Assignment Week 3 - A

The Kidnapping Mystery

You are Agent Dawn, a world-renowned spy known for your unparalleled espionage skills. In addition to your remarkable talent in the world of espionage, you possess a vast array of real-life skills and talents that make you the best in the field. Your latest mission takes you to the politically charged nation of Ostania, where you are tasked with gathering crucial information about a prominent political figure named Monddes.

To accomplish this mission, you take on a daring and unconventional approach. You create a pretend family and enroll your pretend child, Anya, in a prestigious school in Ostania. Your mission's success hinges on maintaining this undercover identity.

One fateful day, disaster strikes. Anya, your pretend child, goes missing. The success of your mission now depends on finding her. With your exceptional espionage skills and determination, you embark on a mission to locate Anya and uncover the truth behind her disappearance.

Amid your investigation, you stumble upon a cryptic message filled with nonsense symbols and numbers, presumably left behind by the kidnapper. The message is a perplexing puzzle that must be solved to find Anya:

M@ 5t &td1!gqt und@x tq@ o$* tx@@ #* tq@ %3d l4gqtqous@**

The fate of your mission and the safety of Anya hang in the balance as you delve deeper into the enigmatic message, determined to unlock the secrets it holds.

Time is of the essence, and you are acutely aware that every moment counts as you race against the clock to save Anya and unveil the truth behind her kidnapping.

Scoring criteria:

Code Result : 80%

Code Effectiveness / Cleaness : 20%

Part 1

You found out that there are decryption keys to replace the encrypted with actual character!

- Replace "@" with "e"
- Replace "4" with "i"
- Replace "x" with "r"
- Replace "z" with "k"
- Replace "q" with "h"
- Replace "5" with "a"

Instructions

1. Store the message into a variable
2. Store the decryption keys into an array like this

```
const decryption_keys = [
      { from: "@", to: "e" },
      { from: "4", to: "i" },
      { from: "x", to: "r" },
      { from: "z", to: "k" },
      { from: "q", to: "h" },
      { from: "5", to: "a" },
];
```

3. Use looping to replace the characters based on the above keys
4. Display the encrypted text

Hints

- You may need to use a loop inside another loop 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 data 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)

References:

https://www.w3schools.com/jsref/jsref_split.asp

https://www.w3schools.com/jsref/jsref_join.asp

Instructions (Part 2)

Congratulations, you managed to solve the first puzzle!

However, even after these substitutions, the message remains cryptic and incomprehensible. Realizing the urgency of the situation, you reach out to your friend within your intelligence agency for assistance.

Your friend, Franky, skilled in tracking digital communications, traces a series of cryptic messages exchanged between the kidnapper and an unknown accomplice. These messages contain additional hints and fragments of the decryption key. With your colleague's assistance, you receive the following clues:

- Replace "**" with "et"
- Replace "&t" with "mi"
- Replace "$** with "ak"
- Replace "#*" with "by"
- Replace "%3" with "ol"
- Replace "1!" with "ni"

With this enhanced decryption key and the additional clues, you are now equipped to finish decrypting the message.

Instruction:

1. Within the same file, continue to decrypt the code using the provided clues
2. Store the new decryption keys inside an array like in part 1
3. Use looping again to decode the matching characters
4. Now after replacing, display the completed/final message

Reference:

https://www.w3schools.com/jsref/jsref_replace.asp