E-COMMERCE

420-411-VA

ASSIGNMENT-1-PART-3

For this assignment you will practice implementing the Model View Controller (MVC) pattern and related concepts..

For the parts that require code implementation, write the code in specific php files and submit the files as a compressed file with this document.

This assignment is an individual work.

You need to demo your submission in class.

1. Describe what ORM is:

Object-relational mapping is a programming technique used to convert data from a relational database to data used for an object-oriented program. It is done by creating a virtual database object on the programming language. It is like a bridge between a relational database and an object-oriented program. It is not a plugin; it is rather a technique that is implemented through object-oriented programming.

2. Describe what MVC is:

MVC is a design pattern that organizes logic in 3 main parts: Model, View and Controller. It is used in object oriented programming to organize code and make code cleaner and more understandable. Model is for data logic, View is for data presentation and the Controller is what displays the data to the end-user.

3. Describe how the client specifies which resource is the subject of a request:

The client specifies which resource is the subject of a request using the URL of the resource. For example: A client requests a resource using HTTP GET method and specifies that the resource to use is “http://localhost/app/controller/example.php”

4. Describe how does the client specify which resource and which CRUD action needs to be done on the resource:

First, we specify the resource by specifying the URL of resource for example “http://localhost/app/assignment3.php”. Then, to specify the CRUD operation, we specify the HTTP method to use, GET (Read), POST (Create), PUT/PATCH (Update) or DELETE (Delete)

5. Explain why we use spl_autoload_register:

Spl_autoload_register is used to automatically load class files when needed. In the MVC context, this helps load the required files without having to manually include/require each file. It makes sure that the

classes are loaded only when needed. It also makes code cleaner.

6. Explain whether we are using a single access point or not when making requests in the MVC implementation:

We are using single access point since all requests are handled through one file/access-point which is in this case “index.php”.

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8. Describe what architecture does the MVC implementation used in this course comply with:

This MVC implementation complies with the Resource Oriented Architecture. This architecture is the flow of data where we specify the resource first, then the action to be done and finally the service.

9. List the steps followed and describe each step when loading a list of employees on a web page using the MVC implementation:

    - The answer should describe the involvement of the URL, HTTP request, HTTP response, and all other elements that are used.

1. The client requests the employee list through its resource URL for example “http://localhost/app/employee.php”
2. The browser sends an HTTP Request where it requests the specified resource from the HTTP server.
3. The server requests the resource and it resource is fetched through the GET HTTP method.
4. The controller takes the data containing the list through a “read” function and then takes that data from the read function into the EmployeeView class to render the data.
5. The server then sends an HTTP response with the corresponding HTML page which should display the list of employees.

10. Implement a web page with a form that allows a user to create an employee, and insert the corresponding record in the database, using the MVC implementation done class.
    - Test your implementation
    - Submit the PHP files.
    - Demo your implementation.