Project 3

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Question: We have been manually drawing the division lines to demonstrate the creation of k-D trees and quadtrees. These lines are drawn so mechanically that we should be able to write a Python program to automatically draw these lines for a given tree. You only need to do this for one type of trees (k-D tree or quadtree).

- Items required to run:
    - Geom.point
    - Indexing.pointquadtree1
    - Matplotlib.pyplot as plt
    - Random
    - Math
        - Indexing.* and geom.* can be accessed through https://github.com/gisalgs
        - Others can be imported through python itself
- How to run:
    - Change the path on the supplied code (Titled Project.py) on line 16 to the folder holding the first two items required above: the rest will be import from python in the code.
    - The program itself will make sets of random data, draw scatterplots along with the quadtree separation lines, and show the points graphed in the title.
        - If you would like to use your own data set, remove lines 91-94, create your own data set, and call the function project3(x) with your data set in x.
- Example of results: