

DAILY QUESTIONS

WEEK 1 - TH	<p>Describe the four major operations that occur in a computer. Discuss input and output devices. Explain the purpose of compilers or interpreters. What is the importance of correct program logic? Describe the components of a flow chart and how they are used to connect various sections of the flowchart. What purpose does a sentinel value have? Define the concepts of a variable, and what is the difference between the variable's memory address and its contents (or value)?</p> <p>Software testing occurs near the end of the programming process. Because of this, if a project falls behind schedule, testing time is often reduced. Discuss the possible impacts of not performing thorough testing. Topics might include company reputation, customer dissatisfaction, ability of the company to sell new or updated products, etc. Discuss which is worse: releasing a product late or releasing it on time but not fully tested.</p>
WEEK 2 - T	Discuss the importance of planning out a program on paper before writing the actual code. What are some of the advantages of doing this?
WEEK 2 - TH	Discuss why it is important to write code with future maintainability in mind. What kinds of maintenance might be done on an existing program?
WEEK 3 - T	Define 10 concept and elements that can be used in Alice. What is a computer program?
WEEK 3 - TH	Make a 5 panel storyboard, define the to-do-list, and provide an algorithmic list of steps that defines the sequences and actions.
WEEK 4 - T	Define how an If/Else statement works. What are the control structures, instruction, functions and expressions? What is a loop? Give me an example code of each.
WEEK 4 - TH	What is object-oriented programming? How is it different from procedural programming? What are Classes and Objects and how do they affect the environment?
WEEK 5 - T	What are "Methods" and "Parameters" and how do they affect the environment? Define how you call and delete a method and subsequent methods. Define how you call a single and multiple parameters
WEEK 5 - TH	What is an event and how is it used? What does it mean by using event-driven programming? How do a parameter and event handling work in unison? What is incremental development?
WEEK 6 - T	What are functions and how do we use them? What types of functions are there, and where are they used?
WEEK 6 - TH	Give me examples of If/Else and Boolean functions, Return statements. How do we use multiple conditions in our expressions? Define other logical operators.
WEEK 7 - T	Define definite and indefinite loops and how you use loops with the Do, If, While statements? Define nested statements.
WEEK 7 - TH	Define recursion and case methods. When do you use recursion? Give an example of recursion programming.
WEEK 8 - T	Discuss some examples of casual (and incorrect) use of AND and OR decisions. As a programmer, how might you ensure that the problem is well defined before

	you start coding?
WEEK 8 - TH	Discuss the use of decision tables. While simple sets of decision conditions can be easily developed, what happens to the number of combinations of Boolean values when the number of conditions increases?
WEEK 9 - T	Discuss why user documentation is seldom used as a first means for an end user to get help. Why do you think this is the case? Do you read the user guide for software that you purchase? What could be done to rectify this?
WEEK 9 - TH	Discuss who should create each of the documentation types described in this chapter, as well as who should have final approval for each type. Who are the major stakeholders for each type of documentation, and what impact will poor documentation have on them?
WEEK 10 - T	Discuss the differences between pretest and posttest loops. Can you think of some examples when a posttest loop would be the best structure to use?
WEEK 10 - TH	Besides looping to read through and process sets of data, can you think of other uses for loops?
WEEK 11 - T	Consider the structure of a class roster for a university course. It contains a row for each student enrolled in the course. What might the array used to produce this report look like? Discuss the elements that would be needed in this structure.
WEEK 11 - TH	At what point should you consider changing from individual variables to an array? Is it reasonable to use an array when you only have two or three items to track? Why or why not? Consider the number of sets of those two or three items when making your decision.
WEEK 12 - T	When creating an application, at what point in the design process should coupling and cohesion be considered? Why? How can you incorporate coupling and cohesion concerns into the design documents?
WEEK 12 - TH	Discuss the concept of a library of prewritten modules. There are many such collections of modules for specific industry-related tasks. Do you think it is possible to write an entire application using only prewritten modules? What aspect of the prewritten modules would support this approach and what aspects would not?
WEEK 13 - T	Name the three aspects of a module that an IPO chart details. Why are they important? What four things must you know to use a built-in method and why?
WEEK 13 - TH	When creating an application, at what point in the design process should coupling and cohesion be considered? Why? How can you incorporate coupling and cohesion concerns into the design documents?
WEEK 14 - T	Discuss the importance of "clean" data for creating reports with control breaks. What effects will misspellings or missing data have on a report with control breaks? On group totals?
WEEK 14 - TH	You have been hired to create a new set of reports for a doctor's office from their existing database. There are two doctors in the office, and each performs multiple procedures. The number of patients seen each day varies. They want reports that will allow them to analyze each day's activities. List the reports that you would propose and what each report will show. Describe any control breaks

	that will be necessary for each report. Design a flowchart for the project.
WEEK 15 - T	Define what the key elements you learned in this class.
WEEK 15 - TH	Define what you feel would improve this class.