Given the following data (see [WiiGames.txt](http://chatt.hdsb.ca/~barsanl/ics3m1_gr11compsci/WiiGames.txt) file):

Game                       Genre                Developer            Release       Sales         Price

                                                                           (in millions)

--------------------------------------------------------------------------------------------------------

Sports                     Sports               Nintendo\_EAD         2006          58.35         $ 14.37

Mario\_Kart                 Racing               Nintendo\_EAD         2008          20.84         $ 42.54

Sports\_Resort              Sports               Nintendo\_EAD         2009          12.81         $ 35.56

Super\_Mario\_Galaxy         Action\_and\_Adventure Nintendo\_EAD         2007          8.29         $ 17.97

Fit                        Fitness              Nintendo\_EAD         2008          22.6          $ 45.98

The\_Legend\_of\_Zelda        Action\_and\_Adventure Nintendo\_EAD         2006          5.4          $ 15.65

Resident\_Evil\_4            Shooter              Capcom               2007          1.65         $  9.47

Guitar\_Hero\_III            Music                Nintendo             2007          4.37         $ 36.13

Call\_of\_Duty               Shooter              Treyarch             2008          1.38         $ 12.29

Super\_Mario\_Bros           Action\_and\_Adventure Nintendo\_EAD         2009          6.68         $ 35.40

Lego\_Star\_Wars             Action               Traveller's\_Tales    2007          3.16         $ 11.81

Pokemon\_Battle\_Rev         Fighting             Genius\_Sonority      2007          1.43         $ 29.42

Play                       Sports               Nintendo\_EAD         2007          26.62         $ 12.97

Fit\_Plus                   Fitness              Nintendo\_EAD         2009          5.95         $ 73.74

Super\_Paper\_Mario          Role\_Playing         Intelligent\_Systems  2007          2.83         $ 15.02

Deca\_Sports                Sports               Hudson               2008          2.08         $  8.79

Rock\_Band                  Music                Harmonix             2008          1.36         $  4.50

Rayman\_Raving\_Rabbids      Mini\_Games           Ubisoft\_Montpellier  2006          1.66         $  6.74

We\_Ski                     Sports               Namco\_Bandai         2008          1.33         $  7.23

Super\_Smash\_Bros           Fighting             Sora                 2008          9.19         $ 29.39

…write a program that:

1. Reads the data from the file WiiGames.txt and **displays** it on the screen featuring the header given in the picture above. The file WiiGames.txt does not contain the header.

2. **Sorts** the content of WiiGames.txt file, in ascending order, by any of the columns: *Game*, *Genre* or *Release* specified as input by the user.

3. **Searches** through the sorted data for a game’s complete information. The user has the choice to search by *Game*, *Release* or *Price*. When the information is found the complete row(s) will be displayed.

For example:

Input the release year: 2006

2 games were found:

**Game                 Genre                Developer            Release       Sales         Price**

**(in millions)**

**--------------------------------------------------------------------------------------------------**

**Sports               Sports               Nintendo\_EAD         2006          58.35         $ 14.37**

**The\_Legend\_of\_Zelda  Action\_and\_Adventure Nintendo\_EAD         2006          5.4          $ 15.65**

**OR**

  Input the name of the game: Charlie

The game is not in the list.

The program **must**:

-          A menu with options for **sorting**, **searching** data and **quitting** the program.

-          A method that sorts an array (use *Bubble sort* or any other sorting algorithm you know well)

-          A method that displays the array (sorted or not) into the output window.

-          A method that searches in an array for a given item and returns the position(s) of the found item in the array or 0 if the item was not found (use either *Linear* or *Binary search*).

-          **Complete header and meaningful comments**

**Rubric:**

|  |  |  |
| --- | --- | --- |
| Header (include ALL sections) and comments |  |  |
| User friendly interface (menu, prompts, graphics) |  |
| error checks |  |