# The program is to find the smallest circle that encloses the given set of points.

# Input: It takes the set of points as an input. (eg: (2,3), (2.5,7.8))

# Output: A triplet representing the center x & y coordinates and radius.

#Algorithm flow:

Algorithm is recursive. Thus to find the smallest circle enclosing all the given points, we need two attributes to call algorithm i.e. set of all given points and empty set.

Empty set will enlarge itself as program calls recursively until it includes all boundary points of the circle.

* Let A be a set of points and B be empty set.
* Algorithm processes the points A, maintaining set X for processed points and Y for smallest circle.
* At each step it checks for weather the next point in A to be processed is in Y. If not, it replaces the Y with recursive call result that consist of X and (A U B).
* Processing each points includes testing whether the point belong to a single circle and possibly perform a recursive call to algorithm.

# Contribution:

* Smallest circle problem Wikipedia:

<https://en.wikipedia.org/wiki/Smallest-circle_problem>

# Tool used to write code:

* Jupyter Notebook

But it can be run on all the IDE’s supporting python code.