Study Guide for Final Exam (Comprehensive – Chapters 9-12, and 15-17) Last Updated: 1/10/2022 9:43 PM

1. Review and practice the following ***(practice make it perfect 😊)***:
    a. **Canvas Quizzes**: I suggest reviewing the canvas quizzes multiple times. Some questions will be exactly as they appear in the quiz, and some will have minor changes (numbers, etc.…).
    b. **Revel Quizzes** and **Self-Check** Questions within **Revel** for each chapter.
    c. **(MID) Exam REVIEW Sheet** within Module 9.
    d. **(FEO) Exam REVIEW Sheet** within Module 13.
2. Understand the following:
    a. Objects & Classes: Definitions, adding data fields and functions, instantiate objects, class abstraction and encapsulation, working with instances/objects,
    b. Object Oriented Thinking: Processing strings using string class, passing objects as function arguments, processing objects in arrays
    c. Pointers and Dynamic Memory Management: Declaring and accessing values/arrays via pointers, passing pointer arguments to a function, returning pointer from a function, creating dynamic arrays, creating/accessing objects dynamically
    d. Templates, Vectors, and Stacks: Defining and using templates, using vector class, replacing arrays using vectors, parsing/evaluating expressions using stacks
    e. Inheritance and polymorphism: understand superclass/subclass, understand polymorphism and dynamic binding
    f. Exception Handling: knowing how to throw/catch exceptions
    g. Recursion: summing a range of list with recursion, printing a recursive pattern, recursion vs. iteration