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**Question**  
Explain Loop & Switch Scanner.

Solution.

1. Loop:

A loop in a computer program is an instruction that repeats until a specified condition is reached. In a loop structure, the loop asks a question. If the answer requires action, it is executed. The same question is asked again and again until no further action is required. Each time the question is asked is called an iteration. Below are some of the loops we have.

* A**for** loop
* A**while** loop
* A**do while** loop or **repeat until** loop
* An **infinite** or **endless** loop
* A**nested** loop

1. Switch Scanner

**Switch statement** is a type of selection control mechanism used to allow the value of a [variable](https://en.wikipedia.org/wiki/Variable_(programming)) or expression to change the [control flow](https://en.wikipedia.org/wiki/Control_flow) of program execution via search and map. Switch statements function somewhat similarly to the if statement used in programming languages like [C](https://en.wikipedia.org/wiki/C_(programming_language))/[C++](https://en.wikipedia.org/wiki/C%2B%2B), Switch statements come in two main variants: a structured switch, as in Pascal, which takes exactly one branch, and an unstructured switch, as in C, which functions as a type of [goto](https://en.wikipedia.org/wiki/Goto" \o "Goto). The main reasons for using a switch include improving clarity, by reducing otherwise repetitive coding, and (if the [heuristics](https://en.wikipedia.org/wiki/Heuristic) permit) also offering the potential for faster execution through easier [compiler optimization](https://en.wikipedia.org/wiki/Compiler_optimization) in many cases.