1-What is the return type of function with keyword async?

Its means the function will always return a promise.

2- What are the false values in JS?

null values, undefined values, and the empty string.

3- What is the primitive and nonprimitive data type in JS?

Strings, numbers, bool, null and undefined are primitive data types in JavaScript, whereas anything that is an Object is a non-primitive data type in JavaScript.

4- What is hoisting in JS?

Hoisting is a behavior in JavaScript where variable and function declarations are moved to the top of their containing scope during the compilation phase, before the code is executed. This means that you can use variables and functions before they are declared in the code.

5- What are the differences between var, let, const and which of these hoisted?

Variables declared with const , just like let , are hoisted to the top of their global, local, or block scope – but without a default initialization. var variables, as you've seen earlier, are hoisted with a default value of undefined so they can be accessed before declaration without errors.

6- What are the function types in JS and which of these hoisted?

Function Declarations: Hoisting: Function declarations are hoisted to the top of their containing scope during the compilation phase, allowing you to call the function before its actual placement in the code.

Function Expressions: Hoisting: Function expressions, where a function is assigned to a variable, are also hoisted, but only the variable declaration is hoisted, not the function assignment.

7- JS is sync or async and how it works with async task behind the scenes?

The JavaScript engine works with additional features called Web APIs (setTimeout, setInterval, etc.) in the web browser, which allows JavaScript to behave asynchronously.

8- What is the role of event loop in JS?

executing the code, collecting and processing events, and executing queued sub-tasks.

9- What is the different between == and === in JS?

== compares two variables irrespective of data, a type, while === compares two variables in a strict check, which means it checks for data and returns true or false

10- What is the NAN in JS and what is the type of it?

NaN is a number that is not a legal number. The Number. isNaN() method returns true if the value is NaN , and the type is a Number.

11- What are the scopes and scope chain in JS?

Global Scope and Local Scope and Scope Chain: The scope chain is the hierarchy of scopes in which a variable can be accessed. When a variable is accessed, JavaScript searches for the variable first in the current scope, then in the outer enclosing scope, and so on, until it reaches the global scope.

12- Explain the closures in JS?

A closure is a feature of JavaScript that allows inner functions to access the outer scope of a function. Closure helps in binding a function to its outer boundary and is created automatically whenever a function is created

13- What is the output of the following and explain it?

A black rectangular object with white border

Description automatically generated

Answer is : Omar > object is reference type

A black rectangular sign with white text

Description automatically generated

Answer is : 1- 21 (2 numbers and one string ((1+1)+”1”)

2-111(JavaScript convert after plus operator to string also)

3-111(JavaScript converts the number 1 to a string and concatenates them)

4- 0 (the - operator is used for subtraction so JavaScript converted “1”to number)

5- NAN (JavaScript attempts to convert the strings to numbers)

6- 1ss (JavaScript performs string concatenation when found + between two strings)

7-10 (JavaScript attempt to convert null to 0 in case of this subtract)

A black rectangular object with white text

Description automatically generated

Answer is : undefined for X because Var is hoisted in global scope but not assigned to any value yet

And console.log(y); will throw an error because we are using Y before its declaration also because Y is Let variable so we should init it first and assigned it

After that error the code will log 20 and 10

A black screen with white text

Description automatically generated

Answer is :

Aly because F1 function will use this in scope of the Obj

Undefined > arrow function will use this from global scope so will search for the name in global and didn’t find anything