

### ➤ Fibonacci sequence

- The Fibonacci sequence is a set of numbers that starts with a one or a zero, followed by a one, and proceeds based on the rule that each number (called a Fibonacci number) is equal to the sum of the preceding two numbers.
- The code written through Python Language uses the concept of loops & functions.
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- We have created the if-else loops two times because the user might input a negative number & we know that the Fibonacci number does not contain any negative numbers.
- In the end, we perform a for-loop operation that prints the numbers till the user desires.

### ➤ Switch Case Enumerations

- A switch statement allows a variable test for equality against a list of values. Each value is called a case, and the variable an operation switched on checks for each case.
- Once a match is made, all the code in the switch case, including and following that match will be executed until we hit a break statement.
- Enum or enumeration is a data type consisting of named values like elements, members, etc., that represent integral constants.
- In this the enumerations are the directions in a map- west, east, north, south.

### ➤ Using Recursion to add the sum of digits:

- The process in which a function calls itself directly or indirectly is called recursion and the corresponding function is called as recursive function.
- Logic to approach this problem:
  1. Firstly, find the last number using modular division by 10.
  2. Adding the last digit found above to the 'sum' variable.
  3. Remove last digit from given number by dividing it by 10.