

GETTING STARTED

This is an open book test that covers chapters 4 – 6. Use Microsoft Expression Web or another available HTML editor for this test. Visit the eLearning course site, click **Tests**, then click **Test 2** and download the ZIP file. Save the folder to your desktop. Complete the following projects and submit everything (files, folders, etc.) in a ZIP folder via eLearning by the end of class.

PROJECT 1 [40 PTS]

Please open the **Project-1** folder and view the **index.htm** file in the appropriate HTML editor. Complete the following instructions below:

1. In your text editor, open **index.htm** and enter your name and today's date in the head section. Save your changes.
2. Within the body section, just before the closing `</body>` tag, add a **script** element, and then add the following function within the script element:

```
function processInput() {
    var popWidth = 400;
    var popHeight = 200;
    var popFull = 0;
    var popMenu = 0;
    var popScroll = 1;

    var winWidth = "width=";
    var winHeight = ",height=";
    var winFull = ",fullscreen=";
    var winMenu = ",menubar=";
    var winScroll = ",scrollbars=";

    winWidth += popWidth;
    winHeight += popHeight;
    winFull += popFull;
    winMenu += popMenu;
    winScroll += popScroll;

    var winOptions = winWidth + winHeight + winFull + winMenu + winScroll;

    var winLeft = ((screen.width - 300) / 2);
    var winTop = ((screen.height - 100) / 2);
    winOptions += ",left=" + winLeft;
    winOptions += ",top=" + winTop;
    window.open("confirm.htm", "confirm", winOptions);
}
```

3. Below the function you added in Step 2, add the following function to create an event listener:

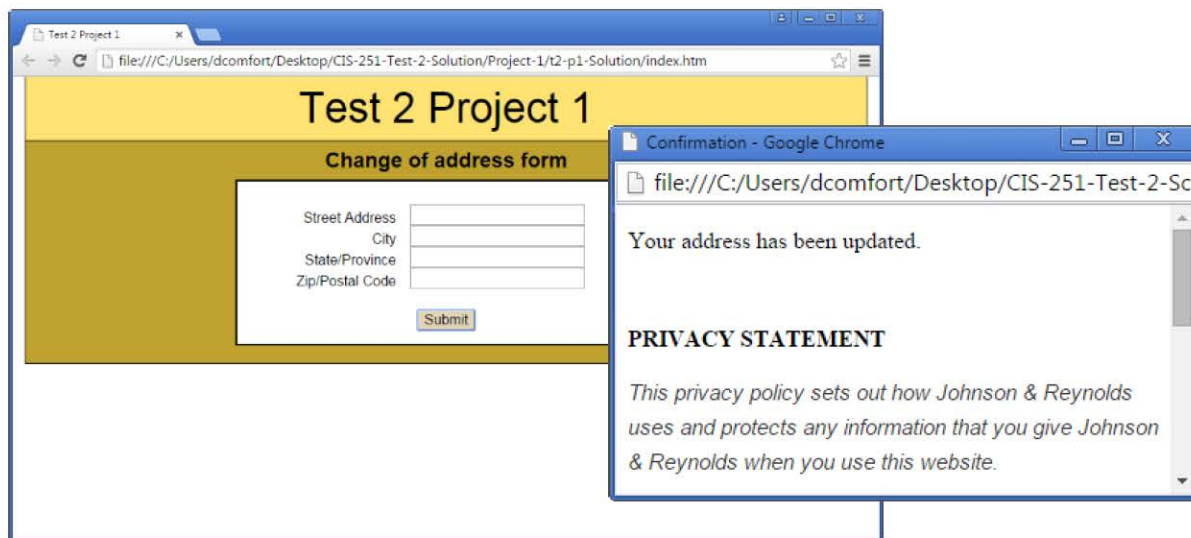
```
function createEventListener() {
    var submitButton = document.getElementById("submit");
    if (submitButton.addEventListener) {
        submitButton.addEventListener("click", processInput, false);
    } else if (submitButton.attachEvent) {
        submitButton.attachEvent("onclick", processInput);
    }
}
```

4. Below the function you created in Step 3, add the following code to create the event listener when the page finishes loading:

```
if (window.addEventListener) {
    window.addEventListener("load", createEventListener, false);
} else if (window.attachEvent) {
    window.attachEvent("onload", createEventListener);
}
```

5. Save your work, open **index.htm** in a browser, and then click the **Submit** button. A window should open with a success message and privacy statement.

NOTE: Please check your browser to make sure that pop ups are not being blocked when testing in the last step. Ask your instructor if you have any questions.



PROJECT 2 [40 PTS]

Please open the **Project-2** folder and view the **index.htm** file in the appropriate HTML editor. Complete the following instructions below:

1. In your text editor, open **index.htm** and **script.js**. Enter your name and today's date in both files accordingly. Save your changes.
2. In the **index.htm** file, in the opening `<form>` tag, add code to disable browser-based validation, and then save your changes.
3. In the **script.js** file, create a global variable named **formValidity**, and set its value to **true**.
4. Add the following function above the `createEventListeners` function to validate required fields:

```
/* validate required fields */
function validateRequired() {
    var inputElements = document.querySelectorAll("input[required]");
    var errorDiv = document.getElementById("errorMessage");
    var travelbook = document.getElementsByName("travel");
    var fieldsetValidity = true;
    var elementCount = inputElements.length;
    var currentElement;
    try {
        for (var i = 0; i < elementCount; i++) {
            // validate all required input elements in fieldset
            currentElement = inputElements[i];
            if (currentElement.value === "") {
                currentElement.style.background = "rgb(255,233,233)";
                fieldsetValidity = false;
            } else {
                currentElement.style.background = "white";
            }
        }
        currentElement = document.querySelector("select")[0];
        // validate state select element
        if (currentElement.selectedIndex === -1) {
            currentElement.style.border = "1px solid red";
            fieldsetValidity = false;
        } else {
            currentElement.style.border = "";
        }
    }
}
```

```

        if (!travelbook[0].checked && !travelbook[1].checked && !travelbook[2].checked) {
            // verify that a travel is selected
            travelbook[0].style.outline = "1px solid red";
            travelbook[1].style.outline = "1px solid red";
            travelbook[2].style.outline = "1px solid red";
            fieldsetValidity = false;
        } else {
            travelbook[0].style.outline = "";
            travelbook[1].style.outline = "";
            travelbook[2].style.outline = "";
        }

        if (fieldsetValidity === false) {
            throw "Please complete all required fields.";
        } else {
            errorDiv.style.display = "none";
            errorDiv.innerHTML = "";
        }
    }
    catch(msg) {
        errorDiv.style.display = "block";
        errorDiv.innerHTML = msg;
        formValidity = false;
    }
}

```

5. Add the following function below the validateRequired function to run form validation:

```

/* validate form */
function validateForm(evt) {
    if (evt.preventDefault()) {
        evt.preventDefault(); // prevent form from submitting
    } else {
        evt.returnValue = false; // prevent form from submitting in IE8
    }
    formValidity = true; // reset value for revalidation
    validateRequired();
    if (formValidity === true) {
        document.getElementById("errorMessage").innerHTML = "";
        document.getElementById("errorMessage").style.display = "none";
        document.getElementsByTagName("form")[0].submit();
    } else {
        document.getElementById("errorMessage").innerHTML = "Please complete the highlighted fields.";
        document.getElementById("errorMessage").style.display = "block";
    }
}

```

```

scroll(0,0);
}
}

```

- The `createEventListener` function already exists, so it doesn't need to be created. It is also already being called from the `setUpPage` function.

Therefore, save your changes to **script.js**, open **index.htm** in a browser, and then test various combinations of invalid data as well as valid data to ensure that the scripts you wrote behave properly. Debug as needed.

The screenshot shows a web browser window titled 'Test 2 Project 2'. The main heading is 'Bob's Travel Book Order Form'. Below the heading is a red-bordered box with the text 'Please complete the highlighted fields.' The form is divided into two main sections: 'Personal Information' and 'Travel Book Order'. The 'Personal Information' section contains input fields for Name, Street Address, City, Email, and Phone. The 'Travel Book Order' section contains a 'Travel Book' dropdown menu, a 'Shipping' dropdown menu, and an 'Add to Cart' button. The form is styled with a light blue header and a light yellow background.

PROJECT 3 [20 PTS]

Please open the **Project-3** folder and view the **index.htm** file in the appropriate HTML editor. Complete the following instructions below:

- In your text editor, open **tt.js** and enter your name and today's date in the head section. Save your changes. Scroll down and examine the code until you understand how the program works.
- Open **index.htm** in a browser. Use the browser debug console and other techniques to identify the errors.
- There are 5 errors in the **tt.js** file that you should identify and debug. When you finish debugging, you should be able to see the full calendar as shown in the screenshot.

The screenshot shows a web browser window titled 'Tipton Turbines - Calendar'. The page features a navigation bar with links for 'Tickets', 'Calendar', 'Players', 'News', and 'Community'. Below the navigation bar is a calendar for August 2016. The calendar is a grid with dates 1 through 31. Each date cell contains a game matchup, such as '@ Lightning', '@ Combines', 'vs Barn Raisers', '@ River Riders', '@ Sodbusters', '@ Big Dippers', and 'vs Combines'. Some dates are marked as '(off)'. The page has a yellow header with the 'TIPTON TURBINES' logo and a red footer with the text 'Tipton Turbines Baseball • Tipton, Iowa'.

Calendar August 2016						
	1 @ Lightning	2 @ Combines	3 @ Combines	4 @ Combines	5 vs Lightning	6 vs Lightning
7 vs Lightning	8 vs Lightning	9 vs Barn Raisers	10 vs Barn Raisers	11 vs Barn Raisers	12 @ Sodbusters	13 @ Sodbusters
14 @ Sodbusters	15 @ Sodbusters	16 (off)	17 @ River Riders	18 @ River Riders	19 @ River Riders	20 @ Big Dippers
21 @ Big Dippers	22 @ Big Dippers	23 (off)	24 vs Sodbusters	25 vs Sodbusters	26 vs Sodbusters	27 vs Combines
28 vs Combines	29 vs Combines	30 (off)	31 (off)			

WRAPPING UP

Once you have completed the test projects, submit everything (files, folders, etc.) in a ZIP folder via eLearning before the deadline.