

1. Reverse String with Delay

// Function to reverse a string after a delay of 2 seconds

```
function reverseStringAfterDelay(input) {  
  setTimeout(() => {  
    const reversed = input.split("").reverse().join("");  
    console.log('Reversed String:', reversed);  
  }, 2000); // 2 seconds delay  
}
```

// Example usage

```
const input = "Hello, World!";  
reverseStringAfterDelay(input);
```

2. Random Number Generator with Delay and Progress Indication

// Function to generate a random number after a delay with progress indication

```
function randomNumberWithDelay(delay) {  
  let remainingTime = delay / 1000; // Convert milliseconds to seconds  
  
  const interval = setInterval(() => {  
    if (remainingTime > 0) {  
      console.log(`Time remaining: ${remainingTime} seconds`);  
      remainingTime--;  
    } else {  
      clearInterval(interval);  
      const randomNumber = Math.floor(Math.random() * 100) + 1;  
      console.log('Generated Random Number:', randomNumber);  
    }  
  }, 1000); // 1 second interval  
}
```

// Example usage

```
const delay = 3000; // 3 seconds delay  
randomNumberWithDelay(delay);
```

3. Store's Inventory Conversion to INR

// Function to convert USD prices to INR using map

```
function convertPricesToINR(inventory) {  
  const exchangeRate = 80; // 1 USD to 80 INR  
  const convertedInventory = Object.fromEntries(  
    Object.entries(inventory).map(([item, priceUSD]) => [item, priceUSD * exchangeRate])  
  );  
}
```

```
);  
    return convertedInventory;  
}
```

```
// Example usage  
const storeInventory = {  
  'Apple': 1.5,  
  'Banana': 1.2,  
  'Orange': 2.0  
};
```

```
const inventoryInINR = convertPricesToINR(storeInventory);  
console.log('Inventory in INR:', inventoryInINR);
```

4. Filtering and Capitalizing Books Published After 2010

```
// Function to filter books published after 2010 and capitalize author names  
function filterAndCapitalizeBooks(books) {  
  return books  
    .filter(book => book.year > 2010)  
    .map(book => ({  
      title: book.title,  
      author: book.author.toUpperCase(),  
      year: book.year  
    }));  
}
```

```
// Example usage  
const books = [  
  { title: 'Book A', author: 'Author A', year: 2012 },  
  { title: 'Book B', author: 'Author B', year: 2008 },  
  { title: 'Book C', author: 'Author C', year: 2015 }  
];
```

```
const filteredBooks = filterAndCapitalizeBooks(books);  
console.log('Filtered and Capitalized Books:', filteredBooks);
```

5. URL Validation

```
// Function to validate URLs using regex  
function validateURL(url) {  
  const urlRegex = /^(http:\V|https:\V)[a-zA-Z0-9._-]+\.[a-zA-Z]{2,}$/;
```

```
if (urlRegex.test(url)) {  
    console.log('Valid URL');  
} else {  
    console.log('Invalid URL');  
}  
}
```

// Example usage

```
const url1 = 'https://example.com';
```

```
const url2 = 'ftp://example.com';
```

```
validateURL(url1); // Valid URL
```

```
validateURL(url2); // Invalid URL
```

6. LinkedIn Profile URL Validator

// Function to validate LinkedIn profile URLs using regex

```
function validateLinkedInURL(url) {  
    const linkedinRegex = /^https:\/\/www\.linkedin\.com\/in\/[a-zA-Z0-9_-]{5,30}[a-zA-Z0-9]$/  
    if (linkedinRegex.test(url)) {  
        console.log('Valid LinkedIn Profile URL');  
    } else {  
        console.log('Invalid LinkedIn Profile URL');  
    }  
}
```

// Example usage

```
const profileURL1 = 'https://www.linkedin.com/in/john-doe_123';
```

```
const profileURL2 = 'https://www.linkedin.com/in/johndoe@123';
```

```
validateLinkedInURL(profileURL1); // Valid LinkedIn Profile URL
```

```
validateLinkedInURL(profileURL2); // Invalid LinkedIn Profile URL
```