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Computer Science 160-020

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Systems vs. Applied CS options.

* What are the similarities between the two degrees?

*The similarities between the Applied and System options of computer science is that they both have the same courses for the first four terms of college. They still teach the same basic information about computer science except they split at the higher levels into their separated courses.*

* What are the differences between the two degrees?

*The differences between the two different degrees is that when going into the third or fourth years at Oregon State you get to pick a program which shapes the education around a desired path outside of computer science with the applied program. The systems program prepares you for working at companies like Intel, Amazon and Google.*

* Which degree do you see yourself more interested in?

*I see myself more in the applied computer science with either big data or security.*

* Even if you are more interested in the Systems degree, what would you be interested in with the applied? Which pre-approved plan would you pick or which plan would you create on your and why?

*I would pick the big data or security option of the applied program.*

Understanding the problem: You must state

* Understanding the Problem: You must state any assumptions about the problem and requirements to solve the problem. How do you understand the problem? What do you think are the requirements for this game?

*The requirements for this text-based console game is to have five different endings that are achieved by taking in the input from the user. The problem is made for a group of middle school students which need to be occupied during downtime.*

* (20 pts) Devise a Plan: You must handwrite instructions/plan for solving the problem. Be VERY explicit!!!Write a flowchart or pseudocode to show your logic and thinking.

*The plan for this game is that you are a student at Oregon State trying to find their way to class with only a certain amount of time left. The input is going to ask for the inputs left, right, forwards, or backwards which will guide the user around campus. Each of the four individual paths are going to have a different theme, the left user input is going to be the one that has the most developed story path. The other directions on the first level lead you to very basic information. The first level left path is going to have four different possibilities each with its own theme, the first one is going to being in the Memorial Union with the opportunity to sleep, go to a random class, meet Benny the Beaver, or go to the correct class. The second theme is going to be at the library where you learn about tree frogs, the four sub options are going to adapt like a tree frog, eat insects, dream that you’re in a rain forest or go to sleep. The third theme is being inside of Goss Stadium with the possibilities to win the national championship for the baseball team, end up in the hospital, football, or wake up from a dream. The last theme is going to be a simple find yourself in the wrong class with no other possibilities. The other top-level options are just going to end after selection, the first one is going to be being in an oceanography class, second one is going to be in a psychology class and lastly you meet Benny the Beaver.*

* (10 pts) Looking Back: You must test your instructions on paper showing how any piece of data would change with each instruction using pictures. What will happen with good data? What will happen with bad data? Provide your expected results.

*With good data you are able to progress through the story; however, if the input is not correct it outputs that you need to redo the prompt and select one of the four inputs.*

* (30 pts) Carry out the Plan: Implement your solution and see how explicit your instructions are.