

Tut-05 is a continuation of Tut-04.

You need to upload 2 files to Canvas for this assignment, `my_bsearch.h` and `tutorial_5.cpp`.

This exercise helps you to gain better understanding on `qsort` and `bsearch`.

The `bsearch` function in the C library returns the address of an element in the array that matches the search key. If no element in the array matches the search key, the `bsearch` function returns a `nullptr`.

In this exercise, you will implement a variant of `bsearch`, i.e. a binary search function to find the first element in the array that is greater than or equal to the search key.

The search function returns the address of the first element in the array that is greater than or equal to the search key.

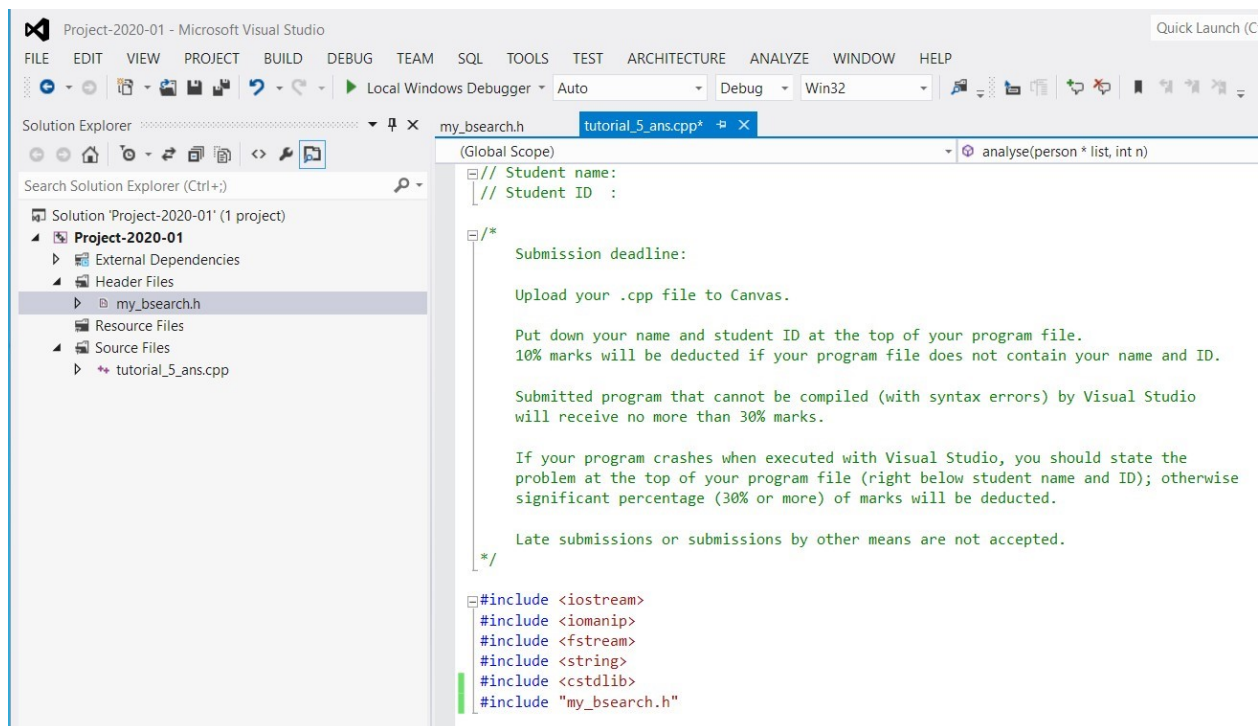
If the search key is greater than all elements in the array, then the search function returns the address that corresponds to the `n`-th element in the array.

See the video on “`qsort` and `bsearch`” for a hint on how to implement your `bsearch` function.

The user defined function `bsearch_first` is placed in the file “`my_bsearch.h`”.

Add the `.h` file to your project (in Header Files) as shown in the screen capture below.

In the program file `tutorial_5.cpp`, there is an include statement for the `.h` file.



In this exercise, the value of `today` is set according to the current system time.

Hence, you may get different results if you run your program on different dates.