**lab-1.2\script.js**

```javascript
1   // script.js
2
3   // Chart data and configuration
4   const chartConfig = [
5       {
6           id: 'comparison',
7           title: 'Pet Ownership Comparison (2019 vs 2021)',
8           src: 'chart_comparison.svg',
9           alt: 'Bar chart comparing pet ownership percentages between 2019 and 2021 for
    different animal types',
10          description: 'Fig 1. Pet ownership comparison between 2019 and 2021. This chart shows
    the percentage of households owning each type of pet in Australia across both years.'
11      },
12      {
13          id: 'distribution',
14          title: 'Pet Ownership Distribution (2021)',
15          src: 'chart_distribution.svg',
16          alt: 'Pie chart showing the distribution of pet types owned in Australian households
    in 2021',
17          description: 'Fig 2. Distribution of pet types in Australian households (2021). This
    pie chart displays the relative popularity of different pet types.'
18      },
19      {
20          id: 'change',
21          title: 'Change in Pet Ownership (2019-2021)',
22          src: 'chart_change.svg',
23          alt: 'Bar chart showing the percentage change in pet ownership between 2019 and 2021',
24          description: 'Fig 3. Percentage change in pet ownership from 2019 to 2021. This chart
    highlights which pet types saw increases or decreases in ownership during the pandemic
    period.'
25      }
26  ];
27
28  // Initialize the current chart
29  let currentChartIndex = 0;
30
31  // Function to update the visualization
32  function updateVisualization(index) {
33      // Get the chart configuration
34      const chart = chartConfig[index];
35
36      // Update the image source and alt text
37      const chartImage = document.getElementById('chartImage');
38      chartImage.src = chart.src;
39      chartImage.alt = chart.alt;
40
41      // Update the figcaption
42      const figCaption = document.getElementById('chartCaption');
43      figCaption.innerHTML = chart.description;
```

```
44
45        // Update the active button class
46        const buttons = document.querySelectorAll('.chart-button');
47        buttons.forEach((button, i) => {
48            if (i === index) {
49                button.classList.add('active');
50            } else {
51                button.classList.remove('active');
52            }
53        });
54
55        // Update current index
56        currentChartIndex = index;
57    }
58
59    // Function to initialize the visualization controls
60    function initializeVisualization() {
61        // Create the button container
62        const buttonContainer = document.createElement('div');
63        buttonContainer.className = 'button-container';
64
65        // Create buttons for each chart
66        chartConfig.forEach((chart, index) => {
67            const button = document.createElement('button');
68            button.textContent = chart.title;
69            button.className = 'chart-button';
70            if (index === 0) button.classList.add('active');
71
72            // Add click event listener
73            button.addEventListener('click', () => {
74                updateVisualization(index);
75            });
76
77            buttonContainer.appendChild(button);
78        });
79
80        // Find where to insert the button container (before the figure)
81        const figure = document.querySelector('figure');
82        figure.parentNode.insertBefore(buttonContainer, figure);
83
84        // Update the image and figcaption IDs
85        const chartImage = document.querySelector('figure img');
86        chartImage.id = 'chartImage';
87
88        const figCaption = document.querySelector('figcaption');
89        figCaption.id = 'chartCaption';
90
91        // Initial visualization update
92        updateVisualization(0);
93    }
```

```
94
95   // Run initialization when the DOM is fully loaded
96   document.addEventListener('DOMContentLoaded', initializeVisualization);
```