# Practice projects:

Project in C++ to learn and understand concepts. Build using CMAKE for Visual Studio projects.

# constProject:

Contains main.cpp file that showcases the use of keyword “const” in different scenarios like:

* Const variable
* Const pointer to normal variable
* Pointer to const variable
* Const pointer to const variable

PracticeClass is used to showcase use of keyword “const” in scenarios involving functions and class member variables:

* Const member variable initialization
* Const function
* Const function overloading
* Const input to functions
* Const return type

## stringProject

Project to showcase various operations done on strings in C++ like:

* ReverseString
* EncodeString
* PalindromeCheck(both case-sensitive and case-insensitive)

## vectorProject

Project to showcase various operations done on vectors in C++ like:

* Reversing a vector
* Checking if a string of brackets are balanced
* Insertion Sort

## Sorting and SortingTesting

Projects to showcase different sorting algorithms

* Sorting.h -> Base class
* BubbleSorting -> Sorts using bubble sort
* InsertionSort -> Sorts using insertion sort
* MergeSort-> base class for merge sort . –TO DO in-place merge sort—
* OutPlaceMergeSort -> sorts using temp arrays for merge sort
* OptimisedBubbleSort -> Sorts using bubble sort with a check for sorted list at each iteration

SortingTesting contains Main.cpp which shows how to invoke the sorting functions and also time-comparison between the different algorithms based on the array size.