Title: Visualizing Voronoi Diagrams Using Three Different Algorithms

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Introduction
Voronoi diagrams are a method of dividing space into regions based on their proximity to a set of points, with each site containing all points closer to a specific point than any other point in the set. In this project, we will implement a program to calculate and visualize Voronoi diagrams using three different algorithms: Randomized Incremental Algorithm, Fortune's Algorithm, and Flipping Algorithm. The program will generate a set of random points in two dimensions using various distributions as input and generate the corresponding Voronoi diagram using the three algorithms and visualize the result.

Functional Requirements of the Program
The program will take necessary inputs, such as the distribution type and the number of points from the user, via the graphical user interface. According to these parameters, the program will visualize a two-dimensional Voronoi Diagram. The user will be able to zoom in and out of the visual, translate while visualizing the diagram, and colorize the cells to visualize better. Additionally, for Fortune's Algorithm, the user will see the algorithm's progress as the program will show the current diagram in each intermediate step.

Testing
Using this program, we will test each of the three algorithms in terms of performance. For testing, we will use various numbers of test cases ranging from a hundred to a million. The program will report the result of the tests in a report.