

Assessment NodeJS

1. Write a recursive function `foo(int n)` that returns F_n where $n = 0$, then `foo(0)` should return 0. If $n = 1$, then `foo(1)` should return 1 and if $n > 1$, it should return $F_{n-1} + F_{n-2}$. Based on the user input value system should return the value.

Sample Results: `foo(0) = 0`, `foo(1) = 1`, `foo(2) = 1`, `foo(3) = 3`, `foo(4) = 5`

2. Read a text file (file should be in base64 format) and save that data in MongoDB. You have to use a non-blocking asynchronous method and events.
3. Write a function to reverse a string without affecting special characters. Given a string that contains special characters together with alphabets ('a' to 'z' and 'A' to 'Z'), reverse the string in a way that special characters are not affected.

Examples:

Input: "a,b\$c"

Output: "c,b\$a"

Input: "Ab,c,de!\$"

Output: "ed,c,bA!\$"

4. Implement an API to generate a CSV report from a MongoDB collection. (You can use any MongoDB collection and module to implement this functionality)

Language: Node Js

Database: Mongo DB

Note: You have to create a node server using Express.js. You have to create 4 different API endpoints and get the user input.