



# Midterm Exam

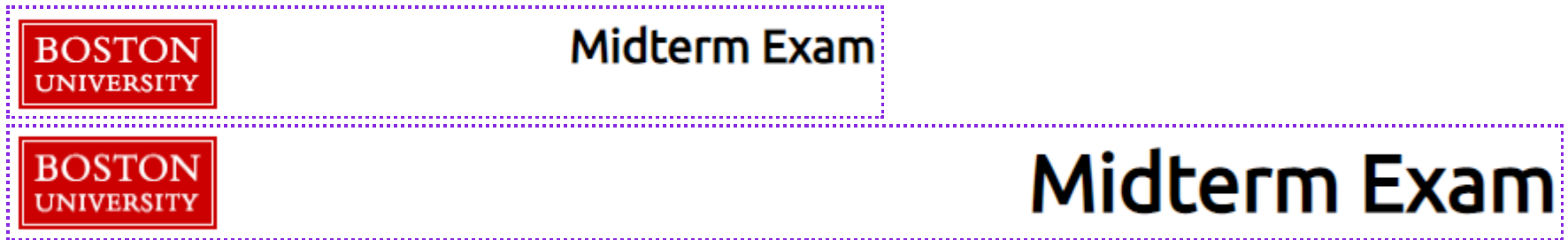
Please all of the questions below in their own .html file. Once you complete all ten (10) questions, zip up all your files and upload just one .zip to blackboard.

1. Replicate these images with HTML, CSS and if you need to, with JavaScript.  
(Yes, they have to show or render exactly how I have shown them below)



2. Use this BU logo <http://bit.ly/2KzWADI> on the far right side (hugs the right side) and an h1 element that has the words, "Midterm Exam" on the left (hugs the left).

If I resize the browser, the font and the image should scale (down or up, depending on the browser size) to a minimum of 10 pixels for the font and image should be visible even when resized to 300 by 240 (iPhone 4 screen size). This is important: **The image and h1 elements should always stay pegged to the right or the left sides, as specified.**



3. Create an HTML page having 5 or more div elements each with a unique title and placeholder attribute.

**This question has 2 parts:**

- When your DOM is completely loaded, use an iterative control structure to attach callbacks to each div. These callbacks will output the ID value to an existing section element in your HTML with the current timestamp and the title of it when clicked on. You must bind the click on these div elements dynamically. **You will not receive credit for this aspect if you do not dynamically bind the event.**  
The text showing in the section element should resemble something like this: *At 6/26/2019 7:23 PM EST this is the unique title for this div in my page*
- Using correct method, attach the mouse over event to those same elements in the first part of this question, and output that element's placeholder attribute value to console.

4. The following object literal is broken. Find all the problems and fix them. Do not delete anything -just fix it all so that it works.

```
{ first-name; Andrew;; age =; 4; date!of*birth: July ;7; 1098; array(); = ['harry', potter];}
```

5. Create 10 paragraphs in a page.

When they are clicked on, make it have a border (a thin blue, dotted 1 pixel border). But, If I click it again, remove the border.

6. Write examples of all the different ways to create functions in JavaScript using event handlers that show your functions work. (Example, use click or mouse over)

7. Create an HTML form as shown below. Show how you would valid each field on form submission.

### Contact Form

The image shows a contact form with the following elements:

- A title "Contact Form" in bold black text.
- Four input fields stacked vertically, each with a light gray border and a placeholder label inside:
  - Name
  - Email
  - Subject
  - Message (a larger text area)
- A green button with white text labeled "Send Message" at the bottom left.

If your validation fails on the user's input, do not let the form be submitted. (Show how to stop a form from being submitted.)

8. Show how you properly use destructuring on this object literal:

```
{first_name: "Andrew", "last_name": "Sheehan", age: 29, height: "6.1"}
```

## 9. What is wrong with this code? Fix all the errors.

```
int k = 0;
const 8ball = "grilled cheese";

if ( const i = 1: i < j: i++) {
{
    document.alert("I'd like to have tomatoes with my &{8ball} and a slice of deli ham on the side, please...");
}
```

## 10. This last question is tough. Give it your best effort.

For this question assume you have a test page for Expedia.com. You want to test 2 textfields that use a date picker that raise a message to the user, based on the dates they pick. (You can use any datepicker - your choice). The first date picker has a placeholder that says "Departing On" and the other (to the right of it) has another date picker that has a placeholder for "Returning On". After the user indicates their departing and return dates, you calculate the number of travel dates between those dates.

**Only show a message after both dates have been indicated. Have logic checks in place, in case of:**

- If the return date is before the depart date, say, It appears your dates are inverted. Please correct.
- If the return date is more than 1 month, just say, "You have a 30+ day duration. Please make sure your dates are correct.
- If the depart date is equal to the return date, say, "It appears you are coming back on the same day as your departure. Please make sure this is correct.
- If the travel duration is greater then 1 year, say, It appears your travel is greater then 1 year. Please make sure this is correct.