## **Machine Test Question**



**Title:** Container Management System

**Description**: The objective is to develop a Secure Container Management System that allows authenticated users to manage and track container shipments, and handle PDF file uploads related to container documentation. Ensure that the file upload functionality enforces a maximum file size of 5 MB and only accepts PDF files. Implement authentication and authorization to control access to the application.

## Requirements:

- 1. Create a new ASP.NET Core MVC project with user authentication and authorization.
- 2. Implement login functionality using ASP.NET Core Identity or a similar authentication framework.
- 3. Set up a connection to an Oracle database to store container information, including details such as container numbers, shipment dates, origins, destinations, and status.
- 4. Design a model for container data and ensure that it includes the necessary fields:
  - o Container ID (auto-generated)
  - Container Number
  - Shipment Date
  - Origin Port
  - Destination Port
  - Status (e.g., In Transit, At Dock, Delivered)
  - File Upload (for container documentation)
- 5. Create a page to add new container details to the system. This page should include a form with fields for the container's information and the ability to upload a PDF file as their container documentation.
- 6. Implement server-side validation to ensure that all required fields are filled out correctly when adding a new container.
- 7. Implement file upload functionality, allowing the user to select and upload a PDF file with a maximum size of 5 MB. Save the uploaded file to a folder on the server, and store the file path in the database.
- 8. Create a page to view a list of containers with their basic information and a link to download their associated container documentation.

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- 9. Implement a dashboard that displays a list of containers, like a tracking system. The dashboard should allow authenticated users to:
  - View container details.
  - o Filter containers by status.
- 10. Implement a jQuery-based filtering mechanism that allows users to filter containers by status on the dashboard without reloading the page.
- 11. Create a navigation menu for easy access to the dashboard, and container management features.
- 12. Implement error handling and validation for file uploads, ensuring that only PDF files are accepted and handling any potential errors gracefully.
- 13. Implement proper error handling and validation throughout the application.
- 14. Use proper coding practices and conventions, including separation of concerns and proper error handling.