```cpp
/* 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 <iostream>
#include <fstream>

void hexMultiplicationTable (std::streambuf* buffer, int num)
{
    std::ostream hexout(buffer);
    hexout << std::hex << std::showbase;

    for (int i=1; i<=num; ++i) {
        for (int j=1; j<=10; ++j) {
            hexout << i*j << ' ';
        }
        hexout << std::endl;
    }

}   // does NOT close buffer

int main()
{
    using namespace std;
    int num = 5;

    cout << "We print " << num
         << " lines hexadecimal" << endl;

    hexMultiplicationTable(cout.rdbuf(),num);

    cout << "That was the output of " << num
         << " hexadecimal lines " << endl;
}
```