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// ***
// *** You MUST modify this file.
// ***

#include <stdio.h>
#include <stdbool.h>
#include <string.h>

#ifdef TEST_COUNTWORD
int countWord(char * filename, char * word, char * line, int size)
{
  FILE *fptr; //file pointer
  char *temp; //pointer for strstr
  int sum; //number of times a word appears in a file
  int lenword; //length of the word

  fptr = fopen(filename, "r");
  if (fptr == NULL)
  {
   return -1;
  }
  sum = 0;
  lenword = strlen(word); //length of the word

  while(!feof(fptr))
  {
   if (fgets(line, size, fptr) != NULL){
   temp = line;
   do
   {
    temp = strstr(temp, word);
    if(temp != NULL)
    {
     sum++;
     temp += lenword;
    }
   }while(temp != NULL);
  } //closes while
  }
  // filename: name of the input file
  // word: the word to search
  // line: temporary space to store what is read from the file
  // size: size of line
  // open a file whose name is filename for reading
  // if fopen fails, return -1.
  // if fopen succeeds, set sum to zero
  // use fgets to read the file
  // if word appears in a line, add one to sum
  //
  // It is possible that the same word appears multiple times in a
```

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line
  // If this word is split in two or more lines, do not count the
word.
  //
  // It is also possible that a long line is split by fgets. If this
happens,
  // do not count the word.
  //
  // return sum
  //
  // If a line is "aaaaa" and the word is "aa", how is the count
defined?
  // In this assignment, the first two letters are consumed when the
  // the first match occurs. Thus, the next match starts at the third
  // character. For this case, the correct answer is 2, not 4.

  fclose(fptr);
  return sum;
}
#endif
```