

intrum

This test is intended for different levels of developers including seniors. Please, do your best abilities

Software Developer Test

1. What is the difference between interface and abstract class?

2. Is it possible to split class into two source files in the same assembly?

3. What is difference between internal, protected, private, public accessibility levels?

Public -

Private -

Protected -

Internal -


4. What type of interface should a class implement for using within "foreach" block?

5. What type of interface should a class implement for using within "using" block?

6. What is the difference between override and overloaded?


7. What "async" and "await" keywords are used for?

8. Please write a SQL query, which selects invoice with invoice details by id equal 35.

Invoice	
	Id
	Ref
	Amount
	Quantity



FK_InvoiceDetails_

InvoiceDetail	
	Id
	Invoice_Id
	Item_Id
	Amount
	Quantity

This sample refers to 6 questions below.

```
<div id="div1">
  Please enter a value
  <input id="requestValue" />
  <input type="button" onclick="RequestData()" value="Submit"/>
</div>

<div id="ajaxDiv">

</div>

<div id="div3">
  Please enter copy right
  <input name="CopyRightInput" />
</div>
```

11. Please write CSS style, that applies background color (any) to all div elements.

12. Please write a style, that applies width 300px for input with name "CopyRightInput".

13. Please write a jQuery that applies class "defaultBackground" to all div elements.

14. You need to complete function "RequestData" for submit button. Response should be placed in "ajaxDiv", requestValue value from input "requestValue" should be passed to controller. Controller is defined as follow:

```

public class HomeController : Controller
{
    [HttpGet]
    public ActionResult RequestValueSample(int requestValue)
    {
        return View(requestValue);
    }
}

```

```

<script type="text/javascript">
    function RequestData() {
        var requestValue = .....;
        $.ajax({
            type: .....,
            url: .....,
            data: .....,
            success: function (html) {
                .....;
            }
        });
    }
</script>

```

15. Please write a jQuery to select an input with attribute name equal to "CopyRightInput"

16. What is difference between MVC controller and Web API controller?

17. When you type "return View()" how does it know which view to return?

18. What is routing in MVC?

19. How can we restrict MVC actions to be invoked only by GET or POST?

20. How can we do validation in MVC?

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21. What is the difference between authentication and authorization?

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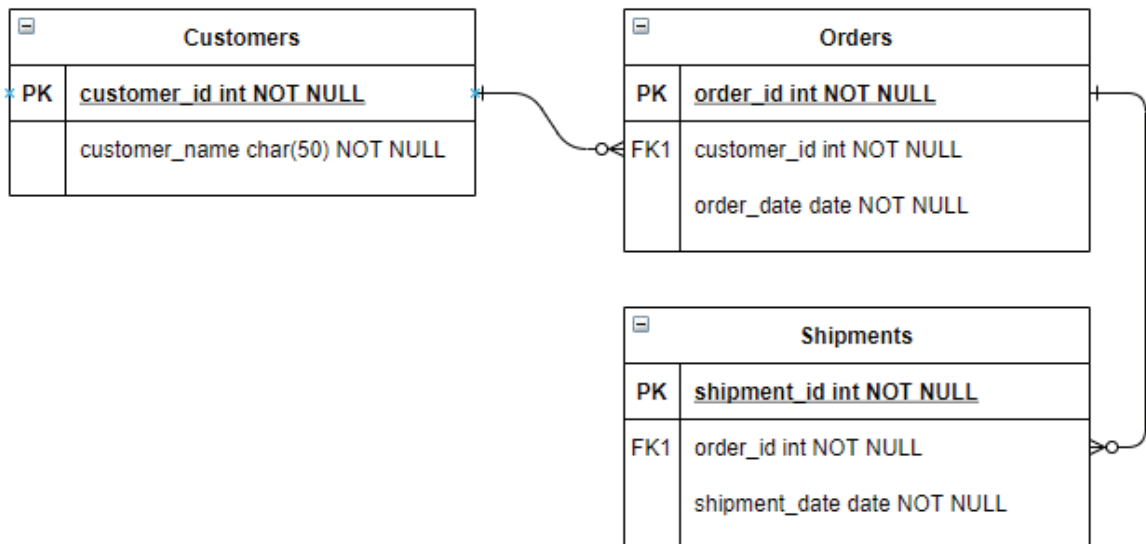
C#

// Please implement interface ICashMachine. Cash machine accepts/withdraws only 5, 10, 20, 50, 100 banknotes.
// Please write some unit tests if possible.

```
public interface ICashMachine
{
    int Withdraw(int amount);
    void Insert(int[] cash);
}
```

SQL

Please write a query which deletes all Shipments before 2021-01-01 and customer name is John Doe



VUE (optional - nice to have)

Write a VUE 3 component which shows digital clock. Composition API is preferred.