File Handling Practice Problems

Instructions:

1. Both the **input.txt** and **source.cpp** files must be present in the same directory else you've to give the full path of the input file.
2. must enclose the input file name in double quotes with proper extension i.e. fin.open("input.txt");
3. Make sure, read the data from the input file into its corresponding dataType variables. If the input data is mixed-up, you can read into strings or characters.

Tasks

1. Create an input file named as "input.txt", store and save the following numbers into it. Write a C++ program to read numbers from the file and do the followings;

- ➔ Display the odd numbers on console
- ➔ Write the even numbers in another file, named as "evens.txt"
- ➔ Write the odd numbers in another file, named as "odds.txt"

input.txt : 3 6 9 12 15 18 21 24 27 30 40 49 60 69 80 89 100 109 120 500
evens.txt : 6 12 18 24 30 40 60 80 100 120 500
odds.txt : 3 9 15 21 27 49 69 89 109

2. Create an input file named as "input.txt", store and save the following numbers into it. Write a C++ program to read numbers from the file and do the followings;

- ➔ Count the primes and non-primes numbers
- ➔ Display the prime numbers on console
- ➔ Write the prime numbers in another file, named as "primes.txt"

input.txt : 7 10 13 16 17 25 29 37 50 69 103 113
primes.txt : 7 13 17 29 37 103 113

3. Write a C++ program to read the data from the current file in which you're coding i.e. "source.cpp" and do the followings;

- ➔ Count the total number of characters and display on console
- ➔ Count the total number of lines and display on console
- ➔ Count the total number of words and display on console
- ➔ Count the total number of vowels characters and display on console
- ➔ Display the contents of "source.cpp" in reverse order in another file "output.txt"

4.Create an input file named as "input.txt", store and save the following data into it. Write a C++ program to read the data from the file and do the followings;

- ➔ Create three 1-D arrays of fixed-size if following dataTypes i.e. string, string and int.
- ➔ Read the names, roll No's and marks and store into corresponding arrays
- ➔ Display the student name with highest marks
- ➔ Display the student name with lowest marks
- ➔ Find the average marks of all the students

Input.txt

Ahmad	f22-1098	70
Usman	f22-1098	49
Abdullah	f22-1098	64
Qasim	f22-1098	80
Akhtarlawa	f22-1098	100
Areesha	f22-1098	35

5. Create an input file named "matrix.txt", store and save the following data into it. Write a C++ program to read the data from the file and do the followings;

- ➔ Create three 2-D arrays of fixed-size having int dataType.
- ➔ Read the following data into corresponding 2-D arrays
- ➔ Find the maximum value from both the input matrices and print them on console
- ➔ Find the sum of main diagonals of input matrices and print them on console
- ➔ Multiply both the matrices and store the result into third array
- ➔ Write the third array (resultant matrix) into a files "result.txt"

matrix.txt

2 6 8 10
3 7 9 29
4 1 0 35

12 9 4
5 8 3
40 1 20
11 6 14