

Name:	NEPTUN:	Computer number:
Grade: 1 3 5	Help: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

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Solve the problem in an object-oriented way in C++ according to the following:

You have to use the template class library at <https://people.inf.elte.hu/treszka/oktatas/OOP/library.zip>.

You cannot modify the library. **There can be no loops or recursive function calls** in your code. You can assume that the input file is correct. You only have to check that the file exists. You can open the file only once, and cannot use a variable whose size depends on the size of the file (for example, you cannot read everything into a vector and then process it). If the problem does not make sense for an empty file handle that case separately. You cannot use global variables.

The results of the participants of a high school sports championship were recorded in a text file. One line of the file contains the name of the participant (a single word without spaces), the identifier of the school (a single word without spaces, starts with the zip code), then the places earned by the participant in the form of sport, place (a single word without space, natural number) pairs. The data in a line are separated by spaces. The file is sorted by the identifier of the school. You can assume that the file is correct. An example line of the file:

Peter 1063Szinyei run100 3 swimming500 1 highjump 1

// highJump – stringstreamenumerator // LINSEARCH

// name,highJumpCounter, studentCounter – custom enumerator (extracted from multiple lines of the file) // COUNTING+COUNTING=SUMMATION

For grade 3: Find a contestant who participated in high jump, and whose best place is a silver medal. Also print the school the contestant is from, and the number of silver medals they've earned.

For grade 5: Enumerate the schools from which there were at least 10 contestants who participated in high jump. Also print the number of total participants from each of these schools.

You don't have to do the solution for grade 3 if you have already solved for grade 5. It is recommended to start with the problem for grade 3.