

**MIS 3690 Web Technologies - Babson College**  
**Exam – 2019 Fall – Section 1**

This is an open-book, open-notes, open-web examination. However, you cannot use email or any messaging tool; you cannot communicate in any way with other people during the course of this exam. The exam is worth 100 points. You have 100 minutes to complete this examination.

**How to start:**

Accept the exam and clone the repository (be sure the repository name contains your id) to your computer by clicking "Clone or download" - "Open in Desktop". In GitHub Desktop, open the cloned repository in VS Code by clicking "Repository" - "Open in Visual Studio Code".

**How to turn in:**

1. Commit and push to GitHub. Check your push on Github.com and confirm the code is synced.
2. Leave the URL of your exam GitHub Repository in the comments area on Blackboard.

The exam has four questions. The first question requires you to create a web page using HTML and CSS. The other three require you to create the specified functionality using JavaScript. The template for each question is the HTML file with name - **index.htm**, **q2.htm**, **q3.htm**, and **q4.htm**. **Please do not change the file names.** Once you have tested the files and pushed the repository, please write down the time-stamp on the repository below your signature.

**Honor Code:**

**I pledge my honor that I have neither received nor provided unauthorized assistance during the completion of this work.**

Your Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Time Stamp: \_\_\_\_\_

## 1 – index.htm (50 points)

**Q1a.** (15 points) Please use the file **index.htm** and **nav.css** to build the web page in *Figure 1* in next page. The following are the specifications to complete this question:

1. (3 points) Add the image “*celtics.svg*” to the left of navigation. You may need to set the height to a proper value.
2. (6 points) In navigation, create an unordered list with four list items. Each list item is a link, which links to **index.htm**, **q2.htm**, **q3.htm**, **q4.htm** respectively.
1. (4 points) Create a table with the provided information. The first image is “*DAL\_log.svg*”, the second image is “*WAS\_logo.svg*”; height of both images is “60”.
3. (2 points) The last column in first row is an embedded YouTube video. The link to the YouTube video is <https://www.youtube.com/watch?v=rfYdoYBQedk> . You need to set the height to “150” and width to “260”.

**Q1b.** (22 points) Please follow the instructions below to stylize the **navigation** in **index.htm** using **external** CSS file, **nav.css** (2 points):

1. (2 points) The page must have **zero** margin.
2. (2 points) The **background color** of **navigation** must be #008348.
3. (2 points) Use **display: inline-block** to display list items horizontally.
4. (5 points) All of the elements must be set with the same width/height/margins/paddings as shown in *Figure 1*.
5. (3 points) All the links must use **white** color, font size of 18px, and font family **sans-serif**.
6. (1 point) All links must **remove underlines**.
7. (2 points) Each link has the following **paddings**: 10px for top and bottom, 15px for left and right.
8. (3 points) When user mouses over any of the links, the **background color** of that link becomes **white** and **text color** becomes #008348. (You **cannot** use JavaScript here.)

**Q1c.** (13 points) please follow the instructions below to stylize the **table** in **index.htm** using **internal** CSS:

2. (2 points) **Center** the table.
3. (2 points) Add **border** for the table, with **border color** #ecec44.
4. (3 points) Set the width and height of rows and columns as shown in *Figure 1*.
5. (2 points) The first column has **background color** #e1e444.
6. (2 points) The dates and scores use font size of 22px. All other text uses font size of 10px.
7. (2 points) You need to use at least one **advanced selector**. Add **comment** below where you use it.

Please refer to the instructions in the **q2.htm (20 points)**, **q3.htm (15 points)** and **q4.htm (15 points)** for answering the next three questions. You need to keep the **same navigation (as in index.htm)** in q2.htm, q3.htm and q4.htm (that is why you need to use **external** CSS for navigation.) Please **do not** modify file **instructions.css**.

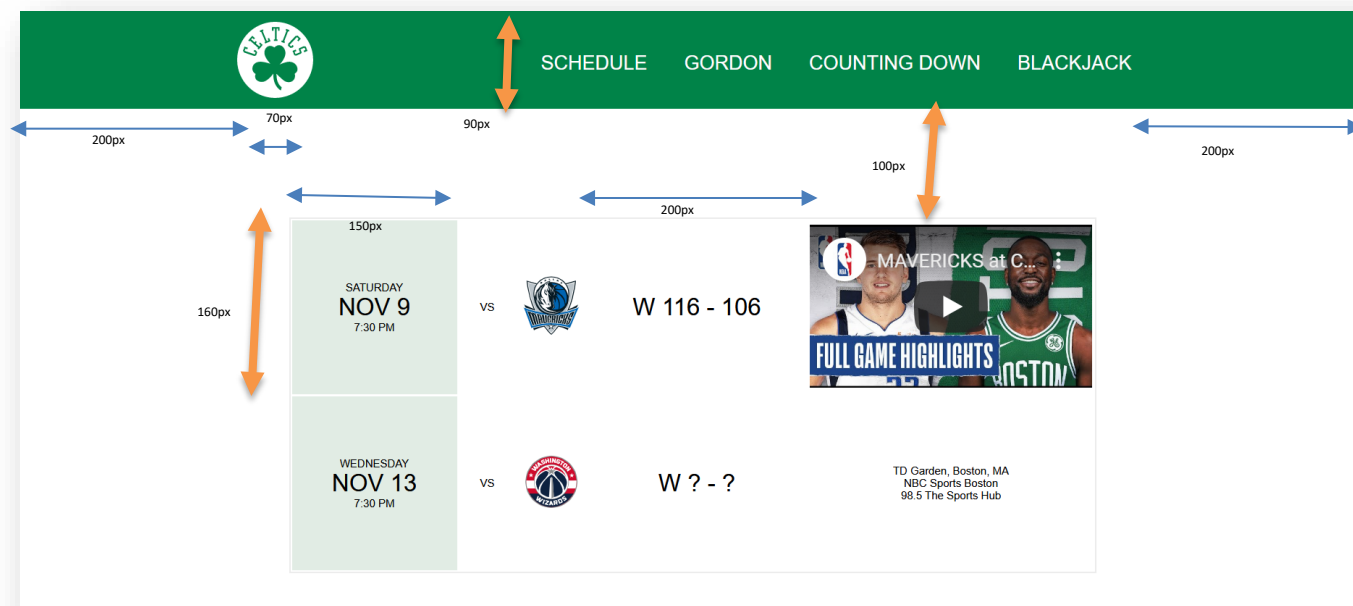





Figure 1. Demo page for **index.htm**

## 2 - q2.htm



SCHEDULE
GORDON
COUNTING DOWN
BLACKJACK

### Gordon Hayward

Please create **one** function to do the following: (a) when user clicks on first picture, h1 must be changed to "Gordon Hayward is Serious", the second picture must disappear; (b) when user clicks on the second picture, h1 must be changed to "Gordon Hayward is Smiling", the first picture must disappear; (c) when user **double-clicks** on h1, h1 must be changed to "Let's Go, Celtics!", both pictures must re-appear.

### 3 – q3.htm

SCHEDULEGORDONCOUNTING DOWNBLACKJACK


## Counting down...

Modify this page so that the following animation starts when the button is clicked. Every second, the number with id "number" should decrease by 1. When the number reaches 0, the number 0 should be displayed in red color. Then the number should be reset to 10 in black color and start a new round of counting down.

10




Count Down

### 4 – q4.htm

SCHEDULEGORDONCOUNTING DOWNBLACKJACK

## Yet Another Blackjack

In this version of Blackjack, the player always deals three cards. When the button is clicked, the page should be updated replacing the three cards with three random cards facing up. The card images for each value/shape are inside 'images' folder. When player's hand (which is the sum of three cards' values) exceeds 21, the paragraph above button should show "You are Busted", otherwise it should show "You are Not Busted". The value of cards two through ten is their pip value (2 through 10). Face cards (Jack, Queen, and King) are all worth ten. To simplify this game, Ace is worth one.



You are Not Busted.

Hit