SWE 642: Assignment 1

This homework is comprised of two parts.

Your first assignment is to create your own website (homepage) as well as a website to provide information about the Computer Science (CS) department including a Survey Form using HTML5, CSS, and Bootstrap CSS framework. The Survey form allows prospective students to provide feedback about their campus visit.

- You will use Simple Storage Service (AWS S3) with your free-tier AWS account to host your homepage. Reference for setting up a static website on AWS S3:
- https://docs.aws.amazon.com/AmazonS3/latest/userguide/HostingWebsiteOnS3Setup.html
- http://docs.aws.amazon.com/AmazonS3/latest/dev/HostingWebsiteOnS3Setup.html

- In addition, use the Elastic Compute Cloud (EC2) service to create an EC2 instance (a virtual server in AWS), install a web server on the EC2 instance, and deploy your websites on the web server on EC2 machine.
- How to Create an EC2 Instance in AWS
    - https://www.youtube.com/watch?v=0Gz-PUnEUF0

Please provide a URLs to access your web page along with all source code (html, CSS, etc.), a brief documentation on steps used to deploy on S3 and EC2 instance as part of the assignment submission in a zip file on the class blackboard by the due date.

Part1: Student Class Web page

Your first assignment is to create your own Web site (homepage). Your homepage should contain a picture and a brief description of yourself. Please use one of the W3.CSS Templates to enhance the look and feel of your homepage – the landing page hosted on Amazon S3. https://www.w3schools.com/w3css/w3css_templates.asp

Part2: HTML5, CSS, Bootstrap

The second part of this assignment is to create a Web site to provide information about the Computer Science (CS) department including a Survey Form using HTML5, Cascading Style Sheet (embedded or external), specifically Bootstrap CSS framework.

The CS Department Information page should include the following.

- Start with a paragraph (or two) providing a brief description of the department. (You can come up with your own text or borrow from the department's web page). Use HTML heading elements to format text on your page according to importance.
- Provide the list of MS Degrees using the HTML List elements.
- Indicate the required courses for each MS degree program using a table with the course number and course name as the columns. Sample courses should be good enough.

Create a CS Department Survey page that allows prospective students to provide feedback about their campus visit.

- This web page should contain a form with text boxes using appropriate input types for the username, street address, city, state, zip, telephone number, e-mail, URL, and date of survey.
- Provide checkboxes that allow prospective students to indicate what they liked most about the campus. The checkboxes should include: students, location, campus, atmosphere, dorm rooms, and sports.
- Provide radio buttons that ask the prospective students how they became interested in the university. Options should include: friends, television, Internet, and other.
- Ensure your check boxes and radio buttons can be activated by clicking on the respective labels
- Provide a text area for additional comments, and a submit button.
- Using the datalist feature, enable the user to select high-school graduation month (January through December), followed by a text field for year.
- Enable the autocomplete attribute for the entire survey form that will allow the user to automatically fill in his/her information (e.g., name, address, email, telephone, etc.) based on previous input.
- Use placeholders where you deem appropriate (e.g., for the date format, email, URL, etc.) that provides an example of the text and/or format/pattern the user should enter.
- Use the required attribute for fields as appropriate that forces the user to enter or select a value before submitting the form.
- Visually indicate to the user which fields are required
- When the survey form is opened, you should automatically provide the focus in the first text field on the form to allow the user to begin typing in that field immediately. Provide dropdown list of options for the user to select the likelihood of him/her recommending this school to other prospective students. The three options of the dropdown list are: Very Likely, Likely, Unlikely.

Provide a hyperlink to the CS Department Survey Page from the CS Dept Information Page.

- In addition to using Bootstrap CSS classes, your web page should make use of the George Mason University color scheme in some way. Green: #006633 Yellow: #FFCC33
- The CSS should also be used for fonts, colors, background etc. You are free to be as creative as you'd like. At the very least, the style sheet should include a rule that displays h1 elements in GMU Green (#006633), as well as create a custom style class that could be used for any element on the page.
- The heading at the top of the page should be inside a rectangular box with a solid border in GMU green (#006633) and 5px width. The box should use a box-shadow of your styling choice.
- The body of the window rendering your page should have a light gray (or a color of your choice) background.
- While your HTML5 pages must satisfy all the above criteria, they need not be limited to them. Be creative!

Submission

Please create a link of the second part of this homework on your class web site. That is, post a link to the CS Department Information page along with the Student Survey Form on your class home page you created for Part 1 of this assignment. Deploy the same application on S3 as well as on EC2 and provide both URLs to access your application.

NOTE: We will access each assignment shortly after the due date and not look at your web site afterwards. If you submit an assignment late, you must send an email to me & the TA telling us

that it is ready (late penalty will apply). You must include "swe642" in the subject of the email.

Please submit homework on the Blackboard by providing a zip file with URL and all related files and documentation to setup your S3 bucket and EC2 instance. Making your work available to me and the GTA is your responsibility; if we cannot access your files then you will not get credit. Be sure to test the access to your file before the due date.

Useful Links:

https://getbootstrap.com/docs/5.3/getting-started/introduction/
https://www.w3schools.com/w3css/default.asp
https://www.w3schools.com/w3css/w3css_templates.asp
https://www.w3schools.com/w3css/w3css_templates.asp
https://docs.aws.amazon.com/AmazonS3/latest/userguide/HostingWebsiteOnS3Setup.html
http://docs.aws.amazon.com/AmazonS3/latest/dev/HostingWebsiteOnS3Setup.html

Grading Rubric

The following areas will be used in the basic grading of the projects:

- Does your solution meet the functional requirements: 70 points
- Does your solution use Bootstrap framework: 15 points
- Is the assignment solution accessible without errors: 13 points
- Comments: 2 points