My Approach to solve the problem:

1. Develop Logic for getting average for each element and its neighbor’s in the array:

avgNeighbor (x,y,radius):

For index (x,y):

Calculating subarray indexes, no. of elements using radius:

Count= 2 \* radius +1

Subarray index: x-radius, y-radius

Size: x+radius, y+radius

So,

Let sum=0

for i= x-radius to x+radius && i<MAX\_SIZE \\ MAX\_SIZE :size of array

for j=y-radius to y+radius && j<MAX\_SIZE

if i>=0&&j>= 0

sum+=arr[i][j]

avg = sum/count

1. Logic for solving problem using main thread:

For I = 0 to i< MAX\_SIZE

For j = 0 to j< MAX\_SIZE

avgNeighbor(I,j,radius):

1. Logic using multithreading

For threadCount=4

Divide 2 logic into 4 part programmatically.