**Designing a Decagon with a Turtle**

The Turtle module in Python is used in this programme to generate a pattern made up of numerous Decagons (10-sided structures) in a variety of colours.

**PROCESS**

The turtle and random modules are imported at the beginning of the programme. A Turtle object is created, and its pace is set to 0. The turtle is then moved to its beginning location at (0, 0), and the pen is placed there. The Decagon's area, number of repeats, and number of sides are then determined by the programme. Additionally, it generates a collection of colours from which the programme will select one at random. The pattern is then depicted by the programme using a nested cycle. The drawing procedure is repeated by the exterior circle a predetermined amount of times. (repetitions). Using the given area and number of sides, the inner loop creates a decagon. The turtle then makes the stated number of 360° rounds to the right to form the spiral pattern. The turtle is finally hidden by the program, which also leaves the window available until it is explicitly closed.

**HOW TO USE**

Use the instruction python decagon\_design.py in the console to launch the programme after saving it as a Python file (for example, decagon\_design.py).