EEOS 472 – Programming for GIScience Applications – Spring 2011

Exercise 5A

Additional Instructions/Notes

1. For all exercises in this course, you will want to make a copy of the exercise .mxd to your H:\ space and open that, rather than using the one in the course data directory on S:\ because the exercises almost always involve customizing the project document, which you cannot do to the one on S:\, since you do not have write access there.

Question 5A-1 (2 marks)

When using a Case statement, you must be very careful about specifying the cases it includes. What would happen if one of the cases you specify contains a string that is spelled incorrectly (i.e. suppose you accidentally wrote Case "Rezidential" in the one you construct for the exercise)? What would happen if, in our example, you failed to include in the Case statement one of the possible zoning categories, and the user selected that case?

Exercise 5B

Additional Instructions/Notes

1. For all exercises in this course, you will want to make a copy of the exercise .mxd to your H:\ space and open that, rather than using the one in the course data directory on S:\ because the exercises almost always involve customizing the project document, which you cannot do to the one on S:\, since you do not have write access there.

15. Code completion is an extremely useful option to have available to you. Once you get used to using it, and are writing more complex code with many objects and variables, it will actually be faster than typing out long names in full.

Question 5B-1 (2 marks)

What is the difference between Case statements and If Then statements? Which is more flexible, and why is this so?

Additional Instructions/Notes

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13. One change made to ArcGIS in version 9.3 is the location of bookmarks, now in their own menu. Click the Bookmarks menu and click Holy Name College.

Question 6A-1 (2 marks)

In this exercise, we made use of some code written by someone else, and we used a subroutine call to do so. Why is this an efficient way to do this? Is there another way to incorporate code written by someone else, and if so, why wouldn't we make use of that approach?

Exercise 6B

Additional Instructions/Notes

1. For all exercises in this course, you will want to make a copy of the exercise .mxd to your H:\ space and open that, rather than using the one in the course data directory on S:\ because the exercises almost always involve customizing the project document, which you cannot do to the one on S:\, since you do not have write access there.

Question 6B-1 (3 marks)

By declaring an argument for the CreateNewChart subroutine (strTitle As String), we have specified an input that the subroutine is expecting when we call it. How do we pass that input to the subroutine? What if that input is absent? What if it is the wrong type of information (e.g. what if we try to pass something other than a string, what would happen)?

Exercise 6C

Additional Instructions/Notes

1. For all exercises in this course, you will want to make a copy of the exercise .mxd to your H:\ space and open that, rather than using the one in the course data directory on S:\ because the exercises almost always involve customizing the project document, which you cannot do to the one on S:\, since you do not have write access there.
21. One change made to ArcGIS in version 9.3 is the location of bookmarks, now in their own menu. Click the Bookmarks menu and click Howard University.

Question 6C-1 (2 marks)

Suggest an alternative to having three buttons that each specifies a different buffering distance. How would this change the way we pass the buffer distance to the subroutine?

Exercise 6D

Additional Instructions/Notes

1. For all exercises in this course, you will want to make a copy of the exercise .mxd to your H:\ space and open that, rather than using the one in the course data directory on S:\ because the exercises almost always involve customizing the project document, which you cannot do to the one on S:\, since you do not have write access there.

Question 6D-1 (2 marks)

What is the key difference between a subroutine and a function? In our exercise, what value did we return with the function that we used?