Q1. Name some Javascript features.

Ans. Some Javascript features include:

1. Light Weight Scripting Language
   - A scripting language is designed for automating specific tasks within a larger software environment.
   - Unlike traditional programming languages that produce standalone applications, scripting languages are usually embedded into applications and execute commands in response to events or user actions.

2. Interpreter
   - Javascript uses an interpreter to execute code, meaning it converts and runs the code line-by-line in real-time, as opposed to compiling it into machine code beforehand.

3. Dynamic Typing
   - This means that programmers don't need to specify the type of variable before assigning a data type to it.
   - Javascript is incredibly versatile and can evolve with the situation since variables can change their types at runtime.

4. Event handling
   - Javascript allows for the detection and handling of user interactions or system events, such as clicks, form submissions, or key presses.
   - This capability is fundamental for creating dynamic and engaging user experiences.

Q2. How to define anonymous function?

Ans. :

- An anonymous function is simply a function that does not have a name.
- Unlike named functions, which are declared with a name for easy reference, anonymous functions are usually created for specific tasks and are often assigned to variables or used as arguments for other functions.
- In Javascript you normally use the function keyword followed by a name to declare a function.
- However, in an anonymous function, the name is omitted.

→ Syntax:

```
function() {
    // function body
}
```

→ eg:

- Passing an anonymous function as a callback function to the setTimeout() method.
- This executes the anonymous function 2000 ms later.

```
setTimeout(function() {
    console.log("Welcome to Pune!");
}, 2000);

//Output:
Welcome to Pune!
```

Q3. What is 'closure' in Javascript?

Ans. • Closures are functions that have access to the variables that are present in their scope chain even if the outer function ceases to exist.

• To understand this in more detail, lets understand what a scope chain is.

• Scope chain refers to the fact that parent scope does not have access to the variables inside its childrens scope, but the childrens scope does not have access to the variables inside its childerens scope, but the childrens scope does have access to the variables present in its parent scopes.

eg:
```
let buttonProps = (borderRadius) => {
    const createVariantButtonProps = (variant, color) => {
        const newProps = {
            borderRadius,
            variant,
            color
        };
        return newProps;
    }
    return createVariantButtonProps;
}
```

• As you can see, we have a function called ButtonProps.

• This function accepts borderRadius as an argument.

• Let's consider the buttonProps function as our parent function.

• We have another function that has been defined inside the parent function, that is createVariant-ButtonProps.

Q1. What are Javascript data types?

Ans. Javascript as a language provides the following eight basic data types.

1. Javascript Number
   - Number in Javascript represents integer numbers or a floating-point number.
   - A number type could also be +Infinity, -Infinity, and NaN (not a number).

2. Javascript Strings
   - The string type is used to represent textual data.

3. Javascript Boolean
   - The logical ~~textual~~ boolean data type is used to represent data.
   - Boolean values represent truth values: true or false.

4. Javascript Null
   - Null in Javascript represents an unknown or empty value.

5. Javascript undefined
   - The undefined data type represents a variable that has not been assigned a value.

6. Javascript BigInt
   - BigInt can represent integers with arbitrary precision, allowing you to store and operate on large numbers beyond the integer limit.

Q5. What are all the types of pop up boxes available on Javascript?

Ans. In Javascript, there are 3 types of popup boxes: alert, confirm and prompt.

- The alert() displays a simple message, the confirm() asks the user to accept or cancel, and the prompt() requests user input with an optional default value.

1. Alert Box

- An alert box on Javascript is a popup window that displays a simple message to the user.
- It is triggered by the alert() function and pauses code execution until the user clicks the 'Ok' button to close it.

→ Syntax:

```
alert("Your alert here");
```

2. Prompt box

- A prompt box in Javascript is a popup window that asks the user for input.
- It is triggered by the prompt() function, which displays a message and input field, allowing the user to provide a response or cancel.

→ Syntax:

```
prompt("Your prompt here")
```

3. Confirm box

- It is a type of pop-up box that is used to get authorization or permission from the user.

→ Syntax:

```
confirm("your query here")
```