

Assignment Week 3 - B

Operation Avenger Revelation

You are Melinda, a coding prodigy who also happens to be a die-hard Marvel fan.

One day, you stumbled upon a news article reporting that Marvel has just conducted auditions for the next generation of Avengers actors. Your curiosity piques as you wonder who the chosen Avengers are, but their results are shrouded in secrecy.

Fuelled by curiosity, you decide to put your hacking skill to the test. With your brilliant mind and skills, you managed to infiltrate Marvel's highly secured database. Inside the database, you met with a sight of cryptic symbols and codes guarding the Avengers identities.

Iron Man	: 9\$@!H#7L
Captain America	: M\$@!#NH*
Hulk	: 3\$@!UG?
Thor	: 3\$@!US7N*
Hawkeye	: K\$@!79#N
Black Widow	: J\$@!#3*O

The challenge is clear: decrypt these names and unveil the identity of the Avengers.

Remember, time is of the essence! The Avengers community is counting on you to reveal the actors' identities.

Scoring criteria:

Code Result : 80%

Code Effectiveness / Cleanness : 20%

How to Solve

You uncover a hidden folder containing a set of clues. The folder contents offer glimpses into the decryption process:

- Replace "#" with "I"
- Replace "?" with "A"
- Replace "*" with "O"
- Replace "3" with "S"
- Replace "7" with "E"
- Replace "9" with "V"

Instructions

1. Store those encrypted Avengers cast names into an array of string
2. Store the decryption keys into an array like this

```
const decryption_keys = [  
  { from: "#", to: "I" },  
  { from: "?", to: "A" },  
  { from: "*", to: "O" },  
  { from: "3", to: "S" },  
  { from: "7", to: "E" },  
  { from: "9", to: "V" },  
];
```

3. Use looping to go through each cast names in the array and replace the characters based on above keys
4. After replacing, all the names have similar characters that aren't needed apparently! Remove those characters.
5. Display the final names in your terminal

Note:

- You can use a loop inside another loop if needed to help make your code more efficient
Example:

```
for (let i = 0; i <= 10; i++) {  
  for (let j = 0; j <= 5; j++) {  
    // code to be run  
  }  
}
```

- Remember you cannot reassign character in a string variable, so you will have to change the text to array first and convert it back to string.
- You can use **String.split("")** and **Array.join("")** method to help you do this (split to change string to array; and join to change an array to string)
- You can also use **Array.replace()** methods to help you

References:

- https://www.w3schools.com/jsref/jsref_split.asp
- https://www.w3schools.com/jsref/jsref_join.asp
- https://www.w3schools.com/jsref/jsref_replace.asp