**Task: Write a small program in C++**

Your program shall load a list of rectangles with different sizes from a single ASCII text file. Those should be stored in memory in an appropriate data structure. Please use the following declaration as basis for your loader code. You may extend the declaration of the class, but please don’t change the signature of the constructor or the method load().

RectLoader.h

class RectLoader

{

public:

    RectLoader(const std::string& filePath);

    std::vector<Rect> load();

};

After the rectangles have been loaded, your application shall compute a layout for placing all rectangles inside one square.

•                    The rectangles must not overlap with each other.

•                    The square should have the smallest possible area you can achieve.

The result is the size of the square and the actual placement of all input rectangles.

Try to implement this task without relying on external libraries, except the C++ standard library. If you add a dependency to an external library, please document your reasoning.

The solution you send us should include the following:

•                    The source code

•                    Build instructions, Makefiles, Visual Studio files or other means for us to easily  
compile your program ourselves. You can choose Windows or Linux as target platform, according to your personal preferences.

•                    Input data files matching your implementation of the RectLoader

•                    The description of the expected output

•                    A high-level description of the algorithm you implemented.

Your implementation and program should be understandable without further separate documentation files, i.e. please strive for readable, concise code and add code comments where necessary.