Assignment 3

Important Notes:

- This is an **individual assignment**.

- I will be checking for borrowed or copied assignments. All work is to be done from scratch, you may not use any templates or other assistances. **Do not reuse your old assignments.**

- This assessment is out of 20 marks total.

Note:
In this assignment you have write **server-side validations** and do **server-side processing** only using Express web application framework. **All the validations and form processing must be on the server-side only.** No marks will be awarded for client-side validations or client-side processing of the form.

Tasks:
In this assignment, you are to develop a web application for an online store. The type of store that you design, and its products and inventory is left to your discretion.

1. HTML Static Content - Web Form served using Express. **(3 marks)**

   - The front end must collect all the information needed to make a sale to the customer. I have included a few in the description which are mandatory and must be included in your form.
   - At least 2 products should be available for purchase. The application's business logic must handle the products correctly.

2. JavaScript – Server-side form validations and server-side form processing:

   - All JavaScript code must be located on the server-side. **(1 mark)**
   - The following user inputs must be validated:
     - Mandatory fields **(2 Marks)**:
       - Name
       - Address
       - City
       - Province
     - Fields with specific format **(2 marks)**:
       - Phone number validation.
         eg: 5198201234

- Email validation.
  eg: test@test.com

- If any errors exist, display a unique message for each erroneous input. Do not use a JavaScript popup box for this purpose. **(1 mark)**

- Generate a receipt to give to the customer, including all the information entered by the user and the products bought. Use only server-side scripting for this. Do not use any client-side code for processing the form. **(2 marks)**

- Calculate and include sales tax for **each** province/territory in Canada. **(1 mark)**

- Make sure that the receipt is generated only if the customer has bought products worth $10 or more. Otherwise give an error to the customer and tell them that the minimum purchase should be of $10. **(1 mark)**

3. Video demo explaining your code and showing the final execution of the assignment. **Make sure to showcase all the form validations mentioned above properly and then submit the form to generate the receipt.** For the video demo, you are not required to use your camera, but you can if you want. You are only required to record your screen and your voice explaining the solution. **Please submit .mp4 files only.** You can use Zoom/PowerPoint for doing that, but you can use any other software for recording the video too. **(5 marks)**

4. Programming Style, Standards and overall completion of the tasks. **(2 marks)**

   It is a good idea to practice conforming to a set of programming standards. Refer to the posted summary of the IT Standards posted in IT Programs > General Resources.

   You can choose the design, fonts and colors as per your preference as long as you fulfill the minimum requirements mentioned above. You can name your online shop as per your liking and the product names too.

Submissions:

To submit this assignment:

1. Place all of your code into a single folder. Zip (or RAR) this folder and submit the zipped file to eConestoga. No cover sheet is required for this assignment. A good way to make sure everything is correct; is to unzip the file you are submitting on a different location on your computer and making sure everything works.

2. **Upload the video explanation separately from your code zip file.** Please do not zip your video with the code. You may have to make a second submission for that as the dropbox only allows you to submit one file at a time. **Submit .mp4 files only for the video.**

Note: You can submit multiple times if you want. Please mention in comments which submission to evaluate. Also note that if you resubmit after the due date, late penalties apply as per your Program Handbook.