

Discussion 4 handout

Requirements reminder

- Form a group of 2-4 classmates seated near enough to allow discussion. Part of the purpose of discussion sections is for you to learn to work *collaboratively* on technical problems (software is written by teams).
- Record the group's responses to each activity on a sheet of paper (the boxes on this handout highlight expected responses). Write the NetIDs of all group members at the top.
- Register your group in CMSX, then upload a photo of the work you completed in section by *Friday evening*.
- It is okay if you do not finish everything during section. Please work at the pace facilitated by your TA (discussion is not a race).

Group members (names & NetIDs)

- 1.
- 2.
- 3.
- 4.

Objectives

- Open text files given a file path
- Handle I/O exceptions
- Use `Scanner` to read text line by line
- Tokenize strings

Preparation: Demo code and word hunt files

Please download [dis04-release.zip](#), extract it to a known location on your computer, and open it as a project in IDEA. This discussion is more lecture-heavy than usual, so slides have been posted in advance to help you follow along. The classes `ReadLineDemo` should be similar to the later examples your TA will demonstrate and can be referenced along with the slides during the activity.

Task 1: Word hunt

One group member, the **driver**, should open "WordHunt.java" in their "dis04" IDEA project. They will be responsible for writing and running code. The other group members will serve as **navigators**, double-checking what is typed and suggesting solution structures to efficiently achieve the desired goal.

Implement `WordHunt.main()` to perform the following task:

- Read 13 lines of text from the file "index.txt" (in the project's root directory).
- On the 13th line, read 37 space-delimited entries.
- Extract a filename prefix, line number, and word number (delimited by hyphens) from the 37th entry.
- Append ".txt" to the filename prefix and open the corresponding file. Read the number of lines specified by the index entry, then read the specified number of words within that line.
- Report the last word read.

Run `WordHunt` and record both the index entry and the final word on your worksheet.

You may not have time to finish this exercise in class this week. In that case, complete your `WordHunt` program for homework, making sure all group members agree on the target word before submitting.

Submission

1. Open the assignment page for "Discussion activity 4" in CMSX
2. [Recorder] Find the "Group Management" section and invite each group member
3. [Others] Refresh the page and accept your invitation
4. [Recorder] Take a picture of your work and save as either a JPEG or a PDF file named "discussion_responses" (you do not need to submit your test code). *After all invitations have been accepted*, upload your picture along with your code as your group's submission.
 - Recommended scanning apps: Microsoft Office Lens, Adobe Scan, Genius Scan, Evernote Scannable

Ensure that your group is formed and your work submitted before the Friday evening deadline.

Tips and reminders

- Discussion is not a race. Focus on the current activity being facilitated by your TA and engage your whole group to propose and explain ideas.
- Elect a recorder to maintain the "master" copy of your work (others are still encouraged to jot down ideas on scratch paper). Rotate this position each week.
- It is a violation of academic integrity to credit someone for work if they were not present when the work was done, and the whole group is accountable. Your CMS group must only include classmates who attended section with you on that day. Remember that our participation policies accommodate occasional absences without penalty.

- It is your individual responsibility to ensure that you are grouped on CMS and that your group's work is submitted before the deadline. Log into CMS the day after section to ensure that everything is in order, and contact your groupmates if not. It would be prudent for multiple members to photograph the group's work.
 - Only one group member (typically the recorder) needs to upload a submission. But their submission must not be uploaded until after all group members have confirmed their membership in CMS (contact your TA if you have trouble grouping in CMS).
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