Assignment 1 A

- 1. Space required to store any two-dimensional array is *number of rows* × *number of columns*. Assuming array is used to store elements of the following matrices, implement an efficient way that reduces the space requirement.
 - (a) Diagonal Matrix.
 - (b) Tri-diagonal Matrix.
 - (c) Lower triangular Matrix.
 - (d) Upper triangular Matrix.
 - (e) Symmetric Matrix
- 2. Write a program to implement the following operations on a Sparse Matrix, assuming the matrix is represented using a triplet.
 - (a) Transpose of a matrix.
 - (b) Addition of two matrices.
 - (c) Multiplication of two matrices.
- 3. Write a program to find sum of every row and every column in a two-dimensional array.
- 4. Write a program to find a saddle point in a two-dimensional array. A saddle point in a numerical array is a number that is larger than or equal to every number in its column, and smaller than or equal to every number in its row.
- 5. https://www.interviewbit.com/problems/spiral-order-matrix-i/
- 6. https://www.interviewbit.com/problems/spiral-order-matrix-ii/