

## Assignment 6-8

### Notes:

- a) **If you are intelligent enough, you can avoid repetitive code and write a group of function in a single program.**
  - b) **Try to write efficient code (less execution time and/or less space)**
  - c) **Due date:** Just After I mid term. CR will be responsible to collect the hard copies and submit to me with the list who have submitted (no soft copies will be allowed).
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1. Write a program to find multiplication of two matrices of size  $m \times n$  and  $n \times l$ .
  2. Write a program to find determinant of a  $3 \times 3$  matrix.
  3. Write a program to find sum of \_\_\_\_\_ of a  $5 \times 5$  matrix:
    - a) Diagonal elements
    - b) Reverse diagonal elements
    - c) Lower triangular elements
    - d) Upper triangular elements
    - e) Each row
    - f) Each column
    - g) all even values
    - h) all values divisible by 5
  4. Write a program to sort each row of a matrix.
  5. Write a program to sort each column of a matrix.
  6. Write a program to sort a matrix row wise.
  7. Write a program to sort a matrix column wise.
  8. Write a program to find inverse of a matrix.
  9. Write a program to find determinant of a  $n \times n$  matrix using recursive function.