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/* The following code example is taken from the book
 * "The C++ Standard Library – A Tutorial and Reference, 2nd Edition"
 * by Nicolai M. Josuttis, Addison-Wesley, 2012
 *
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 */
#include <string>
#include <fstream>    // for ofstream
#include <memory>     // for shared_ptr
#include <cstdio>      // for remove()

class FileDeleter
{
private:
    std::string filename;
public:
    FileDeleter (const std::string& fn)
        : filename(fn) {}
    void operator () (std::ofstream* fp) {
        fp->close(); // close file
        std::remove(filename.c_str()); // delete file
    }
};

int main()
{
    // create and open temporary file:
    std::shared_ptr<std::ofstream> fp(new std::ofstream("tmpfile.txt"),
                                       FileDeleter("tmpfile.txt"));
    //...
}

```