CptS 443/543—Human-Computer Interaction Spring, 2016

Individual Assignment #3

*Assignment worth*: 5%

*Due*: Jan. 31 by start of class

*Last modified:* 21 Jan. 2017

Overview

In this assignment, you will conduct a **cognitive walkthrough** of a task in the ALVIS Live! novice programming environment introduced in class.

The specific learning objectives for this assignment are as follows:

* To practice applying the cognitive walkthrough to a complex user interface
* To identify and clearly articulate potential usability issues with a user interface.
* To practice generating design solutions that can remedy the usability issues.

Specific Tasks

1. If you haven’t already, download and install the ALVIS Live! (version 2.1) software to your computer. You can obtain the software through this link:

<https://dl.dropboxusercontent.com/u/993001/ALVIS_Live%21_2.1.zip>

**Note**: The software runs only on Windows! If you do not have Windows, you will need to borrow someone’s computer, or use a Windows simulator, for this assignment.

Once you have downloaded the software, double-click “Setup.exe” in the Release folder and follow the wizard instructions to install the software.

1. Following the instructions detailed in the lecture slides from Thursday (“05-Cognitive-Walkthrough”), perform a cognitive walkthrough on the ALVIS Live! Software using the following task:

“Implement and execute the “find max” algorithm, which is to find the largest value in an array of 6 randomly-generated integers and store that largest value in a variable called maxsofar. It does this by iterating through the array, one value at a time, comparing each array value to the value in maxsofar (which should initially be set to zero). The value of maxsofar should be updated each time a new maximum is found.”

I have created a six-minute video that illustrates the correct sequence of steps for this task. Use this sequence as a basis for your cognitive walkthrough. You can access the video on YouTube at this link: <https://www.youtube.com/watch?v=_zihXBIjofs>

*To document your cognitive walkthrough process, fill in the tables in the CogWalkthrough-Worksheet provided as a supplementary document to this assignment. You will fill in one row for each task step.*

1. Based on your cognitive walkthrough, summarize your results, including successes, failures (usability issues), and any other findings generated through your walkthrough. For each usability issue identified, try to describe *why* the user will face difficulties, using concepts learned in class where possible. Conclude your report with a description of proposed design changes that will remedy each of the usability issues you identified. You are encouraged to use annotated screen shots or screen sketches to illustrate your suggested design changes.

*Note: The CogWalkhtrough-Worksheet includes prompts at the end to summarize your results and present suggested design changes. Use the space in the worksheet to write your responses to this question.*

Assessment

Your assignment will be scored on the following four-value scale:

|  |  |  |
| --- | --- | --- |
| Points | Meaning | Description |
| 0 | Missing | Assignment not submitted, or submitted late |
| 5 | Incomplete | Your report is incomplete or significantly deficient. Part of the report is missing or contains significant gaps. |
| 8 | Satisfactory | Report is complete but could be improved. Minor and obvious deficiencies exist with respect to one or more parts of the report |
| 10 | Exceptional | Report is complete and acceptable as is. No obvious deficiencies exist. The student has demonstrated mastery of the material. |

Handing in your Assignment

Submit your report as a **.pdf** file through OSBLE by the due date (go to the “Assignments” tab to submit it).