### Project: Java Graphics Shapes Renderer

\*\*Description:\*\*

This project is a Java application that randomly generates and displays various geometric shapes (square, circle, rectangle, equilateral triangle, and pentagon) using Java's `Graphics` and `Swing` libraries. It showcases the use of 2D graphics to draw shapes with random sizes, colors, and positions on the screen.

\*\*Key Features:\*\*

- \*\*Random Shape Generation:\*\* The program selects a shape at random from a list (square, circle, rectangle, equilateral triangle, and pentagon) and renders it.

- \*\*Random Colors:\*\* Each shape is assigned a randomly generated color.

- \*\*Dynamic Drawing:\*\* The dimensions and positions of the shapes are randomized for variety in each execution.

- \*\*Graphics Handling:\*\* Uses Java's `Graphics` class to draw shapes and `JFrame` to display the output in a window.

\*\*Skills Demonstrated:\*\*

- Java Graphics and 2D rendering (`Graphics`, `Polygon`)

- Randomization using `Random` class for shape sizes, colors, and positions

- Event-driven programming with `JPanel` and `JFrame`

- Object-Oriented Programming (OOP) for shape drawing and logic encapsulation

\*\*Impact:\*\*

This project demonstrates practical knowledge in Java GUI programming, graphics rendering, and randomization, showcasing creativity and problem-solving, useful for software development or game development internships.