Step-by-Step Pseudocode for Bat Algorithm

1. Define the target delivery location (e.g., (7, 5)).
2. Initialize a population of bats (drone solutions) with:
    - Random positions on a 2D grid
    - Zero initial velocity
    - Random frequency values
3. For each bat, calculate the fitness (Euclidean distance to the target).
4. Repeat for a number of iterations:
    - For each bat:
        1. Update frequency using a random value within a set range.
        2. Update velocity based on the bat's position relative to the best bat found so far.
        3. Update position using the new velocity.
        4. If a random number > pulse rate:
            - Apply a local random walk around the current best bat.
        5. Calculate fitness of the new position.
        6. If the new solution is better and a random number < loudness:
            - Accept the new position as the bat's updated location.
        7. Update best bat if this new position has the best fitness so far.
5. Print the final positions and fitness (distance to the target) of all bats.