Individual Assignment #3
Assignment worth: 5% of course grade
Due: Feb. 9 by start of class
Late Policy: 10% per 24 hour late, up to 48 hours
Last modified: 2 February 2021

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.

Instructions

1. If you haven't already, download and install the ALVIS Live! (version 2.1) software to your computer. **You can obtain the software by following this link, or you can find the installer in the Lecture Slides folder on MS Teams.**

   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, 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 ("05-Cognitive-Walkthrough") and the cognitive walkthrough supplemental document, perform a cognitive walkthrough of 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. H 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*** *included with this assignment.* ***This document can also be found in the Individual Assignments folder on MS Teams. See also the document "IA3-Partial-Example" for an example of what is expected.***

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 (a) use a window snipping program to capture your screenshots or sketches (or hold down alt + print screen in Windows), (b) paste the screen capture into a MS Word, and (c) add 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. Please respond to these prompts.

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.

Handing in your Assignment

Submit to MS Teams your completed cognitive walkthrough worksheet with the annotated designs from step 4 appended to the end of the worksheet (in either .pdf or .docx format).