COMP229– Web Application Development

Assignment 1

Express Portfolio Site

Due: Week 4 (Friday September 30, 2022) @ midnight

Value 15%

Express Portfolio Site **Maximum Mark: 100**

Overview: Create your Personal Portfolio Website using **ExpressJS** and implementing the **EJS templating engine**. Your site must be hosted live on a cloud service such as **Microsoft Azure**, **Heroku,** or **Digital Ocean**.

Instructions:

This Express site must include the pages from your Personal Portfolio 5 pages – your **Home page**, an **About Me** page, a **Projects page**, a **Services page**, and a **Contact Me** page.

1. You Site must include the appropriate content for a **Personal Portfolio (17 Marks: Content)**
   a. You must include a **Navigation Bar** or other Navigation scheme that allows the user to view each page of your site. (2 Marks: Content).
   b. You must include a **Custom Logo** for your site, this should be placed in or around the main Navigation bar. The **Custom Logo** can be as simple or artistic as you desire (e.g. you could use a primitive colour-filled shape like a triangle or hexagon with your initials positioned inside). Please do not use a logo that belongs to another company or person. (2 Marks: Content).
   c. Your **Home Page** should include some sort of welcome message and link or button that allows the user to redirect to your About Me Page and / or other pages. I recommend also including some sort of **Mission Statement** (2 Marks: Content).
   d. Your **About Me Page** should include your legal name, an image of you (I recommend a head and shoulders shot), a short paragraph about who you are. Keep this clean and simple as it may be viewed by perspective employers. (1 Mark: Content)
   e. Your **About Me page** should include a link to a PDF version of your Resume (1 Mark: Content).
   f. Your **Projects Page** should include images and information for at least 3 Projects you wish to highlight. These could be current projects you are working on or past projects you have completed. Include an image for each Project and a short description of your role and the outcome. (2 Marks: Content).

g. Your **Services Page** should include a short list of services you offer (e.g. general programming, web development, mobile apps, etc.). I recommend including images that make this more appealing to view. (2 Marks: Content).

h. Your **Contact Page** should include your contact information in a panel or other construct. (1 Mark: Content).

i. Your **Contact Page** should include a short interactive form that allows the user send you a message and provide basic contact information (First Name, Last Name, Contact Number, Email Address, Message, etc.). This form does not have to be fully functional initially. However, it should be able to capture the information entered by the user and redirect them back to the Home Page (4 Marks: Content).

2. Your Portfolio site will use **ExpressJS** and **NodeJS** and your web pages have been split to use different **View templates** and partials by implementing the **EJS templating engine** and Express Routes **(8 Marks: GUI, 26 Marks: Functionality):**

   a. Your site should include at least 2 View templates – one for your **Home Page** and one for your **Contact Me** page. **Note**: You may include additional templates as needed to accommodate other site pages (13 Marks: Functionality, 8 Marks: GUI).

   b. An Express Route must exist for each page of your site. **Note**: You will need to use the **router.get(path, callback(req, res, next))** method structure with a **res.render(view, locals)** method call to render each view (13 Marks: Functionality).

3. Your site will use the new structure created by the **Express Generator**. Your site files will be migrated to work within the **public**, **routes** and **views** folders **(26 Marks: Site Structure):**

   a. Generate your site structure with the Express Generator. **Note**: You must use the **-e** option to ensure that you implement the **EJS templating engine** for Express (9 Marks: Site Structure).

   b. Your **JavaScript**, **CSS and Multimedia Asset Files** should be moved to separate folders within the **public** folder. Using the Twitter Bootstrap CSS framework is strongly recommended, though not required. **Note:** the **public** folder is part of the path and does not have to be referenced (6 Marks: Site Structure).

   c. You will define routes for all of your site pages in the **index.js** file in your **routes** folder (2 Mark: Site Structure).

   d. Your **view**s folder will contain your **EJS page templates**. You will create a separate folder named **partials** for all of your partial **EJS files**. You will need several partials including **header.ejs**, **content.ejs**, **footer.ejs** and others. (6 Marks: Site Structure).

   e. All Your Code (HTML, CSS, JavaScript, jQuery, etc.) is error free (3 Marks: Site Structure).

4. Include **Internal Documentation** for your site **(5 Marks: Internal Documentation):**

   a. Ensure you include a **comment header** for your **CSS and JavaScript files** that indicate: the **File name**, **Student's Name**, **StudentID, and Date,** (2 Marks: Internal Documentation).

   b. Ensure you include a **section headers** for all of your **HTML structure, CSS style sections,** and any **JavaScript functions** (1 Marks: Internal Documentation)

   c. Ensure all your code uses **contextual variable names** that help make the files human-readable (1 Marks: Internal Documentation).

d. Ensure you include **inline comments** that describe your GUI Design and Functionality. **Note:** Please avoid "over-commenting" (1 Marks: Internal Documentation)

5. Share your files on **GitHub** to demonstrate Version Control Best Practices and push your site to a cloud host **(4 Marks: Version Control, 4 Marks: Cloud Hosting).**
   a. Your repository must include **your code** and be well structured (2 Marks: Version Control).
   b. Your repository must include **commits** that demonstrate the project being updated at different stages of development – each time a major change is implemented (2 Marks: Version Control).
   c. You must deploy your site to your Cloud Server using **git** (4 Marks: Cloud Hosting).

6. Create a Short Video presentation on **YouTube** or another streaming provider. You must include a short **PowerPoint** (or Google Slides) Slide Deck that includes a **single slide** to start your video (10 Marks: Video)
   a. The **first** (and only) **Slide** of your Slide Deck must include a **current image** of you (no avatars allowed) that is displayed appropriately on the page. You must also include your **Full Name**, **Student ID**, the **Course Code**, **Course Name,** and your **Assignment** information. (2 Marks: video)
   b. You will **demonstrate** your site's functionality. You must show each page working properly (2 Marks: Video)
   c. You will **describe** the code in your app.js file that drives the functionality of your site (2 Marks Video).
   d. Sound for your Video must at an appropriate level so that your voice may be **clearly heard,** and your screen resolution should be set so that your code and site details are **clearly visible** (2 Marks: Video).
   e. Your Short Video should run no more than 5 minutes (2 Marks: Video).

SUBMITTING YOUR WORK

Your submission should include:
1. A zip archive of your website's Project files
2. A link to GitHub (preferable).
3. A link to your live portfolio site hosted with a Cloud provider

Evaluation Criteria

Feature	Description	Marks
Content	Appropriate Content is added to each page of your portfolio site	17
GUI / Interface Design	Display elements meet requirements. Appropriate spacing, graphics, colour, and typography used.	8
Functionality	Site deliverables are me and site functions are met. No errors, including submission of user inputs.	26
Site Structure	Well organized site files. Separate HTML and CSS. Appropriate links to external documents and code. Code is error free. JavaScript libraries use a CDN. 4 marks for initial deployment to Cloud Host	26
Internal Documentation	File header present, including site & student name & description. Functions and classes include headers describing functionality & scope. Inline comments and descriptive variable names included.	5
Version Control	GitHub commit history demonstrating regular updates. 2 marks for initial commit	4
Cloud Deployment	Deploy site to Cloud Service. 2 marks for initial deployment	4
Video Presentation	Your short video must demonstrate your site and describe your code	10
Total		**100**

This assignment is weighted **15%** of your total mark for this course.

Late submissions: •
   20% deducted for each day late.

External code (e.g. from the internet or other sources) can be used for student submissions within the following parameters:

1. The code source (i.e. where you got the code and who wrote it) must be cited in your internal documentation.
2. It encompasses a maximum of 10% of your code (any more will be considered cheating).
3. You must understand any code you use and include documentation (comments) around the code that explains its function.
4. You must get written approval from me via email.