```
/* 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
 * (C) Copyright Nicolai M. Josuttis 2012.
 * Permission to copy, use, modify, sell and distribute this software * is granted provided this copyright notice appears in all copies. * This software is provided "as is" without express or implied
 * warranty, and with no claim as to its suitability for any purpose.
 */
#include <regex>
#include <iostream>
#include "regexexception.hpp"
using namespace std;
int main()
  try {
    // initialize regular expression with invalid syntax:
    regex pat ("\\\\)*index\\\([^]*)\\)",
                 regex_constants::grep|regex_constants::icase);
    //...
  catch (const regex error& e) {
         }
```