Indian Institute of Information Technology Surat

Lab Report on
Web Engineering (CS 603) Practical

Submitted by

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Lab No: 7

Aim: JQuery

Description: Write a HTML/CSS/JS Script with JQuery for the following:
1. Array Manipulations:
   a) Modify array entries with jQuery.map.
   b) Merge two arrays using JQuery.merge.
   c) Find duplicate array entries with JQuery.unique.
2. Effects on Webpage Content:
   a) Toggle element visibility with duration.
   b) Slide and fade elements in and out of view.
   c) Show images sequentially on hover.
3. Effects on HTML Form Elements:
   a) Toggle select/deselect all checkboxes with a single link.
   b) Auto tabbing based on character count for serial number input.
4. Contextual Menu:
   a) Create a menu with hover-over info and highlight functionality.
5. Word-Balloon Effect:
   a) Apply the effect on clicking "Bold" or "Italic" buttons.
6. Horizontal Image Slider:
   a) Display an image gallery with scrollable images beyond initial view.

Source Code:

Task 1:

```
<script>
    const originalArray = [1, 2, 3, 4, 5, 5];
    const squaredArray = $.map(originalArray, function (value) {
        return value * value;
    });
    const secondArray = [6, 7, 8, 9];
    let dupArray = $.merge([], originalArray);
    const mergedArray = $.merge(dupArray, secondArray);
    let dupArray2 = $.merge([], mergedArray);
    const uniqueArray = $.unique(dupArray2);
    document.write("<p>Original Array: " + originalArray.join(", ") + "</p>");
    document.write("<p>Second Array: " + secondArray.join(", ") + "</p>");
    document.write("<p>Squared Array: " + squaredArray.join(", ") + "</p>");
    document.write("<p>Merged Array: " + mergedArray.join(", ") + "</p>");
    document.write("<p>Unique Array: " + uniqueArray.join(", ") + "</p>");
</script>
```

Task 2:

```
<script>
    $(document).ready(function() {
        $("#toggleButton").click(function() {
            $("#myParagraph").toggle(1000);
        });
        $("#slideDiv").click(function() {
            $(this).slideToggle(1000);
        });
        $("#fadeDiv").hover(function() {
```

```
            $(this).fadeOut(1000).fadeIn(1000);
        });
        var currentIndex = 0;
        var totalImages = $(".image").length;
        function showNextImage() {
            $(".image").eq(currentIndex).fadeOut(500);
            currentIndex = (currentIndex + 1) % totalImages;
            $(".image").eq(currentIndex).fadeIn(500);
        }
        showNextImage();
        $("#imageContainer").on("mouseenter",function(){
            showNextImage();
        });
    });
</script>
```

Task 3:

```
<script>
    $(document).ready(function() {
        $("#select-all-teammembers").click(function() {
            var checkBoxes = $("input[name='recipients[]']");
            checkBoxes.prop("checked", !checkBoxes.prop("checked"));
        });
        $("input[type='text']").keyup(function() {
            if (this.value.length === this.maxLength) {
                $(this).next("input[type='text']").focus();
            }
        });
    });
</script>
```

Task 4:

```
<script>
  $(document).ready(function(){
    $('.dropdown-content a').hover(function(){
      $('.dropdown-content a').removeClass('highlight');
      $(this).addClass('highlight');
    });
    $('.dropdown-content a').mouseenter(function(){
      var menuText = $(this).parent().parent().find('span').text() + " " + $(this).text();
      $('#info').text('Information related to ' + menuText);
    });
    $('.dropdown-content').mouseleave(function(){
      $('#info').text('Hover to get Information Displayed');
    });
  });
</script>
```

Task 5:

```
<script>
    $(document).ready(function() {
        $('#bold-button').click(function() {
            $('#balloon-text').text('This is the Bold button!');
            $(this).css({
                'background-color': '#fff',
```

```
                    'color': '#f00',
                    'border': '#000'
                });
                $('#italic-button').css({
                    'background-color': '#f00',
                    'color': '#000',
                    'border': '#000'
                });
                showBalloon();
            });
            $('#italic-button').click(function() {
                $('#balloon-text').text('This is the Italic button!');
                $('#bold-button').css({
                    'background-color': '#f00',
                    'color': '#000',
                    'border': '#000'
                });
                $(this).css({
                    'background-color': '#fff',
                    'color': '#f00',
                    'border': '#000'
                });
                showBalloon();
            });
            function showBalloon() {
                $('#balloon-text').css('display', 'block');
                setTimeout(function() {
                    $('#balloon-text').css('display', 'none');
                }, 2000);
            }
        });
    </script>
```

Task 6:

```
<script>
    $(document).ready(function() {
 var containerWidth = $(".slider-container").width();
 var totalWidth = 0;
 $(".slide").each(function() {
   totalWidth += $(this).outerWidth(true);
 });
 $(".slider").width(totalWidth);
 $(".slider-container").on("scroll", function() {
   var scrollPos = $(this).scrollLeft();
   var maxScroll = totalWidth - containerWidth;

   if (scrollPos >= maxScroll) {
   }
 });
});
</script>
```

Output:

Task 1:

Array Operations
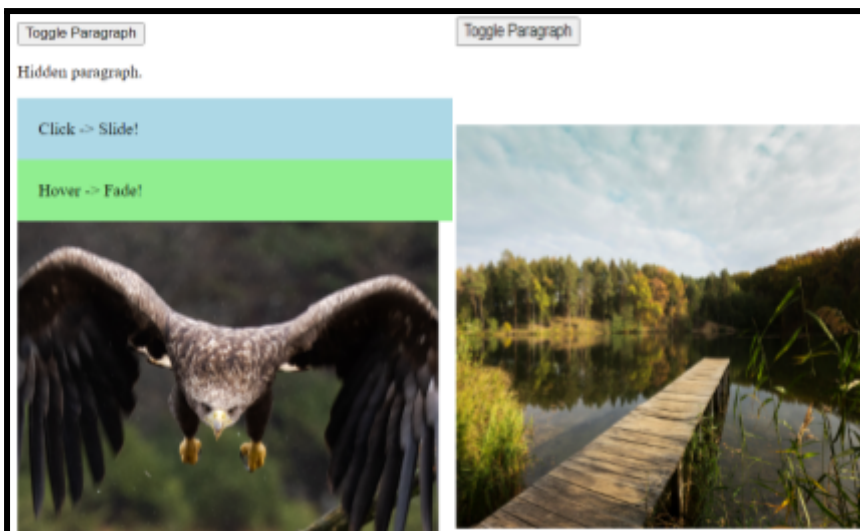
Original Array: 1, 2, 3, 4, 5, 5

Second Array: 6, 7, 8, 9

Squared Array: 1, 4, 9, 16, 25, 25

Merged Array: 1, 2, 3, 4, 5, 5, 6, 7, 8, 9

Unique Array: 1, 2, 3, 4, 5, 6, 7, 8, 9

Task 2:

| Toggle Paragraph | Toggle Paragraph |

Hidden paragraph.

Click -> Slide!

Hover -> Fade!

Task 3:

Select/Deselect All Checkboxes

- ☑ Checkbox 1
- ☑ Checkbox 2
- ☑ Checkbox 3
- ☑ Checkbox 4

Toggle All

Auto Tabbing Based on Character Count

| 5464 | 5646 | 4646 | 4646 |

Task 4:

| Menu 1 | Menu 2 | Menu 3 | Information related to Menu 1 Submenu 2 |

Submenu 1

Submenu 2

Submenu 3

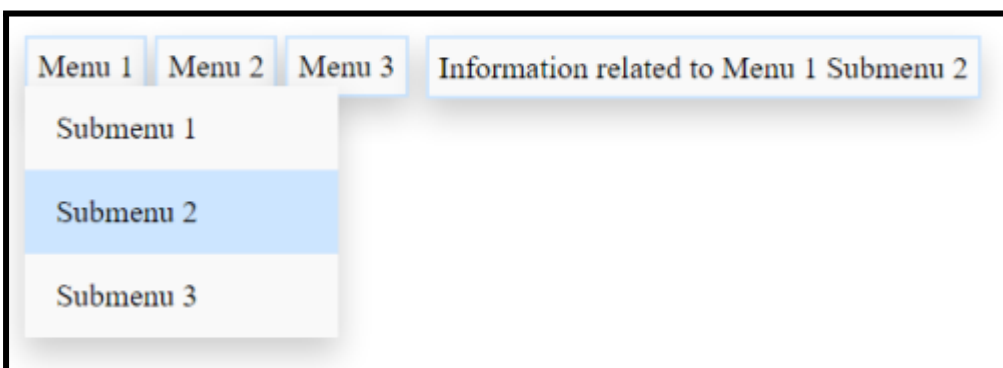**Task 5:**

Task 6:

Conclusion:

- Utilized jQuery operations for array manipulation efficiently.
- Demonstrated various content effects dynamically using jQuery functions.
- Implemented interactive form enhancements using jQuery operations.
- Developed a dropdown contextual menu with hover functionality using jQuery.
- Implemented a word-balloon effect on button click events.
- Implemented a horizontal image slider with scroll functionality.