

Nice — I went through your photos and turned your numbered notes into clear questions + concise answers (with a one-line explanation where helpful). I filled in unclear bits with

Q → A (numbered as in your notes)

- Q:** Group of integers which are constant
A: `enum` — an enumeration groups named constant values.
- Q:** Non-key attributes (columns) are dependent — which normal form is violated?
A: **2NF** if a non-key attribute depends on part of a composite key; **3NF** if there is a *transitive* dependency (non-key → non-key).
(Short: *partial dependency* → 2NF violation; *transitive dependency* → 3NF violation.)
- Q:** large, larger, small — (CSS) font size?
A: Use CSS classes with `font-size` (e.g. `.large { font-size: 24px; }`) or Bootstrap utility classes (`.fs-1`, `.fs-2`, etc.).
- Q:** `Set @num = 1 / Go / Select @num` — what happens?
A: In T-SQL: `SET @num = 1`; assigns a variable; `GO` is a batch separator (not a T-SQL statement). After `GO` the variable scope is lost, so `SELECT @num` after a `GO` will be `NULL` / error unless declared again in the same batch.
- Q:** Regular expression for a word boundary
A: `\b` matches a word boundary; use `\w+` for a whole word. Example: `\bword\b`.
- Q:** SQL `LIKE` — pattern specifics (second position, 10 and end 8)
A: `LIKE` patterns use `%` (any string) and `_` (single char). To match second char = A and last char = 8 for e.g. 10-char string: use `_A_____8` (or `LIKE '_A%8'` depending).
(General: `_` = one char, `%` = any length.)
- Q:** DML which combines two or more tables
A: `JOIN` (e.g. `INNER JOIN`, `LEFT JOIN`, etc.) — joins combine rows from multiple tables.
- Q:** XML serialization — what is true?
A: XML serialization typically requires a parameterless (default) constructor for some serializers (`XmlSerializer` uses public parameterless constructor for deserialization) and produces human-readable XML.

9. **Q:** Binary serialization — differences vs XML
A: Binary serialization produces compact, non-readable output and can be faster and smaller than XML; it may also preserve object graphs/refs depending on the serializer.
10. **Q:** Tags valid inside `<head>`
A: Examples: `<title>`, `<meta>`, `<link>`, `<script>` (when appropriate), `<style>`.
11. **Q:** Add element, change it and remove it completely — (Angular) structural directive?
A: Structural directives (e.g. `*ngIf`, `*ngFor`) change the DOM structure (add/remove elements). Attribute directives change appearance/behavior.
12. **Q:** What class for big buttons (Bootstrap)
A: `btn btn-lg` (Bootstrap class `btn-lg` makes a large button).
13. **Q:** CSS framework for responsive design
A: **Bootstrap** (popular responsive framework); others: Tailwind, Foundation.
14. **Q:** Which will help to have footer in all pages of app (ASP.NET MVC)
A: Use a **Layout Page** (e.g. `_Layout.cshtml`) or a **Partial View** that's included in the layout.
15. **Q:** Example: `<section>` → CSS `color: yellow`?
A: Apply CSS to the `<section>` selector, e.g. `section { color: yellow; }` — or use a class: `<section class="yellow">`.
16. **Q:** SQL: Multiple select from employee and history — which set operator?
A: If you want rows common to both: `INTERSECT`. (Other set ops: `UNION`, `EXCEPT`.)
17. **Q:** Which determines max length of a text box?
A: `MaxLength` (in HTML it's `maxlength` attribute; in WinForms/WPF/ASP.NET there's `MaxLength/MaxLength` property).
18. **Q:** Which displays all views and models?
A: In MVC the **Views** folder contains views; tools like Visual Studio's Solution Explorer show Views and Models. (If question meant "what lists all views/models" — use project explorer or scaffolders.)
19. **Q:** Serialization (last option) — prevent developers and more? (unclear)
A: Possible interpretation: to **prevent** serialization of a member mark it `[NonSerialized]` (binary) or `[XmlIgnore]` (XML). For JSON use `[JsonIgnore]`. Also use options to preserve references or not.
20. **Q:** Creational patterns
A: **Builder**, **Factory** (Factory Method, Abstract Factory), Singleton, Prototype are creational patterns.
21. **Q:** For selecting color input statement (HTML)
A: `<input type="color" />`
22. **Q:** What is true about `finally`? (break/return)
A: The `finally` block **always executes** after `try/catch`, even if

the `try` contains `return`, `break`, or `throw`. Note: `finally` runs even when `return` executed in `try`, but if `Environment.FailFast` or `process/thread` is terminated it may not run.

23. **Q:** Multiple inputs — parameterized test

A: Unit testing frameworks support parameterized tests (e.g. NUnit [`TestCase`], MSTest [`DataRow`], xUnit [`Theory`] + [`InlineData`]) to run the same test with different inputs.

24. **Q:** Database name in connection string

A: `Initial Catalog` (or `Database`) is the connection string key for the DB name.

25. **Q:** Where is it checked if the test passed?

A: `Assert` (unit test `Assert.AreEqual`, `Assert.IsTrue`, etc.)

26. **Q:** Test but not change behaviour — Mock

A: Use a **Mock** (mocking frameworks like Moq) to isolate dependencies without changing production code.

27. **Q:** Center, justify — text alignment

A: CSS property `text-align: center;` or `text-align: justify;`

28. **Q:** To add mp4 + video

A: Use the HTML5 `<video>` tag: `<video src="file.mp4" controls></video>`.

29. **Q:** To add space below `` and inner content — padding?

A: Use padding or margin (e.g. `display:inline-block; margin-bottom:8px;` since `` is inline).

30. **Q:** Code outside .NET is called — unmanaged code

A: **Unmanaged code** (native code). .NET code = managed code.

31. **Q:** If component selector is `my-app`, how do you render in HTML?

A: Use its tag: `<my-app></my-app>` (Angular custom element selector).

32. **Q:** True about subqueries (bullets you wrote)

A: Common truths:

- `ORDER BY` in a subquery is generally meaningless unless used with `TOP` (most DBs ignore order in subqueries unless `top/limit` is used).
- You cannot use `DISTINCT` and `GROUP BY` *together*? (You can use both in same query but they often overlap; likely the note meant `DISTINCT` with `GROUP BY` is redundant.)
- Views created from subqueries (or views in general) may be **not updatable** if they include aggregations, `GROUP BY`, or certain joins — so some views cannot be updated.

33. **Q:** For input field only alphabets and min and max

A: Use a regex pattern like: `pattern="[A-Za-z]{3,10}"` for only letters and min=3 max=10. In HTML: `<input pattern="[A-Za-z]{min,max}">`.

34. **Q:** nested child -> child : @output

A: In Angular: child components emit events via `@Output()` and parent listens

with (childEvent)="handler(\$event)". (So use @Output() in child to send events to parent.)

35. **Q:** Type casting — as

A: In C# use as for safe reference/type casting (obj as MyType returns null if incompatible). You can also use explicit cast (MyType)obj.

36. **Q:** What is true about delegates

A: Delegates are multicast — you can **chain** delegates (combine invocation lists). They are type-safe function pointers.

37. **Q:** Without changing code if you want methods — Extension method

A: Use **extension methods** (static method in static class with this on first param) to add methods to existing types without modifying them.

38. **Q:** Install all the dependencies — dotnet restore

A: dotnet restore restores NuGet packages (dependencies).

39. — blank / no question.