## **Week 9 Programs:**

- 1. Write a program in CUDA to add two matrices for the following specifications:
  - Each row of resultant matrix to be computed by one thread.
  - Each column of resultant matrix to be computed by one thread
  - Each element of resultant matrix to be computed by one thread
- 2. Write a program in CUDA to multiply two matrices for the following specifications:
  - Each row of resultant matrix to be computed by one thread.
  - Each column of resultant matrix to be computed by one thread
  - Each element of resultant matrix to be computed by one thread

## **CUDA Additional Exercises:**

- 1. Write a CUDA program to perform linear algebra function of the form  $y=\alpha x+y$ , where x and y are vectors and  $\alpha$  is a scalar value
- 2. Write a CUDA program to sort every row of a matrix using selection sort
- 3. Write a CUDA program to perform odd even transposition sort in parallel