

## Implementation of DDA line Drawing Algorithm(Python)

### Algorithm: DDA Line Drawing

step 1: Input the starting and ending co-ordinate of the line:  $(x_1, y_1)$  and  $(x_2, y_2)$

step 2: Calculate the differences of the co-ordinate:  $dx = x_2 - x_1$  and  $dy = y_2 - y_1$

step 3: Determine the number of steps :  $steps = \text{int}(\max(\text{abs}(dx), \text{abs}(dy)))$

step 4: Calculate the increments values:  $x\_inc = dx/steps$  and  $y\_inc = dy/steps$

step 5: Initialize starting points:  $x = x_1$  and  $y = y_1$

step 6: Plot the point  $(x, y)$

step 7: Repeat the following for steps times:  $x = x + x\_inc$  and  $y = y + y\_inc$ , plot the point  $(\text{round}(x), \text{round}(y))$

step 8: End