Individual Assignment #3
Assignment worth: 3% of course grade
Due: Feb. 1 by 11:59PM, 24hr late policy – 20% penalty.
Last modified: 24 January 2018

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 via the OSBLE+ files and links (Supplemental Reading and Documents folder) or via the assignment details page for this assignment.**

   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, extract the zip file contents and double-click "Setup.exe" in the Release folder, and follow the wizard instructions to install the software.

2. Following the instructions detailed in the lecture slides from Thursday ("05-Cognitive-Walkthrough") and the cognitive walkthrough supplemental document/link, 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."

   Dr. Hundhausen has 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.* ***This document is also found on the OSBLE+ files and links (Supplemental Reading and Documents folder) or via the assignment details page for this assignment.***

3. 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.

4. Include annotated screenshots or screen sketches to illustrate your suggested design changes proposed in step 3. One easy method to accomplish this would be via print screen (or alt + print screen to capture only the active window) and pasting the image into word and then adding annotations via the insert shapes and/or text boxes feature of MS Word. **Append these annotated designs to the end of the cognitive walkthrough worksheet for your submission.**

   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.

Deliverable

Your completed cognitive walkthrough worksheet with the annotated designs from step 4 appended to the end of the worksheet.

Assessment

Your assignment will be scored on the following scale:

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

Note: You will be expected to discuss your draft submissions during the class period the draft is due. Please be prepared to take an active part in the assignment discussions. Be prepared to present your photographs along with your analyses of their design.

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).