SFWRTECH 4WP3 – Advanced Web Programming - Assignment #1

Due date

Tuesday January 28th at 11:59pm

Primary Learning Objectives

- Implement responsive design (change webpage style according to different screen size)
- Use a front-end framework to implement responsive design using a grid system

Requirements

Find and unzip StarterCode.zip on Avenue to Learn. Use the code provided for Part A.

Part A

You will find a webpage in the starter code that is styled to appear as shown in Figure 1:
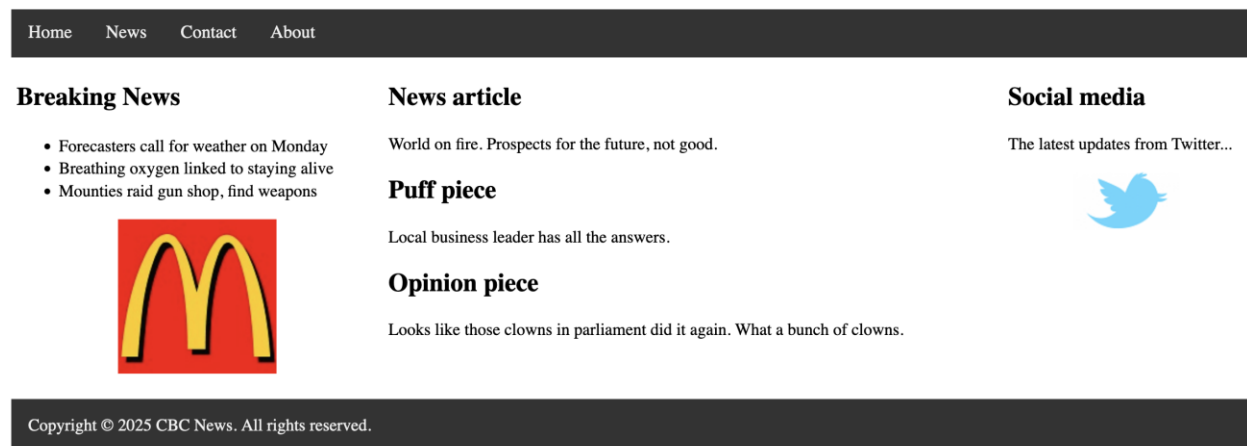

Figure 1 - Before

Alter the contents of responsive.css so that when the browser window (or screen size) width goes below 800px, the webpage will automatically alter itself to look as in Figure 2:

CBC News

Breaking News

- Forecasters call for weather on Monday
- Breathing oxygen linked to staying alive
- Mounties raid gun shop, find weapons

News article

World on fire. Prospects for the future, not good.

Puff piece

Local business leader has all the answers.

Opinion piece

Looks like those clowns in parliament did it again. What a bunch of clowns.

Social media

The latest updates from Twitter...

Figure 2 - Responsive changes at 800px or less width

You will need to make the following changes to the page to do so:

- Remove the Twitter logo image

Also alter the contents of responsive.css so that when the browser window (or screen size) width goes below 600px, the webpage will automatically alter itself to look as in Figure 3:

CBC NEWS

Breaking News

- *Forecasters call for weather on Monday*
- *Breathing oxygen linked to staying alive*
- *Mounties raid gun shop, find weapons*

News article

World on fire. Prospects for the future, not good.

Puff piece

Local business leader has all the answers.

Opinion piece

Looks like those clowns in parliament did it again. What a bunch of clowns.

Social media

The latest updates from Twitter...

Figure 3 – Responsive changes at 600px or less width

You will need to make the following changes to do so:

- Change the navigation menu to be stacked vertically
- Change the three columns to the stacked vertically
- Make the "CBC News" headline title uppercase and 40px font size
- Make the "Breaking News" list items italicized
- Remove the McDonald's ad
- Change the h2 tag colors to red
- Change the footer text to have a 24px font size

Use flexbox to help solve this problem.

Part B

Create a website layout for a fictitious real estate website named **Hamilton Homes** using Bootstrap (version 5). The website layout should have the following features:

- A navigation bar with the following navigational links:
  - Home
  - Seach
  - Map
  - Calculator
  - Realtors
  - Login
- When the browser window is made as small as possible, the navigation menu should turn into a "hamburger menu".
  - Note that simply using the Bootstrap navbar component should give you this functionality automatically.
- You only need to create the Home page, not all of the other pages.
  - The Home link in the nav should be "active".
  - The Home page should have 3 columns. Put some content that would be appropriate for a real estate listing website into these columns, including at least one image appropriate for a real estate listing website.
  - At the extra small Bootstrap breakpoint, the 3 columns should be stacked on top of one another vertically, each taking up 100% of the width of the page. At this point, they are essentially no longer columns.
  - But between the small to large Bootstrap breakpoints, the 3 columns should have a 33% - 33% - 33% ratio (in other words, each column should take up 1/3rd of a width of the page).
  - And from the extra large Bootstrap breakpoint and beyond, the 3 columns should have a 25% - 50% - 25% ratio (in other words, the two side columns should take up 1/4 of the page, and the middle column should take up 1/2 of the page).

Save your website layout (the "home page" only). Save the file as home.html underneath a folder named part b.

Submission

Zip your solution as assignment1.zip and upload it to the dropbox on Avenue.

Marking rubric

Each part will be graded as either unsatisfactory or satisfactory.

Grade	Definition
Unsatisfactory	The answer is fundamentally incorrect, incomplete, and/or contains at least one critically important mistake, or the answer does not demonstrate a reasonable understanding of the material.
Satisfactory	The answer is overall correct and largely complete, it may contain multiple minor mistakes or even a major mistake, and the answer does demonstrate a reasonable understanding of the material.

To achieve a grade of satisfactory on the assignment overall, both parts must receive a grade of satisfactory.

Otherwise, a failure grade of unsatisfactory will be assigned.

Please keep in mind you will be provided with feedback to make you aware of which questions have what issues, if any, and you will have the ability to re-submit the assignment.

Weight

The assignment is worth approx 5.56% of the total grade. A reminder that 6 out of 9 assignments must receive a passing grade (satisfactory or exceeds expectations) in order to pass the course.

For the purposes of a letter grade, a grade of satisfactory translates to a grade of 100% on the assignment, and a grade of unsatisfactory translates to a grade of 0% on the assignment.