CSCI 1300/5001 – Fall 2019 Handout: Quiz 25b
Introduction to Object-Oriented Programming
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Names: _____

If a copy is implemented properly, subsequent changes to the original matrix should have no affect on the copy. Experiment with each of the four sample behaviors in our experimental software, and place the letter `X` in each entry of the table below in which a *copy* of the original matrix is adversely affected by the indicated change to the *original* matrix.

algorithm	mutate point	overwrite point	add row	add column
copy				
copyMatrix1				
copyMatrix2				
copyMatrix3				
copyMatrix4				
copyMatrix5				
copyMatrix6				
deepcopy				

While there are eight different variants of a copy function being analyzed, some of those implementations are effectively following the same algorithm even though expressed differently. In fact, there are really only four distinct types of results being produced by these functions, namely those produced by copyMatrix1, copyMatrix3, copyMatrix5 and copyMatrix6.

In the space below, place all eight of the functions into four groups based upon those having equivalent semantics. (We've started you out by placing four of the eight.)

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copyMatrix1,

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copyMatrix3,

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copyMatrix5,

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copyMatrix6,

Give illustrations that accurately portray the outcomes returned by the indicated calls.

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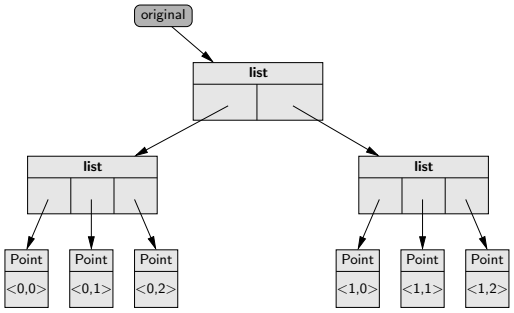
result of backup = copyMatrix1(original)



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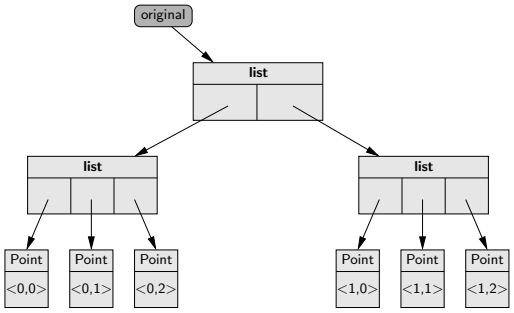
result of backup = copyMatrix3(original)



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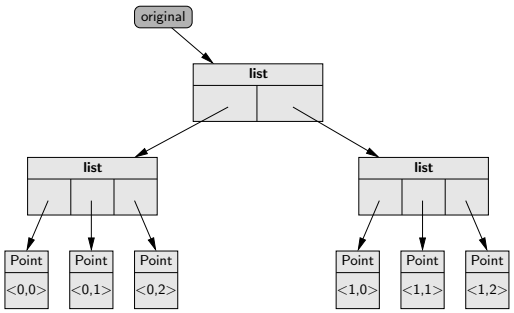
result of backup = copyMatrix5(original)



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result of backup = copyMatrix6(original)