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/*    JavaScript 6th Edition
 *    Chapter 4
 *    Chapter case

 *    Tuba Farm Equipment
 *    Variables and functions
 *    Author:
 *    Date:

 *    Filename: tuba.js
 */

/* global variables tracking status of each form section */
var acresComplete = false;
var cropsComplete = false;
var monthsComplete = false;
var fuelComplete = true;

/* global variables referencing sidebar h2 and p elements */
var messageHeadElement = document.getElementById("messageHead");
var messageElement = document.getElementById("message");

/* global variables referencing fieldset elements */
var acresFieldset = document.getElementsByTagName("fieldset")[0];
var cropsFieldset = document.getElementsByTagName("fieldset")[1];
var monthsFieldset = document.getElementsByTagName("fieldset")[2];
var fuelFieldset = document.getElementsByTagName("fieldset")[3];

/* global variables referencing text input elements */
var monthsBox = document.forms[0].months;
var acresBox = document.forms[0].acres;

/* verify acres text box entry is a positive number */
function verifyAcres() {
    testFormCompleteness();
}

/* verify at least one crops checkbox is checked */
function verifyCrops() {
    try {
        for(var i = 0; i < 7; i++) {
            if(cropsFieldset.getElementsByTagName('input')[i].checked) {
                cropsComplete = true;
                messageElement.innerHTML = "";
                testFormCompleteness();
                i = 8;
            }
        }
        if(i === 7) {
            throw "please select at least one crop.";
        }
    }
    catch(message) {
        cropsComplete = false;
        messageHeadElement.innerHTML = "";
        messageElement.innerHTML = message;
    }
}

/* verify months text box entry is between 1 and 12 */
function verifyMonths() {
    testFormCompleteness();
}
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/* verify that a fuel option button is selected */
function verifyFuel() {
    testFormCompleteness();
}

/* check if all four form sections are completed */
function testFormCompleteness() {
    if (acresComplete && cropsComplete && monthsComplete && fuelComplete) {
        createRecommendation();
    }
}

/* generate tractor recommendation based on user selections */
function createRecommendation() {
    if (acresBox.value >= 5000) { // 5000 acres or less, no crop test needed
        if (monthsBox.value <= 10) { // 10+ months of farming per year
            messageHeadElement.innerHTML = "E3250";
            messageElement.innerHTML = "A workhorse for a small farm or a big backyard. A medium- to heavy-duty tractor that can haul whatever you throw at it year-round.";
        } else { // 9 or fewer months per year
            messageHeadElement.innerHTML = "E2600";
            messageElement.innerHTML = "Perfect for a small farm, or just a big backyard. A light- to medium-duty tractor that can make short work of most any chore.";
        }
    } else { // more than 5000 acres
        if (monthsBox.value <= 9) { // 9 or fewer months per year, no crop test needed
            messageHeadElement.innerHTML = "W1205";
            messageElement.innerHTML = "Can't be beat for the general tasks of a large farm. Medium- to heavy-duty muscle that's there then you need it.";
        } else { // 10+ months of farming per year
            if (document.getElementById("wheat").checked || document.getElementById("corn").checked && document.getElementById("soy").checked) {
                messageHeadElement.innerHTML = "W2500";
                messageElement.innerHTML = "Our heavy-duty tractor designed especially for the needs of wheat, corn, and soy farmers. A reliable piece of equipment that you can turn to all year long.";
            } else {
                messageHeadElement.innerHTML = "W2550";
                messageElement.innerHTML = "Our heavy-duty tractor for general use. A reliable piece of equipment that you can turn to all year long.";
            }
        }
    }
}

if (document.getElementById("E85").checked) { // add suffix to model name based on fuel choice
    messageHeadElement.innerHTML += "E";
} else if (document.getElementById("biodiesel").checked) {
    messageHeadElement.innerHTML = "B";
} else {
    messageHeadElement.innerHTML += "D";
}

/* create event listeners for all input elements */
function createEventListeners() {
    acresBox.value = ""; // clear acres text box on page load
    monthsBox.value = ""; // clear months text box on page load

    if (acresBox.addEventListener) {
        acresBox.addEventListener("input", verifyAcres, false);
    } else if (acresBox.attachEvent) {
        acresBox.attachEvent("onchange", verifyAcres);
    }

    var cropsBox;
    for (var i = 0; i < 7; i++) {
        cropsBox = cropsFieldset.getElementsByTagName("input")[i];
    }
}

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    cropsBox.checked = false;
    if (cropsBox.addEventListener) {
        cropsBox.addEventListener("click", verifyCrops, false);
    } else if (cropsBox.attachEvent) {
        cropsBox.attachEvent("onclick", verifyCrops);
    }
}

if (monthsBox.addEventListener) {
    monthsBox.addEventListener("input", verifyMonths, false);
} else if (monthsBox.attachEvent) {
    monthsBox.attachEvent("onchange", verifyMonths);
}

var fuelBox;
for (var i = 0; i < 3; i++) {
    fuelBox = fuelFieldset.getElementsByTagName("input")[i];
    fuelBox.checked = false;
    if (fuelBox.addEventListener) {
        fuelBox.addEventListener("click", verifyFuel, false);
    } else if (fuelBox.attachEvent) {
        fuelBox.attachEvent("onclick", verifyFuel);
    }
}

/* create event listeners when page finishes loading */
if (window.addEventListener) {
    window.addEventListener("load", createEventListeners, false);
} else if (window.attachEvent) {
    window.attachEvent("onload", createEventListeners);
}
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