

CSCI 2916 Lab 4 – Week 4

Lab: File Input Output in Java

When data items are stored in a computer system, they can be stored for varying periods of time—temporarily or permanently. Temporary storage is usually called computer memory or random access memory (RAM). When you write a Java program that stores a value in a variable, you are using temporary storage; the value you store is lost when the program ends or the computer loses power. This type of storage is volatile.

Permanent storage, on the other hand, is not lost when a computer loses power; it is nonvolatile. When you write a Java program and save it to a disk, you are using permanent storage.

Files exist on permanent storage devices, such as hard disks, Zip disks, USB drives, reels or cassettes of magnetic tape, and compact disks. Computer files are the electronic equivalent of paper files often stored in file cabinets in offices.

When you work with stored files in an application, you typically perform all or some of the following tasks:

- Determining whether and where a file exists
- Opening a file
- Reading data from a file
- Writing information to a file
- Closing a file (<https://www.w3resource.com/java-tutorial/file-input-and-output.php>)

So, today we will be writing a program that will perform various input output operations:

Create a menu that looks like the following:

File Operations Menu

1. Enter Sales Figures (in File)-must be done first
2. Display Sales Figures
3. Display Total Sales
4. Exit Program

Enter Choice

Item 1 the user will need to enter sales figures based on the number of sales figures they state they have and save it to a file called sales.txt.

Item 2 should display the sales figures from the sales.txt created in item 1

Item 3 should display the total sales by reading and totaling the sales figures in sales.txt

Item 4 should exit/stop the program

The menu (as shown above) should be shown for input until the user selects 4 (Exit Program)

Sample Run

File Operations Menu

1. Enter Sales Figures (in File)-must be done first
2. Display Sales Figures
3. Display Total Sales
4. Exit Program

Enter Choice

7

Invalid selection, select 1-4

1

How many weeks of sales figures do you have to enter?

2

How many weeks of sales figures do you have to enter? 2

Enter week 1 sales figure: 579.56

Enter week 2 sales figure: 987.25

*****File Operations Menu*****

- 1. Enter Sales Figures (in File)-must be done first**
- 2. Display Sales Figures**
- 3. Display Total Sales**
- 4. Exit Program**

Enter Choice

2

579.56

987.25

*****File Operations Menu*****

- 1. Enter Sales Figures (in File)-must be done first**
- 2. Display Sales Figures**
- 3. Display Total Sales**
- 4. Exit Program**

Enter Choice

3

Total Sales 1,566.81

*****File Operations Menu*****

- 1. Enter Sales Figures (in File)-must be done first**
- 2. Display Sales Figures**
- 3. Display Total Sales**
- 4. Exit Program**

Enter Choice

4

Thanks for using the program

Extra Credit: Include 2 more options in the menu (i.e. average sales, etc.)

BEFORE YOU START WRITING CODE . . . On the back of this paper, sketch out:

- How will you create the menu?
- How will you deal opening the file, reading from the file, totaling up the values?

Guidelines for a good program:

- The program works, following the dialog and rules above.
- The code is clear and understandable:
 - Properly indented
 - Representative variable names
 - Blank lines separate logical sections of code
 - Appropriate comments included
 - Preamble documentation is included

Review program assignment rubric