**IFT 485 / 544: Middle Programming and Database Security**

Harshal Arun Yeole

Section: C

Department of Information Technology, Arizona State University

Module 2 Assignment : Exploring JavaScript Topics with EJS, Node.js, and Express

Professor: Dinesh Sthapit

Due: Sunday Sept 3

**Installation and Setup**

**Visual Studio Code Installation**

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**Node and npm version:**

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**Express installation:**

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**EJS Installation:**

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**Project Setup and express server:**

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**Exercise 1: Variable:**

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**Index file:**

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**Result file:**

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**After Running the application:**

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**Browser Code:**

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**GitHub:**

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**Initializing git repo:**

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**Added and committed files:**

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**Pushed the changes:**

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**Repository:** <https://github.com/harshalyeole/IFT544-M2A.git>

**.ejs Code Analysis:**

JavaScript code is contained within % and%> tags and is found in the.ejs file. This JavaScript code is in charge of creating dynamic HTML content from data and logic. The.ejs code's embedded control structures, such as loops (% for%>) and conditionals (% if%>), affect the HTML output. The values of variables used in the HTML text are displayed using the %= variableName%> syntax. The syntax for variable output in EJS is %=%, and code execution inside the template is %%.

**HTML Code Analysis:**

Examining the displayed HTML reveals that it contains content produced by the JavaScript script found in the corresponding.ejs file. Any changes between the two can be found by comparing the rendered HTML and the.ejs code. Any alterations made to the original.ejs code are faithfully represented in the outputted HTML.

.ejs code comparison and contrast with generated HTML

The dynamic JavaScript parts in the.ejs code are contained in %%> tags, producing varied HTML output. The results of these dynamic portions are shown as static material in browser-rendered HTML, however.

**Observations and Differences:**

The.ejs code appears more dynamic with embedded logic as compared to HTML that has been displayed by a browser. The final material is displayed in browser-rendered HTML, not the dynamic code portions.

The use of.ejs templates streamlines real-time data rendering by enabling the creation of dynamic content by integrating JavaScript within HTML. This strategy avoids redundancy in data display, maintains consistency, and improves code reusability.

Situations for Using the.ejs Template:

Live Dashboards: .ejs templates are useful for real-time dashboards that dynamically update data without requiring a page reload.

User profiles: When displaying stuff that is specific to a user.Pages can be customized using stored data and ejs templates.

E-commerce Listings: For e-commerce websites,.ejs templates effectively manage rapidly changing product listings.

Forms that modify based on user input or other circumstances can be created interactively using.ejs templates.

Data Visualization: To display changing data trends,.ejs templates can be used to produce dynamic charts or graphs.

Notifications:.ejs templates can provide dynamic notifications without the need for additional HTML files.

material Aggregation:.ejs templates can be used to generate uniform layouts for websites that aggregate material from different sources.

Dashboards that are specifically tailored to the needs of the user can be made by developers using.ejs templates.