CS 170 ch.7 Lab 1

# Task 1

Question: **part A**

Write a program that reads 25 integers from a file called data.txt, then saves the numbers into an array of integers. Next, your program should print the numbers to a file called output.txt, lined up in a column, and followed by their total.

Last, calculate and print the average beneath the total in the file.

|  |
| --- |
|  |

|  |
| --- |
|  |

**part B**

Alter your code to demonstrate how your program would throw a FileNotFoundException.

|  |
| --- |
|  |

|  |
| --- |
|  |

# Task 2

Question: Strings and Files

Write a program that reads lines from a file named Mary.txt

**Mary.txt:**

   Mary had a little lamb,

   whose fleece was white as snow.

then prints the lines to another file called lineOutput.txt.

**Part B.**

Next, create a second Scanner object that reads word by word from the same file Mary.txt, and prints to a third file called wordOutput.txt, word by word.

|  |
| --- |
|  |

|  |
| --- |
|  |

# Task 3

Question: Arrays of Objects (Strings)  and Files

1. Declare an array of Strings, called **cd** with a size of 6.  
2. Fill the array by creating a new song with the title and artist and storing it in the appropriate  
position in the array. You need to read this information from the file Classics.txt that is  
provided.

[Classics.txt](https://coastdistrict.instructure.com/courses/113475/files/18482945?wrap=1)[Download Classics.txt](https://coastdistrict.instructure.com/courses/113475/files/18482945/download?download_frd=1)

You will need to read the title and the artist and merge them together before storing  
them into the array. You will need to merge the word “by” in between the two strings.

3. Print the contents of the array to the console and to an output file.  
4. Compile, debug, and run.

Your output should be as follows:  
  
Contents of Compact Disc  
========================  
Ode to Joy by Bach  
The Sleeping Beauty by Tchaikovsky  
Lullaby by Brahms  
Canon by Bach  
Symphony No. 5 by Beethoven  
The Blue Danube Waltz by Strauss

**Note: make sure to include snapshots of your input and output files (please label them)**

|  |
| --- |
| *Copy and paste a screenshot of your source code here.* |

|  |
| --- |
| *Copy and paste a screenshot of your test results here.* |