**Homework Example**

Do one the of the following three programming problems, dependent on your skill level. You may use any programming language. Submit by email your code, your input file and your output file (be sure to name your files with your name attached)  
  
In each case assume that you have a database string in a file and a pattern to search also in a file. Read in both files and then produce an output consisting of the offset position of the query pattern in the database string, if it exists. If it does not exist return a negative number.  
  
1. Implement the naive algorithm discussed in class (search through all possible positions).  
2. Implement the search with the bad character rule discussed in class  
3. Implement the search with the simple bad character rule and the good suffix rule discussed in class.  
  
If you choose to do #2 or #3 problem make sure that the program can take any string as the query pattern and compute the bad character rule and/or the good suffix rule appropriately.