

## Video Sorting and Searching Portfolio Assignment

We have now concluded our sorting presentations. Thank-you to all of the groups for the informative presentations and engaging activities that have been created. After the completion of all the presentations you should have collected a set of resources that would include all of the note sheets and activities that were provided. Using those resources, you are to create a video where you will include the following:

### Sorting:

- Using your own words, a description of how each of the sorting algorithms presented works.
  - You may use diagrams, examples, etc. to aide you in your explanation
- Discuss the efficiency of the algorithm, the number of passes, number of comparisons, time complexity where applicable.
  - Include any relevant formulas
- Discuss the pros/cons of each sort
- What is each sort best suited for, use examples to help explain

### Searching:

- Explain how both sequential and binary search work in your own words.
- Use an example, diagram, demonstration, etc. to help explain.
- Show and explain a sample implementation of each.

### What to include in your submission:

- All of the note taking sheets and completed activities compiled into one portfolio (hard copy)
- Video that will demonstrate your knowledge of each of the sorts and searches presented – be sure to summarize information in your own words.

### Additional notes:

- **This is an individual assignment, please do not share content, explanations, inclusions with your peers**
- You can use [Screencast-o-matic](#) or any other screen recording app to help you create your presentation
- Your video should be between 5 and 10 minutes long and should **not** exceed 10 minutes
- Late submissions will receive a deduction of 2% per day up to 10%.
- Assignment not submitted will receive a mark of 0.

## ACHIEVEMENT CHART: COMPUTER STUDIES, GRADES 10–12

categories	50–59% (level 1)	60–69% (level 2)	70–79% (level 3)	80–100% (level 4)
Knowledge and understanding – Subject-specific content acquired in each course (knowledge), and the comprehension of its meaning and significance (understanding)				
	The student:			
Knowledge of content (e.g., facts, technical terminology, definitions, procedures, standards)	demonstrates limited knowledge of content	demonstrates some knowledge of content	demonstrates considerable knowledge of content	demonstrates thorough knowledge of content
understanding of content (e.g., concepts, principles, methodologies, use of tools)	demonstrates limited understanding of content	demonstrates some understanding of content	demonstrates considerable understanding of content	demonstrates thorough understanding of content
thinking – The use of critical and creative thinking skills and/or processes				
	The student:			
use of processing skills (e.g., analysing, interpreting, assessing, reasoning, evaluating, integrating, synthesizing)	uses processing skills with limited effectiveness	uses processing skills with some effectiveness	uses processing skills with considerable effectiveness	uses processing skills with a high degree of effectiveness
use of critical/creative thinking processes (e.g., evaluation of computer solutions, problem solving, decision making, detecting and correcting flaws, research)	uses critical/creative thinking processes with limited effectiveness	uses critical/creative thinking processes with some effectiveness	uses critical/creative thinking processes with considerable effectiveness	uses critical/creative thinking processes with a high degree of effectiveness
communication – The conveying of meaning through various forms				
	The student:			
Expression and organization of ideas and information (e.g., clear expression, logical organization) in oral, visual, and written forms, including electronic forms (e.g., presentations, charts, graphs, tables, maps, models, web pages, reports)	expresses and organizes ideas and information with limited effectiveness	expresses and organizes ideas and information with some effectiveness	expresses and organizes ideas and information with considerable effectiveness	expresses and organizes ideas and information with a high degree of effectiveness

categories	50–59% (level 1)	60–69% (level 2)	70–79% (level 3)	80–100% (level 4)
communication (continued)				
	The student:			
communication for different audiences (e.g., peers, computer users, company supervisor) and purposes (e.g., to inform, to persuade) in oral, visual, and written forms, including electronic forms	communicates for different audiences and purposes with limited effectiveness	communicates for different audiences and purposes with some effectiveness	communicates for different audiences and purposes with considerable effectiveness	communicates for different audiences and purposes with a high degree of effectiveness
use of conventions, vocabulary, and terminology of the discipline in oral, visual, and written forms, including electronic forms	uses conventions, vocabulary, and terminology of the discipline with limited effectiveness	uses conventions, vocabulary, and terminology of the discipline with some effectiveness	uses conventions, vocabulary, and terminology of the discipline with considerable effectiveness	uses conventions, vocabulary, and terminology of the discipline with a high degree of effectiveness
application – The use of knowledge and skills to make connections within and between various contexts				
	The student:			
application of knowledge and skills (e.g., concepts, procedures, processes, use of tools) in familiar contexts	applies knowledge and skills in familiar contexts with limited effectiveness	applies knowledge and skills in familiar contexts with some effectiveness	applies knowledge and skills in familiar contexts with considerable effectiveness	applies knowledge and skills in familiar contexts with a high degree of effectiveness
making connections within and between various contexts (e.g., between computer studies and personal experiences, opportunities, social and global challenges and perspectives; between subjects and disciplines)	makes connections within and between various contexts with limited effectiveness	makes connections within and between various contexts with some effectiveness	makes connections within and between various contexts with considerable effectiveness	makes connections within and between various contexts with a high degree of effectiveness

**Note:** A student whose achievement is below 50% at the end of a course will not obtain a credit for the course.