

## SWE645 – Assignment 1

This assignment is comprised of two parts.

### Part1:

Your first assignment is to create your own class homepage using a simple HTML file (e.g., index.html) and an error page (e.g., error.html). The error page could be used to render a message to the users if the main page is not available for any reason. Your homepage should contain at least an image (a picture) and a small paragraph with some content of your choice. You will use AWS Simple Storage Service (AWS S3) to create your homepage. This homepage will be used to provide links to your future homework submissions.

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](https://www.w3schools.com/w3css/w3css_templates.asp) )

Reference: Setting up a static website on AWS S3

<http://docs.aws.amazon.com/AmazonS3/latest/dev/HostingWebsiteOnS3Setup.html>

### Part2:

Your second part of the assignment involves creating a Dynamic Web Project using your favorite IDE such as, Eclipse EE. The project includes a Student Survey form (HTML) and an external cascading stylesheet (CSS). The requirements of the Student Survey form and the stylesheet are described below. Make sure you can deploy and access your application on your local Tomcat instance, prior to deploying the war file on the Tomcat server running on Amazon EC2 instance in AWS cloud. Please add the link of your application to your website on Amazon S3, that you created in the Part1 section of this assignment. Also, provide URL of your homepage as well as of the application deployed on EC2 in readme file as part of your HW submission on the class blackboard.

#### **1. Use an EC2 Amazon Machine Image (AMI) labeled “Tomcat Certified by Bitnami” found under AWS Marketplace to launch your EC2 instance.**

- Provision a free tier eligible Amazon EC2 instance using an Amazon Machine Image (AMI) that may already have Tomcat configured.
- For example, once you are on EC2 Console, click Launch Instance link. For the AMI, search for key word “Tomcat” in AWS Marketplace and select the machine image labeled something like “Tomcat Certified by Bitnami” – the one labelled as free tier eligible.

#### **2. Develop a Student Survey form to allow a user to enter the survey data. In particular, the student survey form contains the following:**

- Text boxes for first name, last name, street address, city, state, zip, telephone number, e-mail, and date of survey, which are required fields.
- 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.
- Radio buttons that allow the prospective students to indicate how they became interested in the university. Options should include: friends, television, Internet, and other.

- A 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.
- An additional text box called Raffle. The user will be asked to enter at least ten comma separated numbers ranging from 1 through 100 in the Raffle field. This information will be used to announce whether the student wins a free movie ticket.
- A text area for additional comments, and
- Submit and cancel buttons

### **Submission – Part1**

The submission for this assignment should be through the blackboard. Please provide the AWS URL of your website as part of the submission. Please note that a late assignment carries a 10% late penalty for each week it is late. Assignments are NOT accepted after being 2 weeks late.

### **Submission – Part2**

The submission for this assignment should be through the blackboard website. I expect a zipped package containing the source files, war file, and any additional packages, scripts, or files that you used. I also require a readme file which contains installation and set up instructions so that the TA and myself can deploy and run the assignment. I also expect AWS URL of your homepage as part of readme file. Submit all source, and war file, files necessary to run the application and the installation and execution instructions. Please put all of the files in a zip file. If you submit an assignment late (i.e., not submitted on due date) the late penalty will apply. Please add the link of your application to your website on Amazon S3, that you created in the Part1 section of this assignment. Also, provide URL of your homepage as well as of the application deployed on EC2 in readme file as part of your HW submission on the class blackboard.

NOTE: A late assignment carries a 10% late penalty for each week it is late. Assignments are NOT accepted after being 2 weeks late. Make sure your name is on every programming artifacts so we know who it belongs to. For every source file, please include comments at the top of the program describing what the program does. This only needs to be 1 or 2 sentences. Be sure to test access and functionality to your submission before the due date.

### **Grading:**

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

- Does system meet the functional requirements: 85 Points
- Does the assignment run without errors: 15 Points

### **Instant Point Deductions:**

I reserve the right to deduct points instantly for the following reasons:

- The source, or binary, files are not included in the package.
- The readme file is not included in the package.
- The program doesn't run due to errors in the code.
- I can't figure out how to use the assignment, and instructions are left out.