

# Lab 2 — JQuery Additional Questions

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## Additional Question 1

Design a webpage. The page contains:

- a. Dropdown list with HP, Nokia, Samsung, Motorola, Apple as items.
- b. Checkbox with Mobile and Laptop as items. Textbox where you enter quantity.
- c. There is a button with text as 'Produce Bill'.

On Clicking Produce Bill button, alert should be displayed with total amount.

**Code:**

```
<!DOCTYPE html>
<html>
<head>
    <title>Product Bill Generator</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            margin: 20px;
            background-color: #f4f4f4;
        }
        .container {
            background-color: white;
            padding: 30px;
            border-radius: 8px;
            box-shadow: 0 2px 10px rgba(0, 0, 0, 0.1);
            max-width: 500px;
            margin: 0 auto;
        }
        h1 {
            color: #333;
            text-align: center;
        }
        label {
            display: block;
            margin-top: 15px;
            color: #555;
            font-weight: bold;
        }
    </style>
</head>
<body>
    <div class="container">
        <h1>Product Bill Generator</h1>
        <label>Select Device</label>
        <select>
            <option>HP</option>
            <option>Nokia</option>
            <option>Samsung</option>
            <option>Motorola</option>
            <option>Apple</option>
        </select>
        <br>
        <label>Enter Quantity</label>
        <input type="text" value="1" />
        <br>
        <input type="checkbox" checked="" /> Mobile
        <input type="checkbox" checked="" /> Laptop
        <br>
        <button type="button" onclick="produceBill()>Produce Bill</button>
    </div>
</body>
</html>
```

```
select, input[type="text"], input[type="number"] {  
    width: 100%;  
    padding: 8px;  
    margin-top: 5px;  
    border: 1px solid #ddd;  
    border-radius: 4px;  
    box-sizing: border-box;  
}  
.checkbox-group {  
    margin-top: 15px;  
}  
.checkbox-group label {  
    display: inline-block;  
    margin-right: 20px;  
    font-weight: normal;  
}  
input[type="checkbox"] {  
    margin-right: 5px;  
}  
button {  
    width: 100%;  
    padding: 12px;  
    margin-top: 20px;  
    background-color: #4CAF50;  
    color: white;  
    border: none;  
    border-radius: 4px;  
    font-size: 16px;  
    font-weight: bold;  
    cursor: pointer;  
    transition: background-color 0.3s;  
}  
button:hover {  
    background-color: #45a049;  
}  
</style>  
</head>  
<body>  
    <div class="container">  
        <h1>Product Bill Generator</h1>  
  
        <form>  
            <label for="brand">Select Brand:</label>  
            <select id="brand" name="brand">  
                <option value="">-- Select a Brand --</option>  
                <option value="HP">HP</option>  
                <option value="Nokia">Nokia</option>  
                <option value="Samsung">Samsung</option>  
                <option value="Motorola">Motorola</option>  
                <option value="Apple">Apple</option>  
            </select>  
  
            <div class="checkbox-group">  
                <label>Device Type:</label>
```

```
<label>
    <input type="checkbox" name="deviceType" value="Mobile">
Mobile
</label>
<label>
    <input type="checkbox" name="deviceType" value="Laptop">
Laptop
</label>
</div>

<label for="quantity">Quantity:</label>
<input type="number" id="quantity" name="quantity" min="1"
placeholder="Enter quantity">

    <button type="button" onclick="produceBill()">Produce Bill</button>
</form>
</div>

<script>
const brandPrices = {
    'HP': 45000,
    'Nokia': 25000,
    'Samsung': 55000,
    'Motorola': 35000,
    'Apple': 95000
};

function produceBill() {
    const brand = document.getElementById('brand').value;
    const deviceTypes = [];
    const checkboxes =
document.querySelectorAll('input[name="deviceType"]:checked');
    checkboxes.forEach(checkbox => {
        deviceTypes.push(checkbox.value);
    });
    const quantity = document.getElementById('quantity').value;

    if (!brand) {
        alert('Please select a brand');
        return;
    }
    if (deviceTypes.length === 0) {
        alert('Please select at least one device type');
        return;
    }
    if (!quantity || quantity <= 0) {
        alert('Please enter a valid quantity');
        return;
    }

    const unitPrice = brandPrices[brand];
    const totalAmount = unitPrice * quantity;

    const bill = `
```

```
==== BILL ===
Brand: ${brand}
Device Type(s): ${deviceTypes.join(', ')}
Unit Price: ₹${unitPrice}
Quantity: ${quantity}
-----
Total Amount: ₹${totalAmount}
=====
`;

    alert(bill);
}
</script>
</body>
</html>
```

**Output:**

# Product Bill Generator

Select Brand:

-- Select a Brand --

Device Type:  Mobile  Laptop

Quantity:

Enter quantity

**Produce Bill**

# Product Bill Generator

Select Brand:

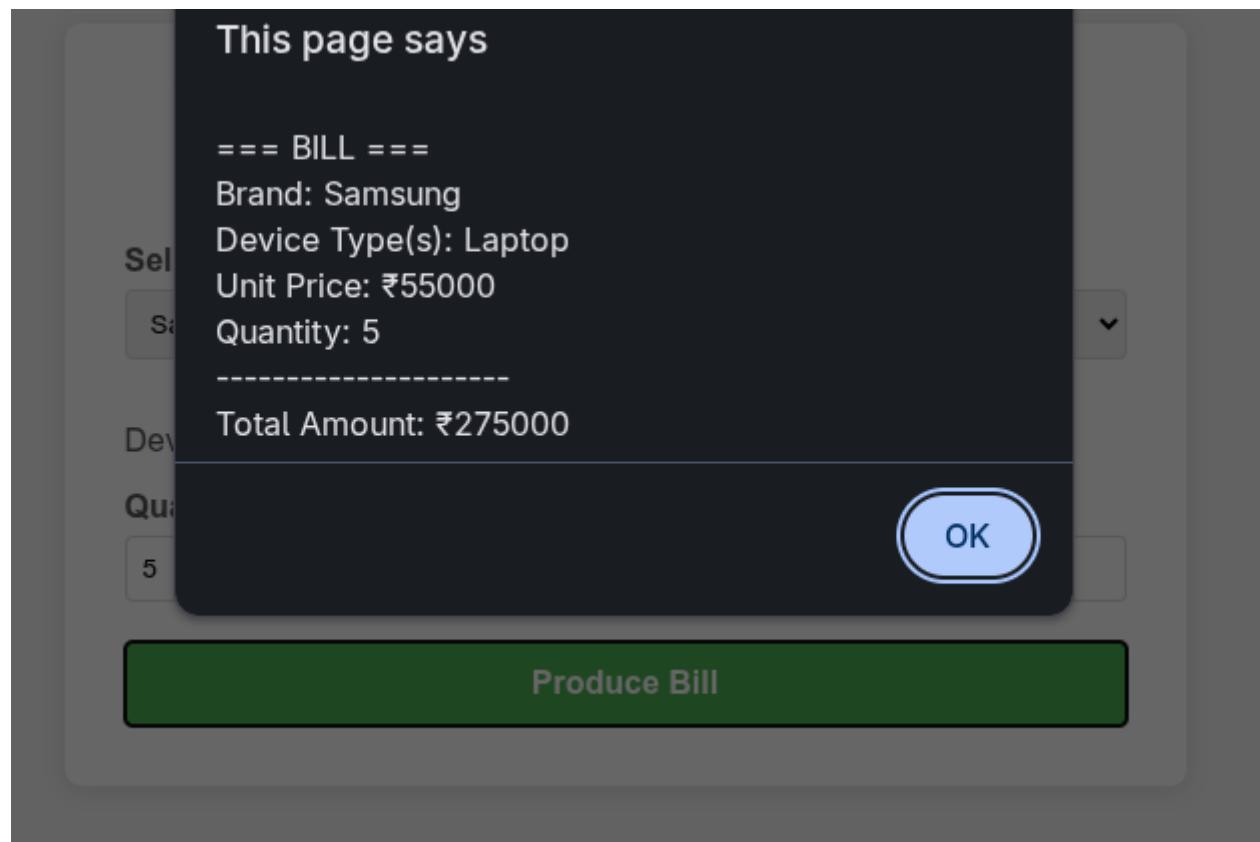
Samsung

Device Type:  Mobile  Laptop

Quantity:

5

**Produce Bill**



## Additional Question 2

Implement the bouncing ball using animate() function.

**Code:**

```
<!DOCTYPE html>
<html>
<head>
    <title>Bouncing Ball Animation</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            display: flex;
            justify-content: center;
            align-items: center;
            height: 100vh;
            margin: 0;
            background: linear-gradient(135deg, #667eea 0%, #764ba2 100%);
        }
        .container {
            text-align: center;
        }
        h1 {
            color: white;
            margin-bottom: 20px;
        }
        canvas {
```

```
        border: 3px solid white;
        background-color: #1a1a2e;
        border-radius: 10px;
        box-shadow: 0 10px 30px rgba(0, 0, 0, 0.3);
    }
    .controls {
        margin-top: 20px;
    }
    button {
        padding: 10px 20px;
        margin: 5px;
        font-size: 14px;
        background-color: white;
        color: #667eea;
        border: none;
        border-radius: 5px;
        cursor: pointer;
        font-weight: bold;
        transition: transform 0.2s;
    }
    button:hover {
        transform: scale(1.05);
        background-color: #f0f0f0;
    }
</style>
</head>
<body>
    <div class="container">
        <h1>Bouncing Ball Animation</h1>
        <canvas id="canvas" width="800" height="500"></canvas>
        <div class="controls">
            <button onclick="toggleAnimation()">Play/Pause</button>
            <button onclick="resetBall()">Reset</button>
        </div>
    </div>

    <script>
        const canvas = document.getElementById('canvas');
        const ctx = canvas.getContext('2d');

        const ball = {
            x: canvas.width / 2,
            y: canvas.height / 2,
            radius: 15,
            vx: 5,
            vy: 5,
            gravity: 0.3,
            friction: 0.99,
            bounce: 0.8
        };

        let isAnimating = true;

        function drawBall() {
            /
```

```
ctx.beginPath();
ctx.arc(ball.x, ball.y, ball.radius, 0, Math.PI * 2);
ctx.fillStyle = '#FF6B6B';
ctx.fill();
ctx.strokeStyle = '#FF0000';
ctx.lineWidth = 2;
ctx.stroke();

}

function updateBall() {
    ball.vy += ball.gravity;
    ball.vx *= ball.friction;
    ball.vy *= ball.friction;
    ball.x += ball.vx;
    ball.y += ball.vy;

    if (ball.x - ball.radius < 0) {
        ball.x = ball.radius;
        ball.vx = -ball.vx * ball.bounce;
    } else if (ball.x + ball.radius > canvas.width) {
        ball.x = canvas.width - ball.radius;
        ball.vx = -ball.vx * ball.bounce;
    }

    if (ball.y - ball.radius < 0) {
        ball.y = ball.radius;
        ball.vy = -ball.vy * ball.bounce;
    } else if (ball.y + ball.radius > canvas.height) {
        ball.y = canvas.height - ball.radius;
        ball.vy = -ball.vy * ball.bounce;
    }
}

function animate() {
    ctx.fillStyle = '#1a1a2e';
    ctx.fillRect(0, 0, canvas.width, canvas.height);

    if (isAnimating) {
        updateBall();
    }

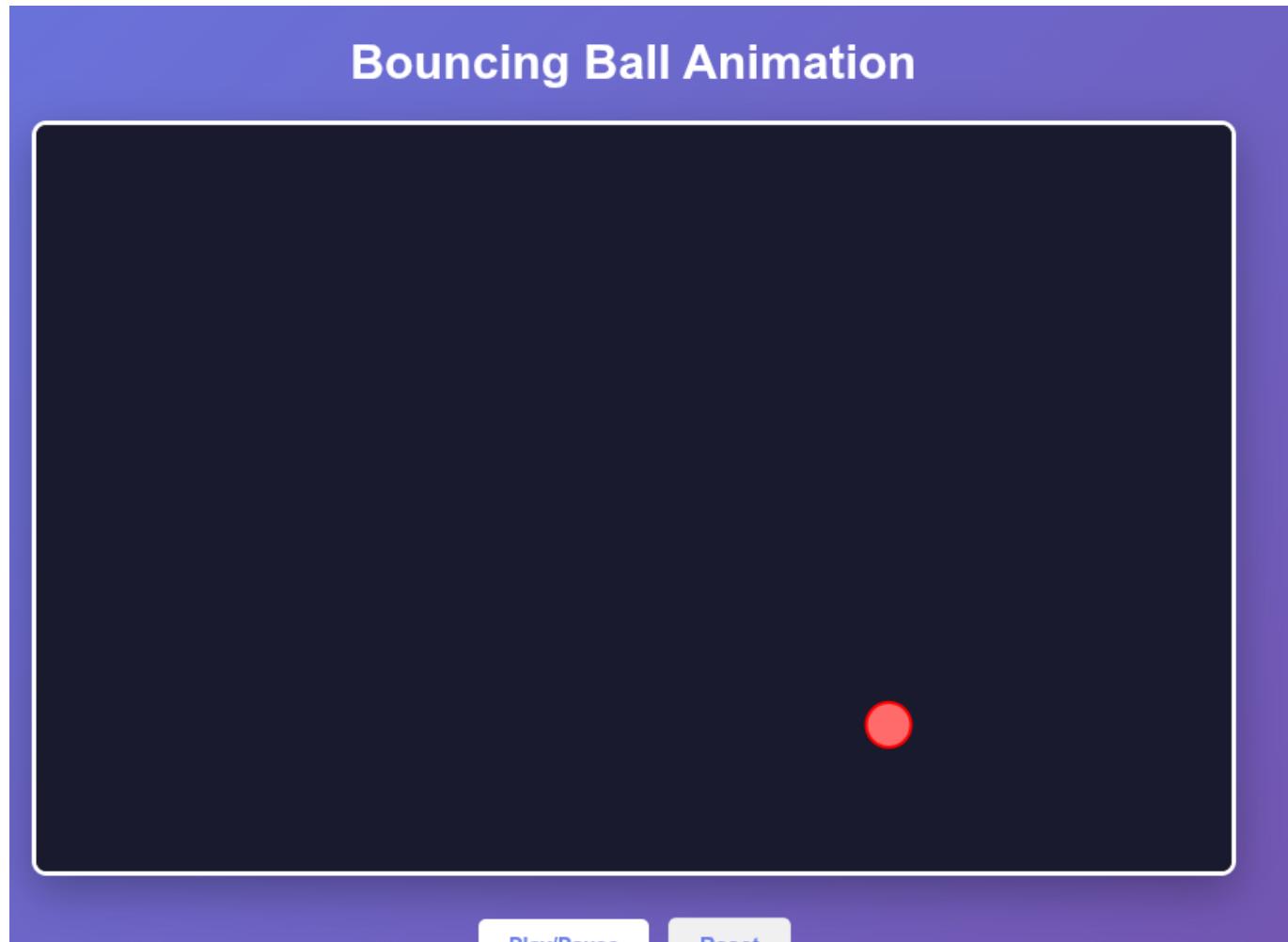
    drawBall();
    requestAnimationFrame(animate);
}

function toggleAnimation() {
    isAnimating = !isAnimating;
}

function resetBall() {
    ball.x = canvas.width / 2;
    ball.y = canvas.height / 2;
    ball.vx = 5;
    ball.vy = 5;
}
```

```
        }
    
```

```
        animate();
    </script>
</body>
</html>
```

**Output:**

---

### Additional Question 3

Write a web page which displays image and show the sliding text on the image.

**Code:**

```
<!DOCTYPE html>
<html>
<head>
    <title>Image with Sliding Text</title>
    <style>
        * {
            margin: 0;
            padding: 0;
```

```
        box-sizing: border-box;
    }

body {
    font-family: Arial, sans-serif;
    display: flex;
    justify-content: center;
    align-items: center;
    min-height: 100vh;
    background-color: #f0f0f0;
    padding: 20px;
}

.container {
    position: relative;
    width: 100%;
    max-width: 800px;
    overflow: hidden;
    border-radius: 10px;
    box-shadow: 0 10px 30px rgba(0, 0, 0, 0.3);
}

.image-wrapper {
    position: relative;
    width: 100%;
    overflow: hidden;
    background: linear-gradient(135deg, #667eea 0%, #764ba2 100%);
}

.image-wrapper img {
    width: 100%;
    height: auto;
    display: block;
}

.text-overlay {
    position: absolute;
    top: 0;
    left: 0;
    width: 100%;
    height: 100%;
    display: flex;
    align-items: center;
    justify-content: center;
}

.sliding-text {
    position: absolute;
    white-space: nowrap;
    font-size: 32px;
    font-weight: bold;
    color: white;
    text-shadow: 2px 2px 4px rgba(0, 0, 0, 0.7);
    animation: slide 8s infinite linear;
}
```

```
}

@keyframes slide {
    0% {
        left: -100%;
        opacity: 0;
    }
    10% {
        opacity: 1;
    }
    90% {
        opacity: 1;
    }
    100% {
        left: 100%;
        opacity: 0;
    }
}

.sliding-text:nth-child(1) {
    animation-delay: 0s;
    top: 20%;
    font-size: 28px;
    color: #FFD700;
}

.sliding-text:nth-child(2) {
    animation-delay: 2.5s;
    top: 50%;
    font-size: 32px;
    color: #00FF88;
}

.sliding-text:nth-child(3) {
    animation-delay: 5s;
    top: 80%;
    font-size: 28px;
    color: #FF6B9D;
}

.controls {
    text-align: center;
    margin-top: 30px;
}

button {
    padding: 12px 25px;
    margin: 5px;
    font-size: 14px;
    background-color: #667eea;
    color: white;
    border: none;
    border-radius: 5px;
    cursor: pointer;
```

```
        font-weight: bold;
        transition: transform 0.2s, background-color 0.2s;
    }

    button:hover {
        transform: scale(1.05);
        background-color: #764ba2;
    }

h1 {
    text-align: center;
    color: #333;
    margin-bottom: 20px;
}

</style>
</head>
<body>
    <div style="width: 100%; max-width: 800px;">
        <h1>Image with Sliding Text</h1>

        <div class="container">
            <div class="image-wrapper">
                

                <div class="text-overlay">
                    <div class="sliding-text">Welcome to Web Page</div>
                    <div class="sliding-text">Sliding Text Animation</div>
                    <div class="sliding-text">Enjoy the Animation!</div>
                </div>
            </div>
        </div>

        <div class="controls">
            <button onclick="pauseAnimation()">Pause Animation</button>
            <button onclick="resumeAnimation()">Resume Animation</button>
        </div>
    </div>

<script>
    function pauseAnimation() {
        const textElements = document.querySelectorAll('.sliding-text');
        textElements.forEach(element => {
            element.style.animationPlayState = 'paused';
        });
    }

    function resumeAnimation() {
        const textElements = document.querySelectorAll('.sliding-text');
        textElements.forEach(element => {
            element.style.animationPlayState = 'running';
        });
    }
</script>
```

```
</body>  
</html>
```

**Output:**

## Image with Sliding Text



[Pause Animation](#)

[Resume Animation](#)