name stands for either
  - C-Style strings
  - Character strings
- Considered a primitive data type
- Composed of characters arrays were a special character, called a null-terminator, marks the end of character data in the string
- Still used for command line arguments and systems programming



# STRING CLASS

- The C++ string class is very similar to the Java String class
- Considered a high-level data type (the class wraps a character array)
- More dynamic than a C-string (manages its own memory)
- Numerous functions and operators are supported
  - `#include <string>`
  - `==, !=, <, <=, >, >=, =, +, +=`
  - Individual characters are accessed with “at” function or the '[' and ']' operators



# STRING CHARACTERISTICS

- **Character data**
  - The characters saved in or represented by the string
- **Length or size**
  - The number of characters currently saved
- **Capacity**
  - The maximum number of characters a fundamental string can hold
  - The maximum number of characters a string can hold before growing

