1/ Latest project là gì? Công nghệ mình dùng

It’s Restaurant management system it’s webapp using ASP NET core and WCF service. RMS help restaurant managers and staff manage their restaurant business like product, menu, import/export, order management, statistic diagram reports.

Customers can book table and select item on the menu to order and do payment included cash and online payment

2/ MVC là gì?

ASP NET CORE - Model View Controller

**Model** aka the component that have **all related data logic that user work with** like a Model of User Account class will have username, password, email,….

**View** is **User Interface logic** of the application aka **Front-end** like text box, dropdown, date time picker, buttons, etc…

**Controller** act as **interface between Model and View** (Back end and Front end).

Controller process all the business logic and incoming requests, manipulate data using the Model component and interact with the Views to render the final output

**ASP.NET MVC**

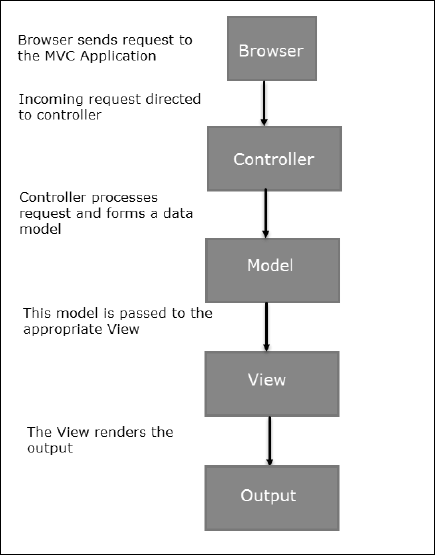
**ASP.NET supports** three major development models: **Web Pages, Web Forms and MVC (Model View Controller**). ASP.NET MVC framework is a lightweight, highly testable presentation framework that is integrated with the existing ASP.NET features, such as master pages, authentication, etc. Within .NET, this framework is defined in the System.Web.Mvc assembly. The latest version of the MVC Framework is 5.0. We use Visual Studio to create ASP.NET MVC applications which can be added as a template in Visual Studio.

3/ Latest project mình làm BE hay FE hay cả hai

Both Back end with ASP .NET core, SQL Server, Front end with AngularJS4/ Mình có biết về API ko và type of API mình xài là gì?

Application Programming Interface (literally provide a way to communicate for two or more computers with each others like Server and Client or component to communicate with each other or Front end with Back end.

wcf hay web service hay RestfulAPI5/ Architect của cái api là gì?Ví dụ có 1 trang web, có 1 cái text box, 1 cái button "submit"Khi user type vô cái text box và nhấn nút submit thì flow nó như thề nào để save xuống Databasetheo mô hình MVC



MVC Flow Diagram

**Flow Steps**

Step 1 − The **client** browser **sends request** to the MVC Application.

Step 2 − **Global.ascx receives this request** and **performs routing** based on the URL of the incoming request using the RouteTable, RouteData, UrlRoutingModule and MvcRouteHandler objects.

Step 3 − This **routing operation calls the appropriate controller** **and executes it** using the **IControllerFactory object and MvcHandler** object's Execute method.

Step 4 − The **Controller processes the data using Model** and invokes the appropriate method using ControllerActionInvoker object

Step 5 − The **processed Model** is then **passed** to the **View**, which in turn **renders the final output**.

Winform  
architecture: Presentation layer (Winform)

Business logic WCF Service

Data layer WCF Service

6/ Trong project mình đã làm mình dùng cách nào để authenticate7/ Phân biệt authenticate và authorize

Authenticate is to check if Login info of that user match with login info in the database if pass then authenticate successfully

Authorize is to check the user that logged in have the appropriate permission to access that page or that functions or not. If yes then load the data with HTTP status 200 if not then denied permission.

Identity server for Identification Authentication and secure API

8/ Nếu mình xài jwt thì cách hoạt động nó như thế nào9/ Mình deploy api lên đâu=> câu này anh hiểu bên Java thì mình có thể sử dụng mấy cái như jboss, tomcat, jeetty, ...trên .NET anh hiểu là mình deploy lên IISdeployments to Internet Information Services (IIS) with configuration provided by the web.config file

Deploy to IIS10/ Mình có biết về entity fwk ko?mình biết về file .edmx ko?

Entity Framework is library allow Winform app work with database by pass data from textbox, dateTime pickers… and map it to Entity model and App.config file with send the request to modify data in DB11/ Giả sử giờ mình đã có entity, giờ mình muốn thêm 1 attribute , tương ứng với việc mình thêm 1 cột trong Table trong Databaselàm thế nào để mình update => Theo anh biết mình chỉ cần vô file .cs định nghĩa thêm cái attribute đó cho entity cần update, vào file migration update thêm và chạy migration script là dcDefine the new attribute for that entity in entity.cs file then go into migration update add and run migration script

12/ Client site validation trên mô hình MVC mình làm như thế nàoIcon hỏi nếu ko dùng thì dùng javascript thuần như thế nào13/ Trong latest project mình work trên maintenance project hay là chỉ làm new feature thôi

RMS: new feature and maintenance

Pharmacy: maintenance

14/ Icon hỏi là project đó mình join ngay từ đầu hay là có ai đó làm trước

Both RMS and Pharmacy joined from the start

NMS take on the role of predecessor15/ DBMS mình đã từng work, mình có biết Oracle ko?

Used to work with SQl Server, MySQL, MongoDB, MariaDB,

Briefly know about Oracle=====================================================1/ Nêu cách generate token (JWT)2/ Sau khi có được token (JWT) thì bên endpoint làm sao để validate cái token này?3/ Handle exception in API  
Use try catch block and implement global exception handling  
Or

use lock donet support for testing

4/ Làm thế nào để tạo object cho Interface (hỏi về OOP C#)5/ How to audit all Transaction?6/ Business of latest project?7/ Câu hỏi về DB: Trigger, Procedure là gì? Các câu lệnh SQL (LEFTOUTER JOIN)8/ Có biết gì về Azure, Oracle ko?9/ Ví dụ về cách troubleshooting=====================================================1/ Làm thế nào để join mấy table trong entity framework

Select table want to join give keyword to table to distinguish two same keys between two tables then type JOIN, OUTTERJOIN, LEFTJOIN commands depend on the situation to join between tables

2/ Post back là gì, làm thế nào để reuse data trong lần post back thứ 23/ TempData là gì4/ Làm thế nào để refresh page partially thay vì tất cả component======================================================1/ Tả sơ lược về kinh nghiệm của mình2/ Có dùng Abstract trong project hay không?3/ Lợi ích của việc implement nhiều Interface4/ ViewData là gì? TempData là gì?5/ Khác nhau giữa ViewData and TempData6/ Có học front end vs Oracle đc không?1. Introduce your-self?2. Introduce the recent project that you worked on?3. Have you created a user control or customer control or have you working on something like that.Yes I do create Custom control for making interfaces, form like User Registration form  
Custom control is a re-usable group of existing controls it easy to create and good for re-use

User control is a control that you create from scratch that also contain components like text box, button, label but since it not inherit from Control class it can only be use internally in 1 project

To create Custom Control first create new Class that inherit Control class then custom appearance, behaviors like method, color. After that use can re-use custom control how ever you need in many projects just by import the DLL library

|  |  |  |
| --- | --- | --- |
| **Characteristics** | **User Controls** | **Custom Controls** |
| Creation | It is easy to create | It is not easy to create |
| Toolbox | User Controls cannot have toolboxes added to them. | Custom Controls can include a Toolbox. |
| Layout | It is a static layout | It is a Dynamic layout |
| Usability | It only takes one copy to use it in multiple projects or applications. | Individual copies are needed for each project or application. |
| Flexibility | There is less user control flexibility. | Custom control flexibility is more |
| Coupled | It is tightly coupled. | It is loosely coupled. |
| User Interface | The user interface is fixed and cannot be altered. | The Custom Controls interface will be changed. |

4. What kind of user control you have developed and what is the purpose of it.  
Purposed of designing : Design UI to customize the interface that dev want to.  
How do you pass the login information when click Login button that require input Username and Password from Login form to Main Page

You change the default Constructor of MainPage to allow input Username , password of UserModel

Then in LoginForm code pass in String Username and password

5. what kind of the DB did you use and how do you connect to the DB from the window form or .NET application? myswl server - entity framework ->   
Connection String then use using key with SqlConnection(command, sqlConnection)….

6. Which library did you use to connect to the DB in .NET?  
Store procedure for complex tasks need to insert or modify DB. Procedure help in reuse

In line for simple tasks that not need to re-use

Library for DB connection .NET: System.Data.SqlClient

7. For example,I have a table customer and you know I have to get the data from DB and then I should display my winfrom screen. what is the stuffs you follow to get the data from the DB?8. Any best practice did you use in the miscrosoft site? any application log or something, did you use any thing like that?9. Did you work on any design parten? best approach, best practice in your projects?

Currently I’m using Abstract Factory for my RMS project to create abstract interface like User, Order, Store, Product, Menu

10. ... so what is the repository right now?11. But from repository did you use any pattern or any best practices did you follow?12. Why did you go for singleton pattern, what is the purpose of it?13. How do you make sure that only one instance is created in your application?14. what is the control you use in wwindownfrom, I mean the general winform control what kind of the control did you use? did you use all the control or what is the control that you familier with?How do you design the form, what kind of the control for mainly setting up the layout or everything right? - "table layout panel"15. Apart from panel, do you know any other layout control? data read view ->16. How many year experience do you have?17. Was that for the ICON or other client?18. what is the best practice to ensure your code is maintanable?

Write comment lines to notes and explain

Versioning your docker images

Indent code lines properly

19. When you are assigned the code how do yo ensure your codes are meet all the criterias and so it does not break any existing functions?20. What is unit testinng stratergy that you use? did you use any unit testing framework? to cover the unit testing automation?

Black box, White box Boundary, C# unit test

21. Any technologies that do you aware of like angular, tect that have you explored apart from .NET, 22. What DB did you use in your last project?23. Have you hear about solid princible in C#, could you explain about it?

SOLID

Parent class like Animal then I have Bird class inherit from parent class so it Animal class is abstract class 24. can you explain about, open-close princible?25. Where do you apply open and close princible, how do you ensure your application follow this princible?26. what is the generic in C#, have you use any generic?27. Have you use any dictionary and list?28. what is the virtual class? what is the "virtual" actually?29. From where you override?30. What is the private contractor in C#?31. How you hear about WCF?

WCF stand for Window Common Foundation it usage to unified all connection method for browser

32. What is the difference betwen continute and break?33. We have table, containt project detail, can you wwrite a query to pick the top 3 price product?DSC34. Have you writent store procedure? which one is more preformance, store procedure or SQL inline query, which one did you use in your projects?35. In your last project with windowfrom, how do you do your deployment? how does it get to relesae to the end user?36. How do you maintaince the source code? Team foundation serrver, have you ever working on the TFS?37. What are you do in the DB site genrally? what are the part did you work in the DB?\* Dependency Injection: literally import DLL library files to your project or Nu packet manager to install more library

**WCF**: are service to handle logic between service and controller, WCF provide endpoints

**Link queue**: is language to help dev write easier queries in many like DB, XMl, ….etc.

**WCF Service**: provide web service for other controller, View can interact with like Windowform, Front-end app

**Migration**:

Migration will based on Model classes

To start Migrating in nu console: add-migration script-name

Then update-database script-name

**Transaction**

To make ensure no error on update data use @Transaction

You are giving large complex procedures I want you to optimize query to improve performance?

Can use Index, limit select column, select distinct

ADO.NET faster than Entity framework

**improve entity framework performance by customize model and only take necessary attributes needed when do Entity framework hibernate query**

**Eager load: include all join table**

**Lazy load: only take necessary attributes**

**Custom control**

**Create custom control:**

**Create user control and components like table data grid, label to wrap it**

**query database will get list of object**

**dataGridview dgv = new**

**dgv.Source = data from database**

**Dependency injection**

**abstract vs interface**

**Unit testing, NUnit C#**

**Store Procedure**

**Function**

**c**

**View**

**LeftJoin**

**Log4Net => lưu log**

**Unit testing, NUnit**

**Generic**

**<T>**