

Homework Assignment #10 due Tuesday May 1, 2018

IO Streams

Problem 1:

Write a program to store multiple memos in a file. Allow a user to enter a topic and the text of a memo (the text of the memo is stored as a single line and thus cannot contain a return character). Store the topic, the date stamp of the memo, and the memo message.

Creating a `java.util.Date` object with no arguments will initialize the `Date` object to the current time and date. A date stamp is obtained by calling the `Date.toString()` method.

Use a text editor to view the contents of the output and to check that the information is stored correctly.

Part of the program code has been provided for you:

```
import . . . .

public class MemoPadCreator
{
    public static void main(String[] args) throws FileNotFoundException
    {
        Date now;
        Scanner console = new Scanner(System.in);
        System.out.print("Output file: ");
        String filename = console.nextLine();

        PrintWriter out = . . . .;

        boolean done = false;
        while (!done)
        {
            System.out.println("Memo topic (enter -1 to end):");
            String topic = console.nextLine();
            if (topic.equals("-1"))
            {
                done = true;
            }
            else
            {
                System.out.println("Memo text:");
                String message = console.nextLine();
                // Create the new date object and obtain a dateStamp
                out.println(topic + "\n" + dateStamp + "\n" + message);
            }
        }
        // Close the output file
    }
}
```

Problem 2:

Modify your memo writing program to read multiple memos stored in a text file. Memos are stored in three lines. The first line is the memo topic, the second line is the date stamp, and the third line is the memo message. Display the memos one at a time, and allow the user to choose to view the next memo (if there is one).

Part of the program code has been provided for you:

```
. . .

public class MemoPadReader
{
    public static void main(String[] args) throws IOException
    {
        Scanner console = new Scanner(System.in);
        System.out.print("Input file: ");
        String inputFileName = console.nextLine();

        File inFile = . . .;
        Scanner in = new Scanner(inFile);

        boolean done = false;
        while (in.hasNextLine() && !done)
        {
            String topic = . . .;
            String dateStamp = . . .;
            String message = . . .;
            System.out.println(topic + "\n" + dateStamp + "\n" + message);

            if (. . .) // You should only ask to display the next memo if
                       // there are more memos in the file
            {
                System.out.println("Do you want to read the next memo (y/n)?");
                String ans = console.nextLine();
                if (ans.equalsIgnoreCase("n"))
                {
                    done = true;
                }
            }
        }
    }
}
```