CSC 526 Assignment 5

Q1 (Programming **in PERL**, files and directories):
Write a program that asks the user for the name of a file. The program should display only the first five lines of the file's contents. If the file contains less than five lines, it should display the file's entire contents.
Provide 3 different test cases.
Estimated time: 1 hour

Q2 (Programming **in PERL,** files and directories):
Write a program that asks the user for the names of two files. The first file should be opened for reading and the second file should be opened for writing. The program should read the contents of the first file, change all characters to uppercase, and store the results in the second file. The second file should be a copy of the first file, except that all the characters will be uppercase.
Provide 3 different test cases.
Estimated time: 1 hour

Q3 (Written, algorithm exercise):

	Attributes		Decision
	1 (1^{st} position)	2 (2^{nd} position)	3 (3^{rd} position)
x_1	*L*	*D*	*H*
x_2	*A*	*D*	*H*
x_3	*L*	*C*	*E*
x_4	*A*	*C*	*C*
x_5	*L*	*R*	*E*
x_6	*A*	*R*	*E*

Given the above input table, use the RT-RICO algorithm to generate all the rules (given: threshold probability, $t = 0.6$). Show all intermediate working steps. You only need to submit the paper copy for this question. To save time, the answer should be hand-written.

Estimated time: 3 hours

Submission instructions:
Please submit a paper copy and an electronic copy.

Paper copy:
- Please submit the paper copy at the beginning of the class.

- Provide (create) **test input data** to all programming questions, and capture the related outputs as screen captures (or output files).
- Print the program source code files, test input data and **the output screen captures (or output files)**. If no output screen capture (or output file) is submitted, it would be assumed that the related program does not compile. If the print-out is not readable, **no mark will be awarded**.
- Identify each assignment question by writing the question number at the top of each page.
- Add the following statement to the first page of your submission: "I have abided by the UNCG Academic Integrity Policy on this assignment". Please write your full name and sign next to the statement. If the statement or the signature is not found, **75% of the possible points will be deducted**.

Electronic copy:

- Please submit a **lastname_firstname_assignment05.zip** (or lastname_firstname_assignment01.rar) file through the Blackboard Digital Dropbox. This zip (or rar) file should contain all submission files.
- Put the answers of all written questions in a **lastname_firstname_assignment05.doc** file.
- For programming questions, you only need to submit the *.pl files.
- Name each *.pl file according to the question number (e.g. Q1_*.pl).

Grading guidelines (programming questions):

Your programs will be judged on several criteria, which are shown below.

- Correctness (50%): Does the program compile correctly? Does the program do what it's supposed to do?
- Design (20%): Are operations broken down into functions / procedures in a reasonable way?
- Style (10%): Is the program indented properly? Do variables have meaningful names?
- Robustness (10%): Does the program handle erroneous or unexpected input gracefully?
- Documentation (10%): Do all program files begin with a comment that identifies the author, the contents, and the compiler used for that particular file? Are all the functions, procedures and data fields clearly documented? Are unclear parts of code documented?

A program that does not compile will get at most **50% of the possible points**.