

Course:	INFO1232, Programming Fundamentals for Web Development
Professor:	Daniel Malnati
Project:	Lab 6
Due Date:	Friday, March 22nd @ 2:00 pm
Submitting:	FOL Submissions folder, Lab 6
Student Name:	

Lab Description

- Download "StarterCode_Lab6" from the FOL Submission Folder "Lab 6", rename the html file with your first name followed by an underscore and then "Lab6". For example, "Daniel_Lab6.html".
- Your Web Page will serve as an internal tool for the *IWD Postal Service*. Where the user can view all parcels in the system, create new parcels, and process parcels.
 - The user will be able to view a filtered list of parcels using a dropdown list filtering by parcel status.
 - The user will be able to input a tracking number and modify the parcel associated with that tracking number using a dropdown list and button.
 - The user will be able to create new parcels as well. For newly created parcels: Tracking numbers are generated randomly, and the parcel status is set to *Processing*.
- Create a constructor for the Parcel object, with the following parameters:

The screenshot shows a web interface for the IWD Postal Service. It has a blue header with the IWD logo and the text "INTERNATIONAL" and "POSTAL SERVICE". Below the header, there are three main sections:

- Create a Parcel:** This section has a "Destination" dropdown menu set to "Alberta", a "Weight (g)" input field set to "0", and an "Express Shipping" checkbox. There is a "Create Parcel" button.
- Process a Parcel:** This section has a "Tracking Number" input field and a "Set Status" dropdown menu set to "Shipped". There is a "Process Parcel" button.
- Display Parcels:** This section has a "Status" dropdown menu set to "All". Below it is a table listing parcels with columns for Tracking Number, Status, Destination, Weight, and Express Shipping.

Tracking Number	Status	Destination	Weight	Express Shipping
IWDCNH4E9GPXI	Delivered	Ontario	12(g)	false
IWDVCI626ZPME	Shipped	Manitoba	6(g)	false
IWD4TEBXRFWQC	Shipped	British Columbia	20(g)	true
IWDK7FJROP3EK	Processing	Quebec	18(g)	true
IWDHUJ6JNEX5W	In Transit	Alberta	5(g)	false
IWDC5R2CJZJ87	Processing	Nova Scotia	10(g)	true
IWD4L3IXANPYE	In Transit	New Brunswick	10(g)	false

Parcel	
trackingNumber	String value – used to identify a parcel
status	String value – parcels current step in the mailing process
destination	String value – destination for parcel
weight	Float value – weight of parcel, used for cost of shipping calculation
express	Boolean value – an optional shipping option to ensure a speedy delivery at an extra cost, used for cost of shipping calculation

- Create an array to store the parcel objects in **global** scope.

5. In Global scope, create some parcel objects and store them in the **global** parcels array.
(Note: You can call the generateTrackingNumber function instead of hardcoding the tracking numbers.
Whichever you prefer.)

Some sample Parcel data				
trackingNumber	status	destination	weight	express
IWD0000000001	Processing	Ontario	12	true
IWD0000000002	Shipped	Alberta	34	true
IWD0000000003	In Transit	Manitoba	56	false
IWD0000000004	Delivered	Quebec	78	false

6. Create and Implement the following functionality for each of these functions:

<p>createParcel()</p> <div> <div>Create a Parcel</div> <div> Destination: <input type="text" value="Yukon"/> Weight (g): <input type="text" value="200"/> Express Shipping: <input checked="" type="checkbox"/> </div> <div>Create Parcel</div> </div> <div> <div>Display Parcels</div> <div> Status: <input type="text" value="Processing"/> </div> <div> <div>Tracking Number Status Destination Weight Express Shipping</div> <div> IWDKP3HZM9T9B Processing Quebec 18(g) true IWDVXVLFX0JCG Processing Nova Scotia 10(g) true IWDT49WST6E92 Processing Yukon 200(g) true </div> </div> </div>	<p><i>This function is triggered when the user clicks the “Create Parcel” button. This will create a new parcel object and add it to global array of parcels. For newly created parcels: Tracking numbers are generated randomly, and the parcel status is set to Processing.</i></p> <p>In your function:</p> <ul style="list-style-type: none"> • Use the generateTrackingNumber() function to get a tracking number for the Parcel you’re creating. • Status will be set to “Processing”. • Get the values of the 3 elements in the form. (get checked, from the checkbox) • Call the Parcel Constructor and pass it the 5 values to create the Parcel Object. • Add this object to the parcels global array. • Call the displayParcels() function.
<p>displayParcels()</p> <div> <div>Display Parcels</div> <div> Status: <input type="text" value="All"/> </div> <div> <div>Tracking Number Status Destination Weight Express Shipping</div> <div> IWDYKZYKDKOT8 Delivered Ontario 12(g) false IWD6VTF7EHSXA Shipped Manitoba 6(g) false IWDMPHRV3VVFV5 Shipped British Columbia 20(g) true IWD1WNTREEZPT Processing Quebec 18(g) true IWDK53N8T0C5K In Transit Alberta 5(g) false IWD50786JG0S7 Processing Nova Scotia 10(g) true IWD00FVYHYJC1 In Transit New Brunswick 10(g) false </div> </div> </div> <div> <div>Display Parcels</div> <div> Status: <input type="text" value="Processing"/> </div> <div> <div>Tracking Number Status Destination Weight Express Shipping</div> <div> IWDFOX5I8QWUH Processing Quebec 18(g) true IWDWN9FV6SQLG Processing Nova Scotia 10(g) true </div> </div> </div>	<p><i>This function will be called when the page loads as well as when the createParcel() and processParcel() functions are called.</i></p> <p><i>This function will output the array of parcels, but will only output the parcels that match the status selected in the dropdown box. If “All” is selected, just output the entire array of parcels.</i></p> <p>In your function:</p> <ul style="list-style-type: none"> • Clear the contents already in the output div. • Get the value from the status textbox. • Output the global parcels array to the output div. <ul style="list-style-type: none"> ○ If the value is “ALL”, output all the parcels in the global array. ○ Otherwise, only output the parcels with the same status as the one selected.

processParcel()

Process a Parcel

Tracking Number: IWDF0X5I8QWUH

Set Status: Shipped ▼

Process Parcel

Display Parcels

Status: Processing ▼

Tracking Number | Status | Destination | Weight | Express Shipping

IWDF0X5I8QWUH | Processing | Quebec | 18(g) | true

This page says

Shipping for Parcel: IWDF0X5I8QWUH
\$17.97

OK

Process a Parcel

Tracking Number:

Set Status: Shipped ▼

Process Parcel

Display Parcels

Status: Shipped ▼

Tracking Number | Status | Destination | Weight | Express Shipping

IWDF0X5I8QWUH | Shipped | Quebec | 18(g) | true

This function will trigger when the user clicks the "Process Parcel" button.

Using the tracking number entered, find the parcel in the array with the matching number and use it for processing.

In your function:

- Get the values from the textbox and the dropdown
- Find the parcel in the array that matches the tracking number provided
 - (Optional) If the parcel isn't found or no number was provided, alert the user
- Assign the new status to the parcel's status property
- Calculate the Cost of shipping for this parcel:
 - Flat rate of \$5
 - Add \$10, if the parcel has Express Shipping.
 - Add \$0.05 per gram(g) that the parcel weighs
 - Apply Tax (13%)
- Alert the user with the Tracking Number and the cost of shipping. *See sample output left*
- Call the **displayParcels()** function.

Marks	What are Marks Awarded For?	Earned
1	Comments <ul style="list-style-type: none">• Page documentation including name, date, purpose• Script comments for each process	
1	No Errors <ul style="list-style-type: none">• Page does not throw any errors on load	
2	Parcel Constructor <ul style="list-style-type: none">• Constructor uses 5 parameters to assign to object properties• Constructor is called and created objects are added to the global parcels array	
3	Display Parcels <ul style="list-style-type: none">• Output is clean, and doesn't append to previously output data• Array outputs correctly, based on the selected status filter• This function is called, at the end of the createParcel() and processParcel() functions	
2	Create Parcel <ul style="list-style-type: none">• generateTrackingNumber() is used for tracking numbers when creating new parcels from web page• Parcel object is created and added to the array using the values from the web page	
3	Process Parcel <ul style="list-style-type: none">• Uses Tracking number correctly• Parcel Status Modified correctly• Shipping cost calculated and output correctly	
12	Total (Web page runs and meets the lab requirements)	