

# Write Algorithms Solutions

# replace()

- Describe the replace function
  - `replace()` changes all elements with a given value to have another value
- What arguments does `replace()` take?
  - `replace()` takes an iterator range, and the old and new values
- Write a simple program that uses `replace()`
- Write the equivalent code without using `replace()`

# replace\_if()

- Describe the replace\_if function
  - `replace_if()` changes all elements for which a predicate is true to have another value
- What arguments does `replace_if()` take?
  - `replace_if()` takes an iterator range, the predicate function, and the new value
- Write a simple program that uses `replace_if()`
- Write the equivalent code without using `replace_if()`

# replace\_copy()

- Describe the replace\_copy function
  - The same as copy(), but the data is copied to a destination instead of overwriting the original elements
- What arguments does replace\_copy() take?
  - replace\_copy() takes an iterator range, the destination, and the old and new values
- Write a simple program that uses replace\_copy()
- Write the equivalent code without using replace\_copy()

# replace\_copy\_if()

- Describe the `replace_copy_if` function
  - The same as `copy_if()`, but the data is copied to a destination instead of overwriting the original elements
- What arguments does `replace_copy_if()` take?
  - `replace_copy_if()` takes an iterator range, the destination, the predicate function, and the old and new values
- Write a simple program that uses `replace_copy_if()`
- Write the equivalent code without using `replace_copy_if()`