

# List of Data Science Programs

1. Write a script to get the largest number from a list.
2. Write a program to remove duplicates from a list.
3. Write a script to convert a tuple to a dictionary.
4. Write a script to merge two python dictionaries.
5. Write a function that takes two lists and returns true if they have at least one common member.
6. Write a program to determine which one is the earlier date from the two given dates.
7. Write a script to subtract 5 days from current date.
8. Write a program to open a file and copy the contents to another file.
9. Write a program to capitalise each word in a file.  
***Hint - Use `str.upper()` method***
10. Write a program to search a word in a file and replace with another word.  
***Hint - Use `str.replace("old text", "new text")` method***
11. Write a program to count number of lines in a file.
12. Write a program to retrieve lines having two consecutive 1's.
13. Write programs to perform the following matrix operations. (Use matrices of order 3 X 3 )
  - (a) addition
  - (b) subtraction
  - (c) multiplication
  - (d) scalar multiplication
  - (e) transpose
14. Create the following matrices for various 2D geometric transformations.
  - (a) translation matrix
  - (b) rotation matrix
  - (c) scaling matrix
15. Create the following matrices for various 3D geometric transformations.
  - (a) translation matrix

(b) rotation matrix

(c) scaling matrix

16. Write a program to perform SVD (Singular Value Decomposition) of a square matrix of order 3. Reconstruct the original matrix from the components.

17. The marks obtained by students in a class are given below.

22,87,5,43,56,73,55,54,11,20,51,5,79,31,27

Draw a histogram of these marks for intervals 0 - 10, 10 - 20,..., 90 - 100.