

## Image Processing Lab Assignments-NITD

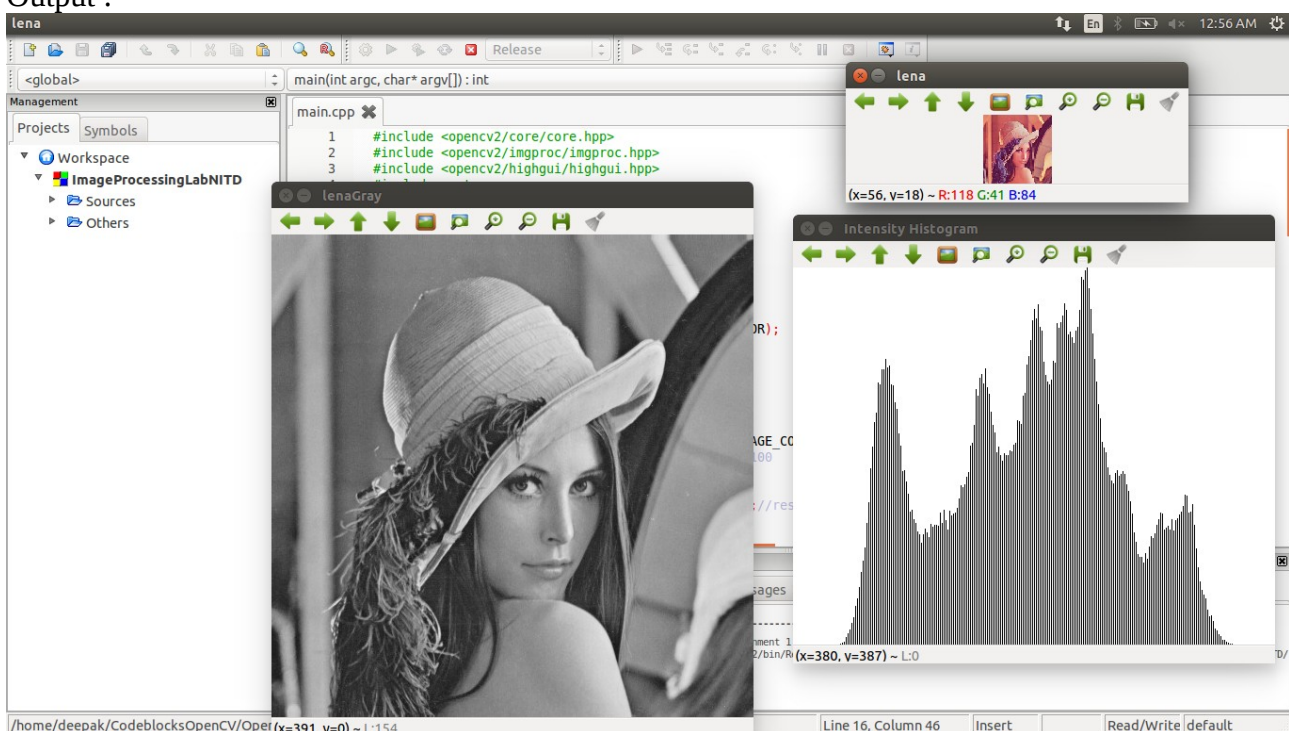
-R Om Prakash (12/CS/07)

Initial Image : lena.jpg image is used as a reference in all the assignments.

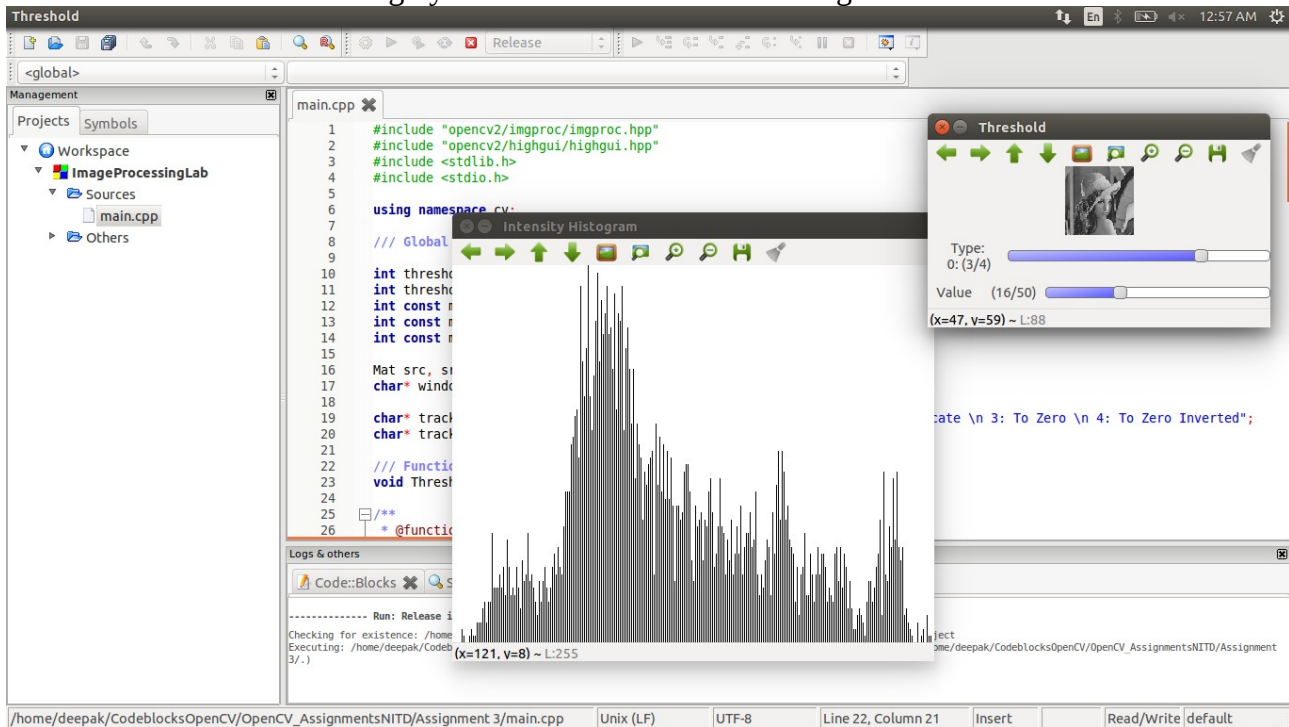


1. Write a program to read an image of size 64\*64 and convert it into gray level value of matrix.
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2. Write a program to draw the histogram of the gray level image.

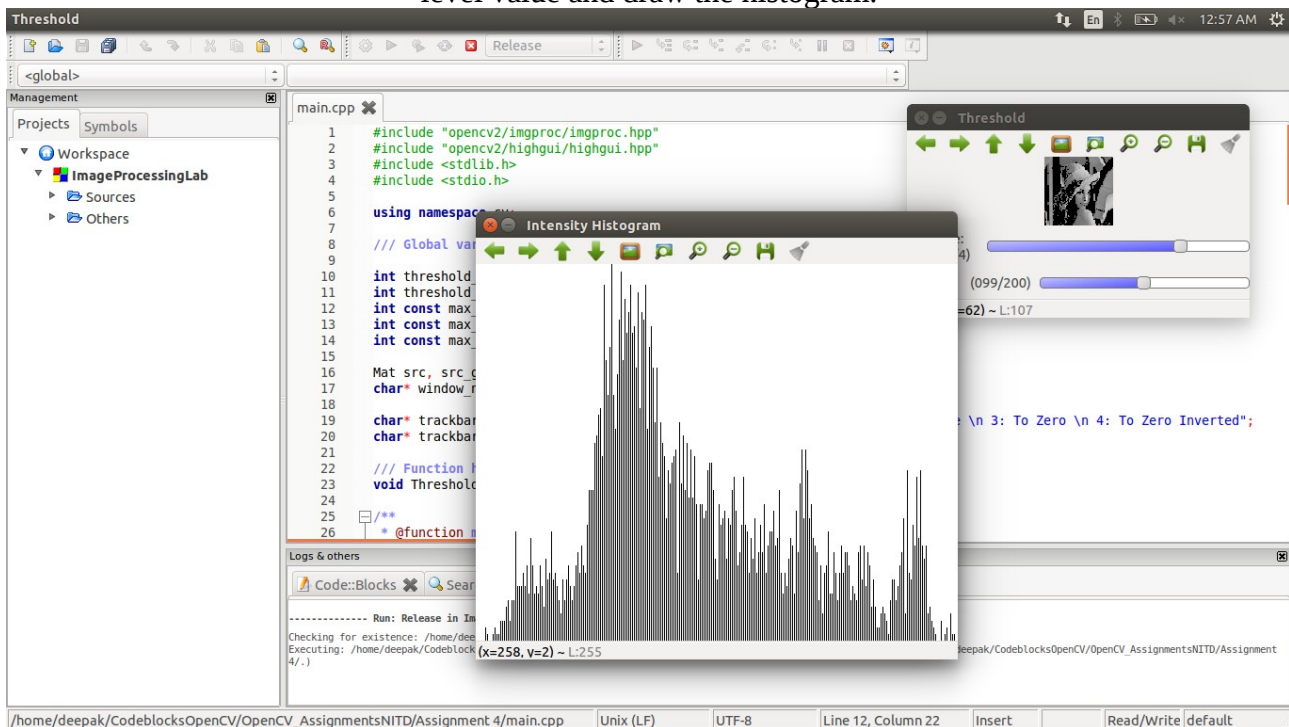
Output :



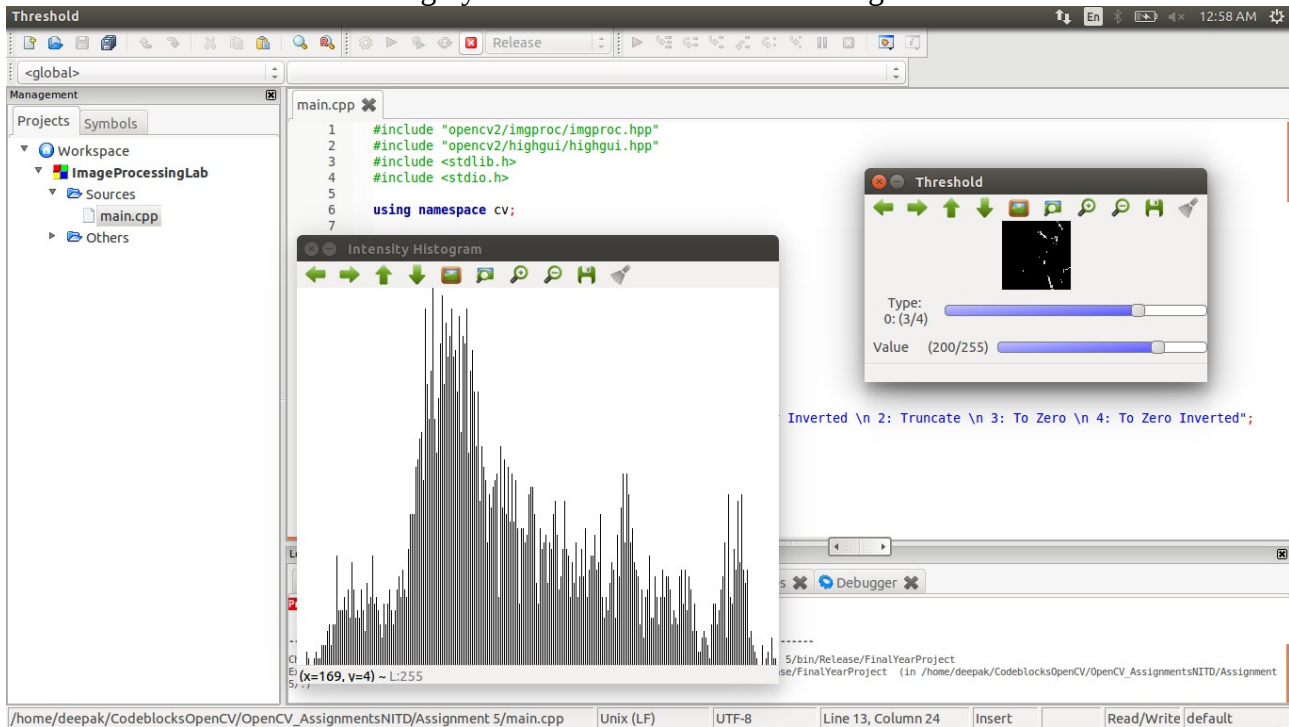
3. Write a program to apply Low level thresholding on 64\*64 image from 0 to 50 gray level value and draw the histogram.



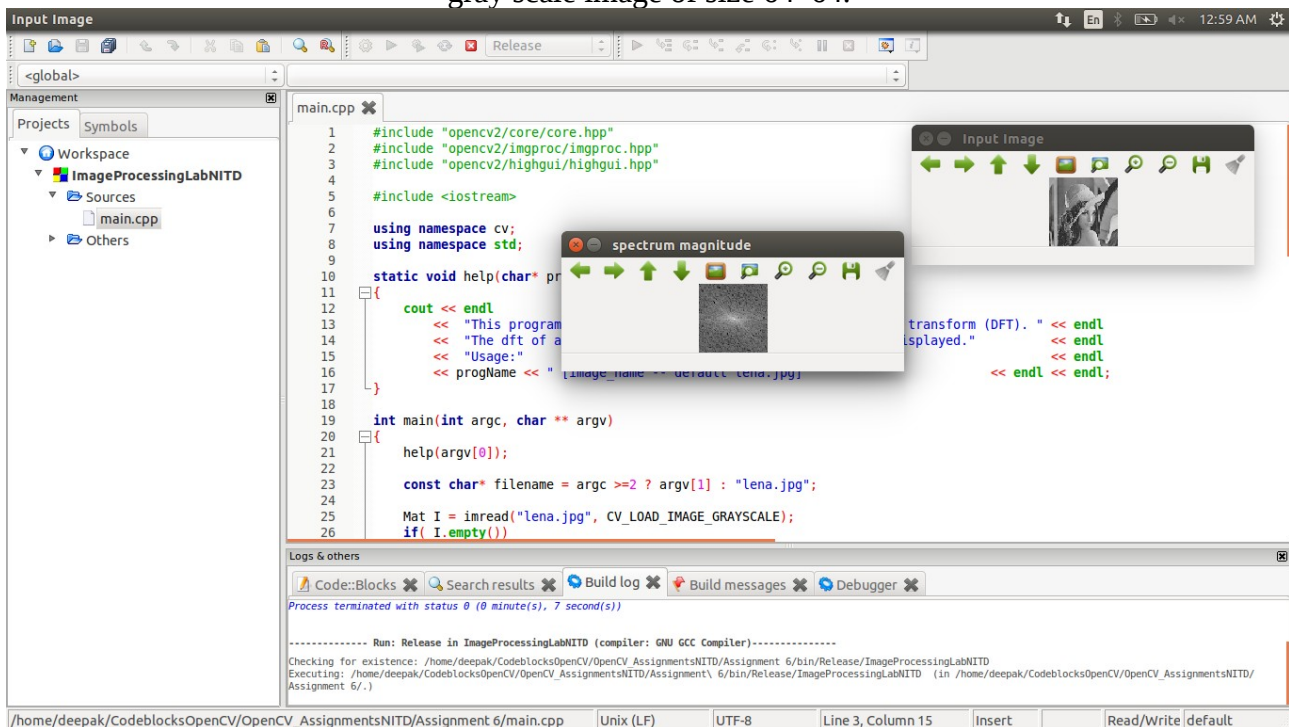
4. Write a program to apply thresholding on 64\*64 image from 50 to 200 gray level value and draw the histogram.



5. Write a program to apply High level thresholding on 64\*64 image from 200 to 255 gray level value and draw the histogram

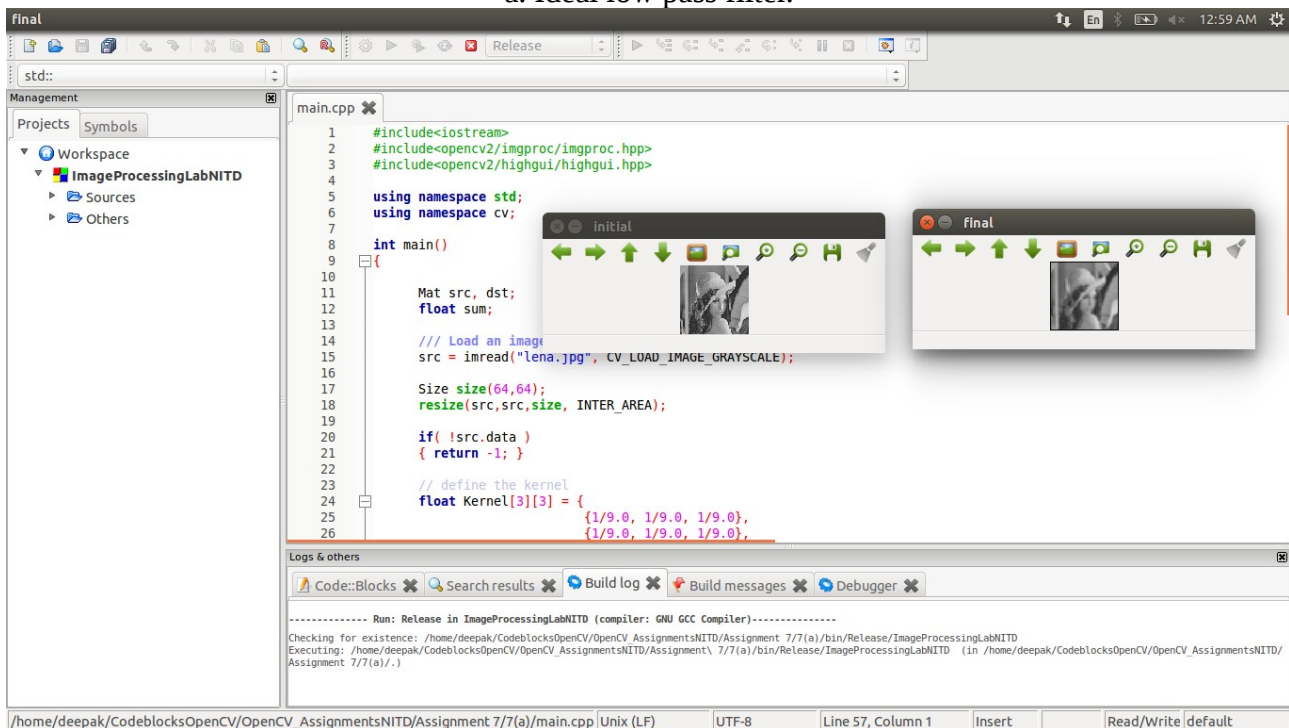


6. Write a program to determine Discrete Fourier Transform of an input image gray scale image of size 64\*64.

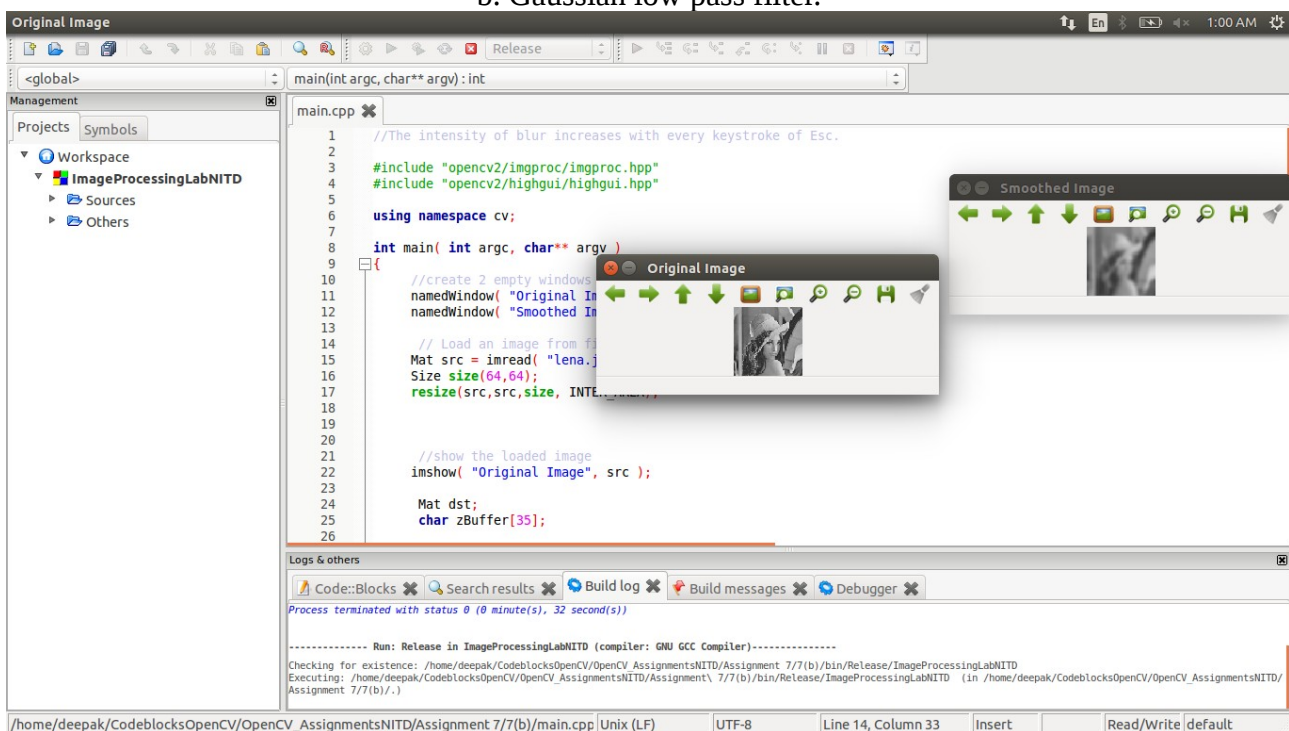




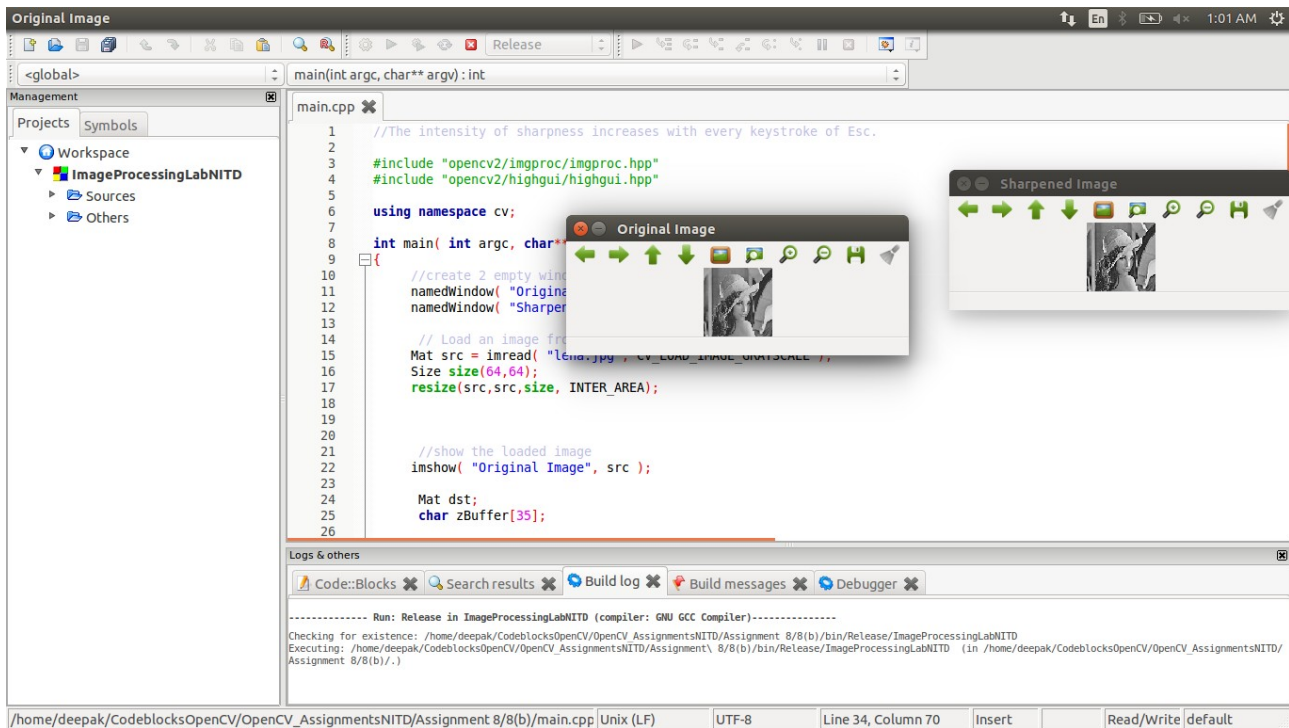
7. Write a program to apply following smoothing frequency domain filters to gray scale image of 64\*64 size.
- a. Ideal low pass filter.



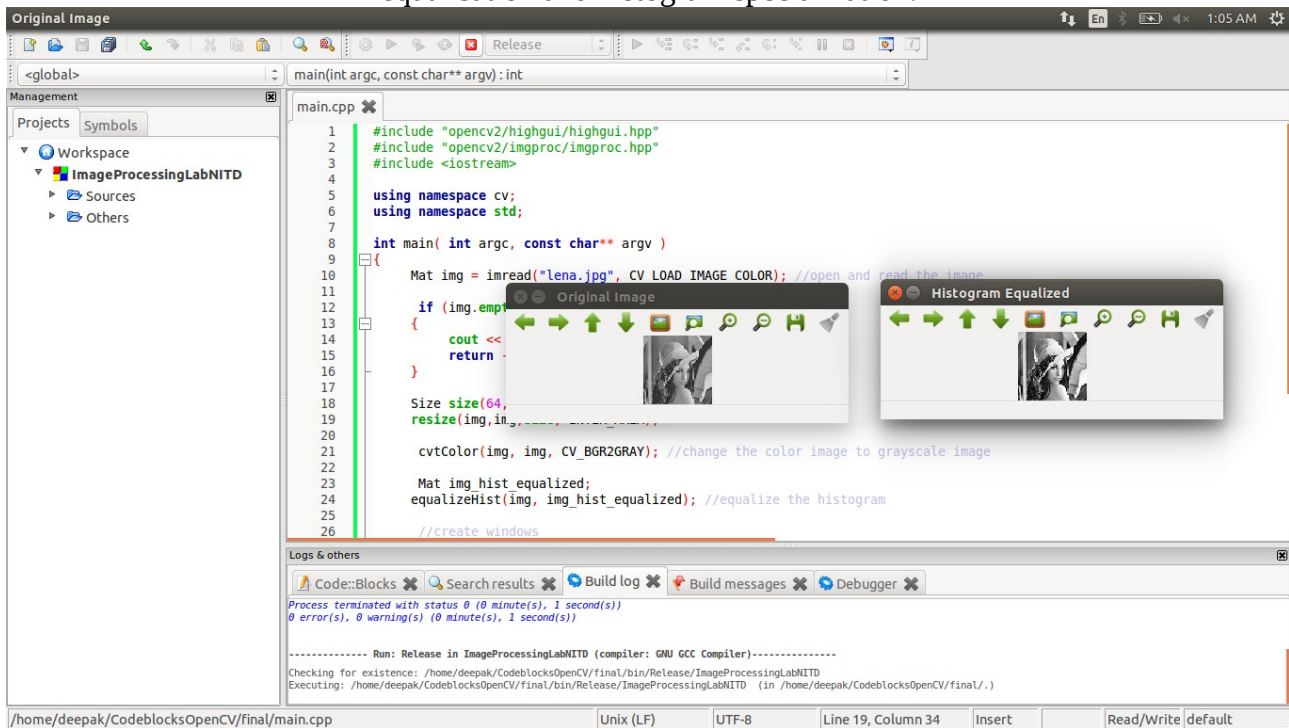
- b. Gaussian low pass filter.



8. Write a program to apply following Sharpening frequency domain filters to gray scale image of 64\*64 size.
- b. Gaussian high pass filter.



9. Write a program to apply local enhancement on 64\*64 image with histogram equalisation and histogram specialization.



11. Write a program to apply Min-Max, Median and Mean filters on input gray scale image of size 64\*64.

Median Filter :

