**Worksheet 09 – Files**

1. The file ‘states.txt’ contains the names of the 50 US states. Write a program to read the contents of the file into a list, sort the states in alphabetical order, and then create another file (‘statesAlpha.txt’) containing the states in alphabetical order, one state per line.
2. The file ‘USPresidents.txt’ contains the names of the first 45 presidents of the United States. Write a program to read the contents of the file and display the presidents with the first name of ‘John’.

**Sample RUN:**

John Adams

John Q. Adams

John Tyler

John Kennedy

1. Using text wrangler, notepad, (or some text editor, create a ‘nums.txt’ file to contain the integers 6, 9, 2, 3, 6, 4, 8, 1, 7, 5 with each integer on a separate line. Once the .txt file is created, write a program to carry out the following tasks. Your program should include appropriate functions.
   1. Display the number of numbers in the file (how many)
   2. Display how many numbers are even
   3. Write the even numbers to a file ‘evens.txt’ with each number on a separate line.
   4. Display how many numbers are odd
   5. Write the odd numbers to a file ‘odds.txt’ with each number on a separate line.
   6. Display the largest number in the file
   7. Display the smallest number in the file
   8. Display the sum of the numbers in the file
   9. Display the average of the numbers in the file
   10. Display the last number in the file

**Sample RUN:**

[6, 9, 2, 3, 6, 4, 8, 1, 7, 5]

File contains 10 numbers.

5 of the numbers are even

5 of the numbers are odd

Largest number: 9

Smallest number: 1

Sum of numbers: 51

Average of numbers: 5.1

Last number: 5

**After RUN - Contents of evens.txt**

2

4

6

6

8

**After RUN - Contents of evens.txt and odds.txt**

1

3

5

7

9