

Using LEX to do the following (excluding anything within the comments and double quotes):

- a. Count the total number of words. (2)
- b. Identify words beginning with vowels and convert them to upper case. (4)
- c. List the words not beginning with vowels, the lines in which they occur, and the number of times each word occurs. (4)

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Test case

```
// Borland C++ -(C) Copyright 1991 by Borland International
/* DCOPY.CPP --Example from Getting Started */
/* DCOPY source-file destination-file *
 * copies existing source-file to destination-file *
 * If latter exists, it is overwritten; if it does not *
 * exist, DCOPY will create it if possible *
 */

#include <iostream.h>
#include <process.h>                // for exit()
#include <fstream.h>                // for ifstream, ofstream
main(int argc, char* argv[])      // access command-line arguments
{
    char ch;
    if (argc != 3)                  // test number of arguments
    {
        cerr << "USAGE: dcopy file1 file2\n";
        exit(-1);
    }
    ifstream source;                // declare input and output streams
    ofstream dest;
    source.open(argv[1],ios::nocreate); // source file must be there
```

```
if (!source)
{
cerr << "Cannot open source file " << argv[1] << " for input\n";
exit(-1);
}
dest.open(argv[2]); // dest file will be created if not found

// or cleared/overwritten if found
if (!dest)
{
cerr << "Cannot open destination file " << argv[2] << " for output\n";
exit(-1);
}
while (dest && source.get(ch)) dest.put(ch);
cout << "DCOPY completed\n";
source.close(); // close both streams
dest.close();
}
```