

Assignment

Q.1. Illustrate the need of Underscore Package.

Underscore.js is a lightweight JavaScript library that provides a powerful set of utility functions to simplify and enhance the way developers work with arrays, objects, and functions. It is especially useful in web application development when dealing with data manipulation, iteration, filtering, and transformations.

Underscore.js is a lightweight JavaScript library that provides a powerful set of utility functions to simplify and enhance the way developers work with arrays, objects, and functions. It is especially useful in web application development when dealing with data manipulation, iteration, filtering, and transformations. Using Underscore in a web app helps developers write more elegant, maintainable, and functional code, especially when working with complex data structures or building dynamic user interfaces.

Q.2. Illustrate the small application which will make use of Underscore package.

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Underscore Example</title>

  <script src="https://cdnjs.cloudflare.com/ajax/libs/underscore.js/1.13.1/underscore-
min.js"></script>

</head>

<body>

  <h1>Underscore.js Example</h1>

  <div>

    <h2>Original Array</h2>

    <pre id="original-array"></pre>
```

<h2>Squared Values (Using `_`.map)</h2>

<pre id="squared-values"></pre>

<h2>Even Numbers (Using `_`.filter)</h2>

<pre id="even-numbers"></pre>

<h2>Sum of All Values (Using `_`.reduce)</h2>

<pre id="sum-values"></pre>

</div>

<script>

```
const numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9];
```

```
const squared = _.map(numbers, function(num) {  
  return num * num;  
});
```

```
const evenNumbers = _.filter(numbers, function(num) {  
  return num % 2 === 0;  
});
```

```
const sum = _.reduce(numbers, function(total, num) {  
  return total + num;  
}, 0);
```

```
document.getElementById("original-array").textContent = JSON.stringify(numbers, null,  
2);
```

```
document.getElementById("squared-values").textContent = JSON.stringify(squared, null,  
2);
```

```
document.getElementById("even-numbers").textContent = JSON.stringify(evenNumbers,  
null, 2);
```

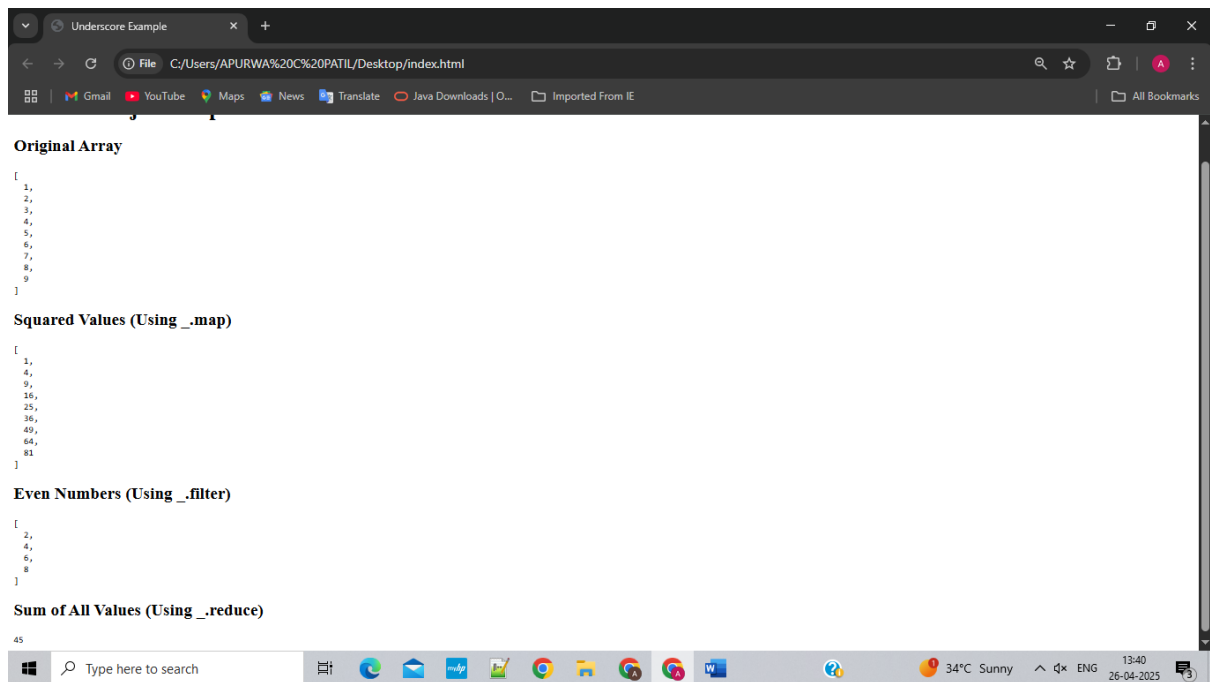
```
document.getElementById("sum-values").textContent = sum;
```

</script>

</body>

</html>

OUTPUT:



The screenshot shows a web browser window titled "Underscore Example" with the address bar displaying "C:/Users/APURWA%20C%20PATIL/Desktop/index.html". The browser's address bar includes search, star, and share icons, and a bookmarks bar with links to Gmail, YouTube, Maps, News, Translate, Java Downloads, and Imported From IE. The main content area displays the output of several Underscore.js functions:

```
Original Array
[
  1,
  2,
  3,
  4,
  5,
  6,
  7,
  8,
  9
]

Squared Values (Using _.map)
[
  1,
  4,
  9,
  16,
  25,
  36,
  49,
  64,
  81
]

Even Numbers (Using _.filter)
[
  2,
  4,
  6,
  8
]

Sum of All Values (Using _.reduce)
45
```

The browser's taskbar at the bottom shows the Windows Start button, a search bar, and several application icons. The system tray on the right indicates a temperature of 34°C, sunny weather, and the date and time as 13:40 on 26-04-2025.

Q.3. Illustrate the need for code of ethics.

The need for a code of ethics is essential in any profession to ensure responsible behavior, maintain public trust, and promote integrity among individuals and organizations. A code of ethics serves as a formal guideline that outlines acceptable conduct, values, and principles which professionals are expected to follow. It helps distinguish right from wrong, offering a moral compass when facing difficult or unclear situations.

In the context of technology and web development, for example, a code of ethics ensures that developers handle user data responsibly, respect privacy, avoid plagiarism, and produce secure and honest work. It also promotes fairness, discouraging discrimination, and encourages collaboration and transparency within teams. Without such a code, actions could be driven purely by profit or personal gain, potentially leading to unethical decisions that harm users, clients, or society.

Moreover, having a clearly defined code of ethics builds trust between professionals and the public. It enhances the reputation of an industry or organization and protects stakeholders from misconduct. In summary, a code of ethics is necessary to uphold professionalism, ensure accountability, and create a standard of excellence and fairness in any field.