



Project 10: File Input and Output



Project 10

- This project consists of writing two programs.
 - One that reads a text file.
 - One that writes a text file.

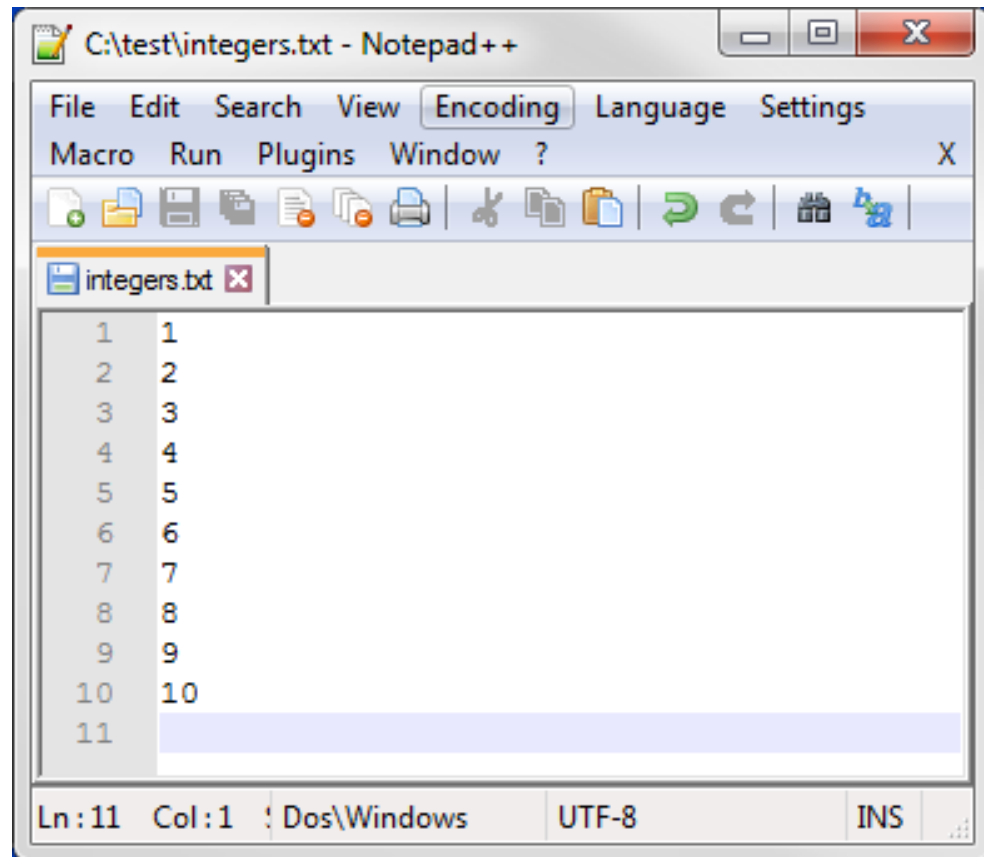


Program 1: Reading a Text File

- Write a program, `IntAve.java`, that reads a text file consisting of integer values and computes the arithmetic mean (*average*) of the values.
 - You will need to use the `nextInt` method of your scanner object.
 - You may assume that the file contains only integer values.
 - One integer per line.
- Let the program get the file name from the user.
- Create a text file with an editor and save it in your test directory to use as input when testing your program.

Example

File integers.txt

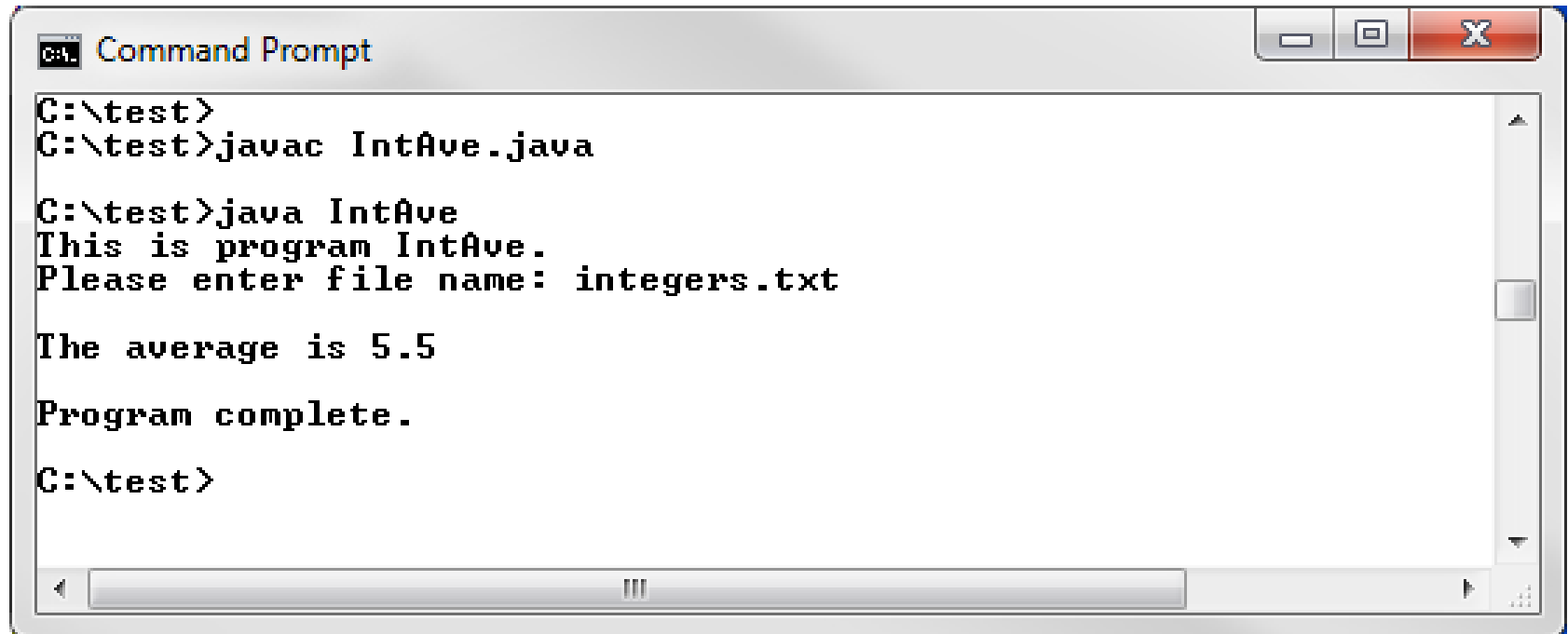


A screenshot of the Notepad++ application window. The title bar reads "C:\test\integers.txt - Notepad++". The menu bar includes File, Edit, Search, View, Encoding, Language, Settings, Macro, Run, Plugins, Window, and ?. The toolbar contains icons for opening, saving, printing, and other file operations. The tab bar shows "integers.txt". The text area contains the following content:

```
1 1
2 2
3 3
4 4
5 5
6 6
7 7
8 8
9 9
10 10
11
```

The status bar at the bottom indicates "Ln : 11 Col : 1", "Dos\Windows" line endings, "UTF-8" encoding, and "INS" insert mode.

Sample Run



```
C:\test>
C:\test>javac IntAve.java

C:\test>java IntAve
This is program IntAve.
Please enter file name: integers.txt

The average is 5.5

Program complete.

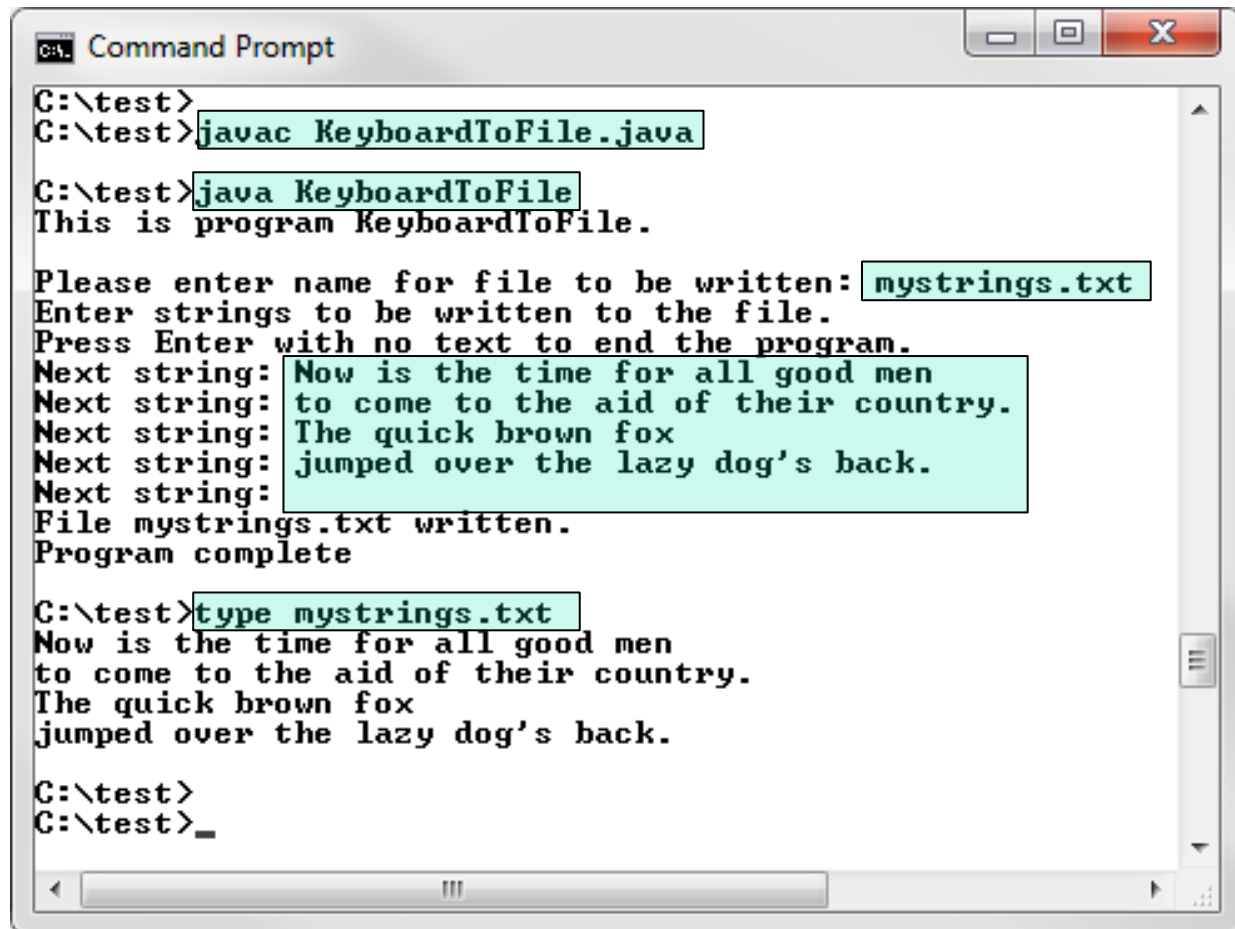
C:\test>
```



Program 2: Writing a Text File

- Write a program, `KeyboardToFile.java`, that reads an arbitrary number of strings from the keyboard and writes them to a text file.
- Let the program get the file name from the user.
- When the user enters a zero length string, close the output file and end the program.

Sample Run



```
Command Prompt
C:\test>
C:\test>javac KeyboardToFile.java
C:\test>java KeyboardToFile
This is program KeyboardToFile.

Please enter name for file to be written: mystrings.txt
Enter strings to be written to the file.
Press Enter with no text to end the program.
Next string: Now is the time for all good men
Next string: to come to the aid of their country.
Next string: The quick brown fox
Next string: jumped over the lazy dog's back.
Next string:
File mystrings.txt written.
Program complete

C:\test>type mystrings.txt
Now is the time for all good men
to come to the aid of their country.
The quick brown fox
jumped over the lazy dog's back.

C:\test>
C:\test>_
```



Submission

- Put your Java source files into a folder and zip it.
- Submit your zipped Java source files via Canvas Assignments.
- Project is due by 11:59 PM
 - Sunday, March 13 Sections 1 and 2
 - Monday, March 14 Sections 3 and 4
- Recommendation:

Do this project in your lab session or help session.



Ground Rules

- It is OK to *discuss* the project with other students BUT
 - Do not share your code with other students.
 - Before or after submitting the project.
- Do not copy any other student's code.
 - Or even look at it.
- Do not let anyone copy or examine your code.



Ground Rules

Except for code posted on the class web site

- Do not copy code from the Internet
 - or any other source (other than the textbook.)
- Do not ask for help on an Internet forum.
 - If you need help, ask your instructor or a TA.
 - Come to lab and help sessions.
- Write your own code.