

CS 300

High Stakes Writing Assignment Two

Name_____

Due date : Tuesday, May 5, 2015 by 11:59:59 p.m.

Submission Method : Please email your solution to fullerj@marshall.edu

Deliverables : You must submit one pdf file that addresses the questions and issues below.

Assessment: : You will be graded on content. This includes any answers/opinions regarding programming or programming languages. This grade will be 70% of your score. Your answers must be complete, professional, and concise. You will receive a score on English, grammar, and punctuation that will count 30% of your score.

1. For each of Prolog, SAS, and C give the following
 - An application for which the language is ideally suited (defend your answer)
 - An application for which the language is not at all suited(defend your answer)
2. A Marshall University CS student has just finished CS II where he learned Python and Java. He asks you to compare and contrast C and Java. In particular, he is interested in
 - Similarities and differences in the syntax of the languages,
 - When he should choose one language over the other, and
 - Pitfalls or dangers he may encounter.In the space below, answer the student's questions and concerns.

3. A medical researcher has a very large patient database. On each patient record he has some demographics – zipcode, age, gender, marital status, and educational level. Each record also contains medical measurements such as
 - blood pressure (systolic and diastolic)
 - pulse (or heart rate)
 - temperature
 - lab test data that includes iron level, lipids, cholesterol, etc
 - smoker/nonsmoker data
 - alcohol consumption
 - drug usage
 - etc...

The researcher's goal is to find people with undiagnosed diseases. Pick a language we studied and explain how it could be used to further the researcher's goal.

4. A second researcher is interested in the effect gender has on certain diseases. For example is cancer more prevalent among women than men, which gender is more prone to heart disease, which gender is more likely to smoke or abuse drugs, etc. Suppose it is up to you to generate meaningful reports to assist the researcher in this endeavor. Explain your approach to providing this report. Include the language(s) you would use.

5. The choice of a language to teach in Computer Science I is often a difficult one for many universities and colleges. The common choices are Java, C++, C#, and Python to name a few. Suppose you are the decision maker at some university. Which language would you choose and why?
6. Reread your answers to questions 1-5. What grade – A ,B, C, D, or F – would you assign yourself on these questions?