Chapter 05

What is a loop control structure in programming?
A loop control structure is a programming construct that allows repetitive execution of a block of code based on a condition. It enables automating tasks that require repeated execution without writing the same code multiple times.

What is the structure of a loop?
The structure of a loop typically consists of an initialization step, a condition for loop continuation, and an update step. These components together ensure that the loop iterates through a block of code until the specified condition becomes false.

What are the types of loop structures in programming?
The types of loop structures in programming include the for loop, the while loop, and the do-while loop

What is the while statement?
The while statement is a loop structure in programming that repeatedly executes a block of code as long as a specified condition is true. It evaluates the condition before each iteration.

What is the do-while statement?
The do-while statement is a loop structure in programming that executes a block of code at least once, and then repeats it as long as a specified condition is true. It evaluates the condition after each iteration.

What is the difference between the while() and do-while() loops?
The primary difference between the while() and do-while() loops is that the while loop evaluates the condition before executing the block of code, while the do-while loop evaluates the condition after executing the block of code at least once.

What are nested loops?
Nested loops are loops placed inside another loop's body. This arrangement allows for multiple levels of repetition, with the inner loop completing its iterations for each iteration of the outer loop. They are commonly used for iterating over two-dimensional arrays or performing tasks that require nested iterations.