**C#, .NET**

1. Delegate

2. Explain Func delegate.

3. Explain Action delegate.

4. Explain Predicate delegate.

5. OOPS

6. Polymorphism by Code

7. Encapsulation by Code

8. How would you handle if anything failed while querying our db?

9. Latest Version of c#.

10. Latest Version of .Net

11. What is extension method, write code?

12. Working of CLR?

13. Generics

14. Explain garbage collection in .NET.

15. Difference between Dispose () and Finalize ()?

16. Difference between throw and throw ex?

17. Can we override Private Virtual method?

18. Difference between ref and out keywords?

19. Difference between const and readonly?

20. What is IEnumerable and IEnumerator?

21. What is sealed keyword?

22. Difference between is and as keyword?

23. Explain Singleton and factory design pattern.

24. Difference between Task and Thread?

25.

**Web API:**

1. What is Attribute in Web API?
2. REST vs Web API
3. Which type authentication you have done in web API?
4. What is claims in web API?
5. How Web API bootstraps?
6. How to authorize all the API (At App level)?
7. What are HTTP Handlers?
8. How to return different type of models from an action method of a Controller?
9. How dbResult converts to C# model and how C# models converts to JSON while responding?
10. If column is changed in db than how mapping will work?
11. Workers in API.
12. IIS and IISExpress
13. Where you host your project and how?
14. 404 code, Unauthorized (), Internal Server Error (500).
15. Hide some API in swagger.
16. How data will be mapping with action parameters?
17. Constraints in Web API.
18. How Web API identify that particular method is not available in controller.
19. Action filter in Web API.
20. Logging in Web API.
21. Global exception handling.
22. New features of ASP.NET Web API?
23. JWT token validation?
24. Authentication vs Authorization?
25. What is Content Negotiation?
26. What are the Media Formatter?
27. Constraints in Web API (Part of Attribute Routing)?
28. How to restrict client to access certain API’s?

**Angular:**

1. We have two observable calls (http calls) I want to merge response of these to calls and continue? How to resolve two observable at same time. (Ans: We can user forkjoin will combine two observable and give the result and merge etc.)
2. How to unsubscribe an observable?
3. How change detection works in angular. And how we can manually trigger change detection (in case we are using third party modules integration so those are outside of angular domain and sometimes change detection won’t work)? Because there are reasons when change detection cycle will not run.
4. Explain ngOnChanges (), ngDocheck () and what is the use of these?
5. For data change we have handlers, two way binding than why we need ngDocheck ()?
6. If a parent component has child component also in that case for parent and child how ngAfterViewInit () lifecycle hook will work or when it will execute for both.
7. What is service worker? (Is it use to provide offline capabilities for API calls only?)
8. Why to use pipe in angular and how can we use it?
9. What is Structural and Attribute directives and how can we use it? Explain what is HostBinding and HostListner? And how we get hold of Dom object or html tag?

And give an example for highlighting paragraph text with attribute directive.

1. How do you access html tag with HostListner and colorize this html tag.
2. What is ViewChild?
3. How can we call child component method from parent component?
4. What is Renderer?
5. Progressive Web Apps (PWA)?
6. What is DOM sanitizer and why to use it?
7. What is Virtual Dom and its use in Angular?
8. What is Shadow Dom and its use in Angular?
9. What is pure pipes and impure pipes?
10. For web Pack – If an update came for 3rd party module and it can impact our application failure than how you will handle it to avoid crash.

**JavaScript, Typescript, ES6:**

1. Write a function which can be called like: printName (fName, lName) and printName (fName) (lName) and print full name.
2. Let var arr = [1,2,3,4,5]

Define a function so we can call:

arr.mul (10)//output should be [10, 20, 30, 40, 50]

1. Difference between promise and Observable?
2. Output:

arr.foreach (item=item+1);

Console.log (arr)//

1. How item is passed in foreach and map function of an array? (as pass by value or reference)
2. Prototypal inheritance?
3. Event loop in JavaScript? Ex: What will be the output?

Console.log (a);

Console.log (b);

SetTimeout (() =>Console.log (a), 1000);

Console.log (d);

1. Improve code to print 1, 2, 3, 4, and 5?

For (let i=1 i<=5; i++) {

SetTimeout (i=>console.log (i), 1000)

}

1. Define an object whose properties (fName, lName) will not be directly exposed to user. Means implement data hiding in JavaScript.
2. Temporary Death Zone?
3. How to create immutable object?
4. Sequence rule for converting values in “==” checking? Which and how the one value will type cast to anther value in order to compare them?
5. Remove duplicate elements from an array. (Create map and splice duplicate element)
6. We have an array of object, remove duplicate array item from following array?

var arr= [{key1:value1}, {key2:value2}, {key1:value2}, {key2:value1},{key1:value1},{key2:value2}]

Duplicate array item: object which has same key and same value

**Node.js, Express.js, Mongo:**

1. Event loop?
2. Node is single threaded than how it handles thousands of requests at a time?
3. Explain non-blocking I/O?
4. How node is event driven?
5. How to protect routes in Express?
6. Token authentication in node?

**SQL:**

**HTML, CSS, Bootstrap:**

**Programs:**

1. You have given two string b and a. you need to find out parent string c of these a and b which is the shortest parent sting. From the parent string we can get both the string by removing some characters without changing the order of the parent. (String problem).

A = abc

B = abd

C = abcd (parent)

1. Deci-Binary number: Given a no, make this no with minimum additions of deci-binary nos.

Ex. 21->10+11

4-> 1+1+1+1