Answer the following questions

```
1. Write a jQuery program where clicking a button toggles the visibility of a
<div>.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
<button id="toggleBtn">Toggle</putton>
<div id="content">This is a div.</div>
<script>
    $("#toggleBtn").click(function() {
       $("#content").toggle();
   });
</script>
</body>
</html>
2. Create a form with a text field and a button. When the user enters text and
clicks the button, display the entered text inside a  tag using jQuery.
<html>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
<input type="text" id="inputText">
<button id="showText">Show</button>
<script>
   $("#showText").click(function() {
       var text = $("#inputText").val();
       $("#output").text(text);
    });
</script>
</body>
</html>
3. Write a jQuery script that validates an input field. If the input is empty,
display an error message in red below the field.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
<input type="text" id="inputField">
<button id="validateBtn">Validate
<script>
   $("#validateBtn").click(function() {
       if ($("#inputField").val() === "") {
           $("#error").text("This field is required.");
       } else {
           $("#error").text("");
       }
   });
</script>
</body>
</html>
```

4. Implement a jQuery program where clicking a button appends a new paragraph inside a <div> dynamically.

```
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
<button id="addPara">Add Paragraph</putton>
<div id="paraContainer"></div>
<script>
   $("#addPara").click(function() {
       $("#paraContainer").append("New paragraph added.");
   });
</script>
</body>
</html>
5. Create a jQuery program that allows users to add and remove list items
dynamically using buttons.
<html>
<head>
<title>Add/Remove List Items</title>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script> </head>
<body>
ul id="myList">
Item 1
Item 2
<button id="addItem">Add Item
<button id="removeItem">Remove Item
<script>
$(document).ready(function(){
$("#addItem").click(function(){
$("#myList").append("New Item");
});
$("#removeItem").click(function(){
$("#myList li:last-child").remove(); // Remove the last list item
});
});
</script>
</body>
</html>
6. Write a jQuery function that changes the color of all even rows in a table
when a button is clicked.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
Row 1
Row 2
Row 3
Row 4
<button id="colorRows">Color Even Rows</button>
<script>
   $("#colorRows").click(function() {
       $("#myTable tr:even").css("background-color", "lightblue");
   });
</script>
</body>
</html>
```

7. Implement a jQuery slideshow where images fade in and out every 3 seconds

```
automatically.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<style>
.slide { display: none; }
</style>
</head>
<body>
<img class="slide" src="image1.jpg" width="200">
<img class="slide" src="image2.jpg" width="200">
<img class="slide" src="image3.jpg" width="200">
<script>
    var index = 0;
    function showSlide() {
        $(".slide").hide();
        $(".slide").eq(index).fadeIn(1000);
        index = (index + 1) % $(".slide").length;
    }
    setInterval(showSlide, 3000);
    showSlide();
</script>
</body>
</html>
8. Write a jQuery function that expands and collapses a section of text when a
button is clicked.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
<button id="toggleText">Toggle Text
<div id="textSection">This is expandable text.</div>
<script>
    $("#toggleText").click(function() {
        $("#textSection").slideToggle();
    });
</script>
</body>
</html>
9. Create a jQuery function where hovering over an image displays an overlay
effect with some text.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<style>
.overlay {
    position: absolute;
    background: rgba(0,0,0,0.5);
    color: white;
    display: none;
    top: 0; left: 0;
    width: 100%; height: 100%;
    text-align: center; padding-top: 50px;
.container {
    position: relative;
    width: 200px;
</style>
</head>
<body>
```

```
<div class="container">
    <img src="image.jpg" width="200">
    <div class="overlay">0verlay Text</div>
</div>
<script>
    $(".container").hover(function() {
        $(this).find(".overlay").fadeIn();
    }, function() {
        $(this).find(".overlay").fadeOut();
    });
</script>
</body>
</html>
10. Develop a jQuery program where clicking on an item in a list highlights it
and removes the highlight from previously selected items.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<style>
.selected { background-color: yellow; }
</style>
</head>
<body>
ul id="listItems">
    Item 1
    Item 2
    Item 3
<script>
    $("#listItems li").click(function() {
       $("#listItems li").removeClass("selected");
$(this).addClass("selected");
    });
</script>
</body>
</html>
11. Write a jQuery code to hide a <div> when a button is clicked.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
<div id="box">Hide me</div>
<button id="hideBtn">Hide</putton>
<script>
    $("#hideBtn").click(function() {
        $("#box").hide();
    });
</script>
</body>
</html>
12. Create a jQuery function that changes the text of a paragraph () when the
user clicks on it.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
Click me to change text.
<script>
    $("#text").click(function() {
```

```
$(this).text("Text changed!");
    });
</script>
</body>
</html>
13. Write a jQuery program to change the background color of a <div> when the
mouse enters and resets when the mouse leaves.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
<div id="hoverDiv" style="width:100px; height:100px; background:gray;"></div>
<script>
    $("#hoverDiv").mouseenter(function() {
        $(this).css("background", "blue");
    }).mouseleave(function() {
        $(this).css("background", "gray");
    });
</script>
</body>
</html>
14. Create a jQuery function that displays an alert when an input field loses
focus (blur event).
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
<input type="text" id="blurField">
<script>
    $("#blurField").blur(function() {
        alert("Input field lost focus.");
    });
</script>
</body>
</html>
15. Write a jQuery code to fade out an image when a button is clicked.
<html>
<head>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
<img src="image.jpg" id="fadeImg" width="200">
<button id="fadeBtn">Fade Out</button>
<script>
    $("#fadeBtn").click(function() {
        $("#fadeImg").fadeOut();
    });
</script>
</body>
</html>
```