Dear professor,

I am Jiashu Wu (460108049) from your COMP2007 class. Thank you for giving us prompt feedback on assignment 1. Regarding the comments in assignment 1 feedback, I have a few points which I think I should be correct and I sincerely apply for a double check for these points.

Firstly, for assignment 1 Question 2’s proof, the marker leaves a comment saying that i don’t need to prove the correctness of Prim’s, since I didn’t modify it. And I just need to prove the modifications I made to the input have the desired results. But In my proof section, I have already proved that the Prim’s algorithm will deal with the modified input (weight in set A modified to a small number) and will produce the correct result based on the cut property, hence I think I did it correctly. Although I don’t need to prove the Prim, but proving it doesn’t hurt and I have proved what I need to prove so shouldn’t lose mark on it. Therefore, I apply for a double check of my mark on this point.

Secondly, for assignment 1 Question 2’s proof, near the end of it the marker commented that one of my reasoning doesn’t convince him. What I write is: based on the cut property (I have write the formal definition in the top of the proof section), the Prim’s algorithm will select edges in set A, since I have adjusted their weight to a very small value which is smaller than the original weights of all edges. Since Prim’s algorithm uses the cut property, based on the cut property, the edges in set A will guaranteed to be chosen, which I think is correct. Thus, can you please double check the mark for this part?

And finally, I saw there are two comments saying that the statement may not be true if there is a cycle. So I just want to confirm in this assignment did we assume the input to be connected and doesn’t have a cycle? If not, can you please help me have a check that whether the marker deduct my mark on this issue more than once?

Thank you so much sir.

Regards,

David