Report Assignment 1
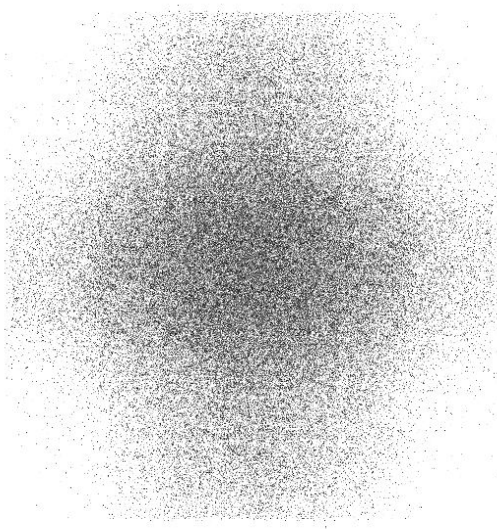
Question 5.
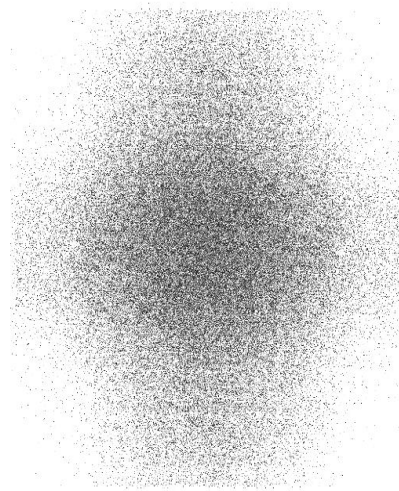
Input Image 1.

Output
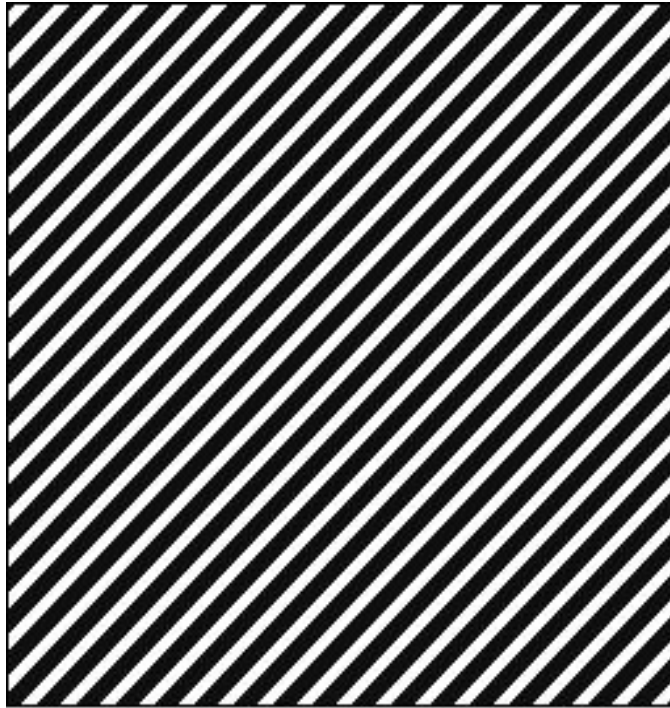**Implemented FFT**   **In-built FFT**

Input Image 2.
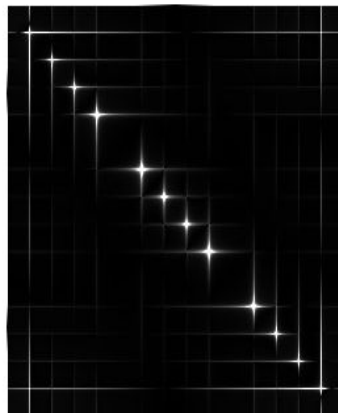
Output
    Implemented FFT   **In-built FFT**
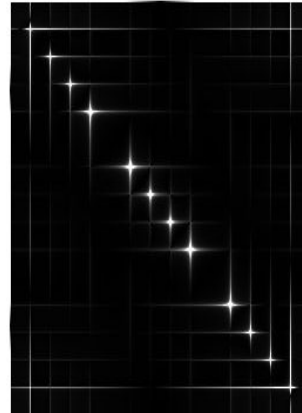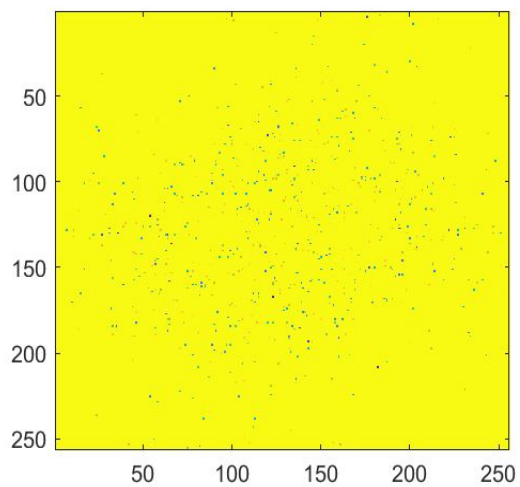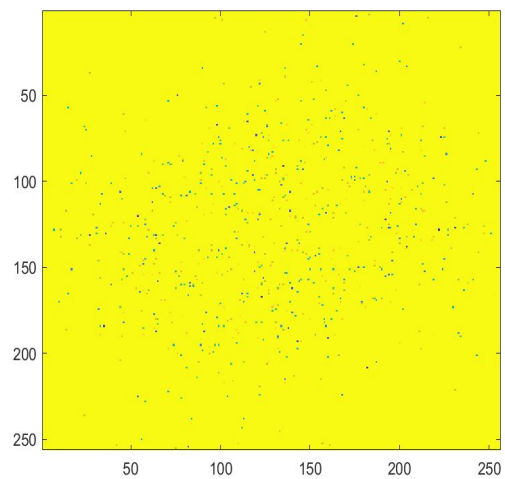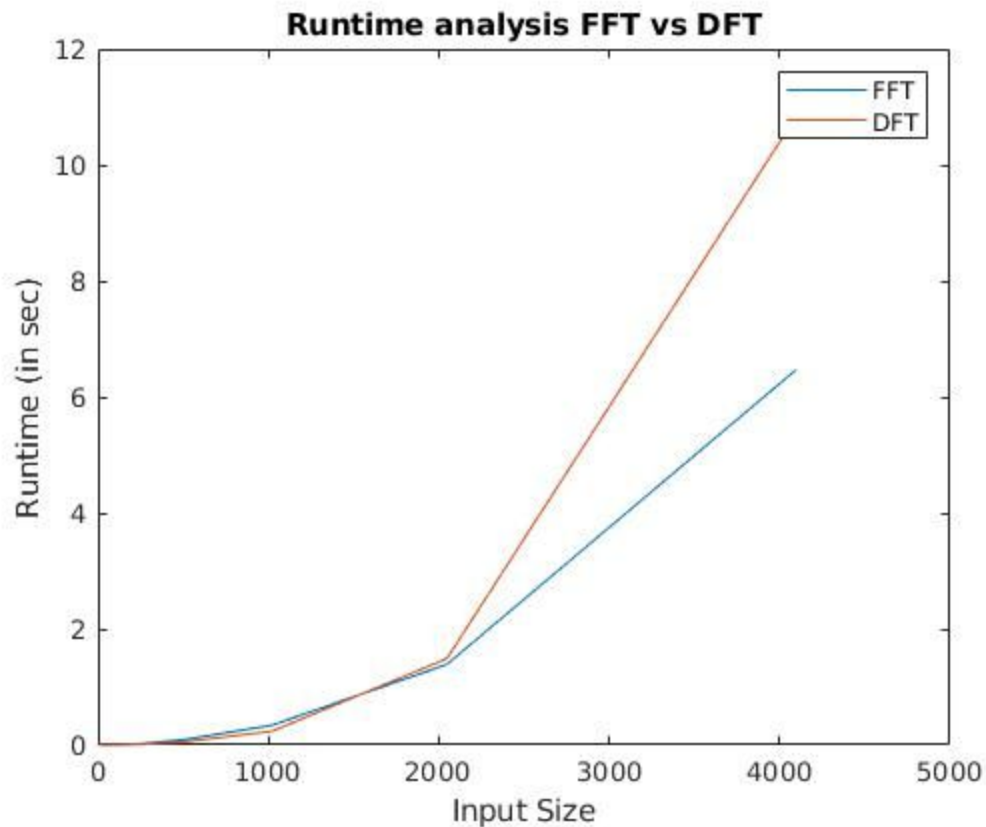
Input Image 3.

Output
Implemented FFT   **In-built FFT**

Runtime Comparison of DFT and FFT:

Runtime analysis FFT vs DFT

When the input is small the time taken by both FFT and DFT are same but when we increase the size of input DFT is increasing steeply than FFT . This implies that FFT has linear time Complexity and DFT has exponential time complexity