**Assignment – 1 (Random Walk)**

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***Imagine a drunken man who, starting out leaning against a lamp post in the middle of an open space, takes a series of steps of the same length: 1 meter. The direction of these steps is randomly chosen from North, South, East or West. After m steps, how far (d), generally speaking, is the man from the lamp post? Note that d is the Euclidean distance of the man from the lamp-post.***

**Conclusion:** Possibly, Euclidean distance (d) is approximately equal to square root of the number of steps(n).

**Code:**



**Output/Evidence:**



A screenshot of a computer

Description automatically generated

Chart, line chart

Description automatically generated

**Unit Test Results:**

Graphical user interface, text

Description automatically generated