

# Software Maintenance, Evolution & Re-engineering

## Spring 2025

### Individual Software Accessibility Assignment 4: Understanding Software Accessibility

Assignment due date: **May 11**

## 1. Goal of the assignment

In this assignment, same as in the first one, you will answer a set of questions on the topic of accessibility. **This is an individual assignment**; therefore, you are NOT to discuss your answers with other classmates.

**Note:** This assignment is to be answered with the current knowledge (after you learn from the lectures and other assignments) you possess on the topic. **Please do not look for external resources to answer the questions below.** The assignment will be graded based on the effort (i.e., if the questions are attempted and answered with detail, when applicable), not if the answers are correct (and in many cases, there are no correct/incorrect answers). Additionally, we expect to see a significant difference from the answers provided in the Individual Software Accessibility Assignment 1.

## 2. Software Accessibility in General

Answer the following questions to the best of your understanding:

- a. What comes to your mind when you think about software accessibility? Answer this question using a cluster diagram. The cluster diagram's main theme should be software accessibility, and it should have at least seven subcategories related to it. Each of these subcategories should, in turn, include three related subtopics. For more information on how a cluster diagram is built, you can visit the following website: <https://www.glimpy.com/blog/cluster-diagram>.
- b. After the software accessibility lectures covered in class, how important do you now consider learning about accessibility in software engineering? Choose one of the options below and explain your choice. Has your perspective changed since you first answered this question? Explain why or why not.
  - Very important
  - Important
  - Neutral
  - Unimportant
  - Very unimportant
- c. Over the past decade, the topic of accessibility has been gaining importance in the software engineering field, why do you think that is? Base your answer on the software accessibility lectures covered in class.

## 3. Software Accessibility in Requirements

- a. Is accessibility a functional requirement, a non-functional requirement, or both? Explain. Has your perception changed since you first answered the question? Explain why or why not?
- b. Given that accessibility requirements focus on how individuals with disabilities interact with technology, identify at least three issues they may encounter that you were not aware were considered accessibility issues prior to taking this class.
- c. How useful are the Web Content Accessibility Guidelines (WCAG) in the requirements phase of the software development? Explain.

## 4. Software Accessibility in Design and Development

- a. Name three similarities and three differences between designing for web accessibility and designing for mobile accessibility.

- b. Name three good practices that a software engineer should have when designing and developing for accessibility. Base your answer on the software accessibility lectures covered in class.
- c. Has your perception of the importance of keeping in mind assistive technologies when designing software changed? Explain why or why not.
- d. What are some current challenges or limitations associated with assistive technologies? Provide at least two examples.

## 5. Software Accessibility in Testing and Evaluation

- a. What aspects of software are currently not evaluated in accessibility testing but, in your view, should be? Explain.
- b. Based on the previous two assignments (i.e., Manual Testing and Automated Testing), which is the best approach to test accessibility: automated testing, manual (user) testing, or both? Explain (be specific and use examples).
- c. What do you think is currently lacking in software accessibility testing? Explain.

## 6. Deliverables

There is one deliverable for this assignment:

1. **PDF file:** A PDF file must be submitted on eLearning and should contain the answer to each one of the questions asked in Sections 2-5.

## 7. Grading

Item	Points
Answers to Section 2	25
Answers to Section 3	25
Answers to Section 4	25
Answers to Section 5	25
<b>Total</b>	<b>100</b>

You will receive points off if:

- There are missing answers
- Your document contains typos and writing errors