Misconceptions

Module-3	
Misconception 1.	**The scope and mutability of variable declaration techniques inJavaScript, namely var, let, and const, exhibit same behaviour.**
Correct Explanation	Although all three options are used for declaring variables, each of them exhibits unique behaviours. The variable "var" is scoped to the function andmay be redeclared inside its scope. The keyword "let" in JavaScript is block-scoped, meaning it is only accessible inside the block of code it is defined in. It may be reassigned to a new value, but it cannot be redeclared within the same scope. The 'const' keyword in JavaScript is block-scoped, meaning that it is only accessible inside the block of code where it is defined. Additionally, once a value is set to a 'const' variable, it cannot be changed to a different value.
Misconception 2.	**Loops and conditionals have a same function since they both depend oncircumstances.**

Correct Explanation	Although both loops and conditionals use circumstances to determine theirexecution, they fulfil distinct objectives. In programming, loops are used to iteratively run a designated chunk of code while a certain condition stays true.Conversely, conditionals are employed to execute a block of code only when a specified condition is satisfied.
Misconception 3.	**The enforcement of data types in JavaScript is stringent, resemblingstatically-typed programming languages such as Java or C++.**
Correct Explanation	JavaScript is characterised by dynamic typing, which allows variables to storevalues of any type without requiring an explicit declaration beforehand. However, it is important to comprehend the inherent characteristics and behaviours of various data types in order to facilitate reliable and efficientprogramming.
Misconception 4.	**Arrow functions are a concise alternative to standard functions, exhibiting the same behaviour across all situations.**
Correct Explanation	Although arrow functions provide a more succinct syntax, their main distinction from conventional functions is in the behaviour of this keyword.Arrow

	functions lack their own distinct this context and instead inherit it lexically from the encompassing scope.
Misconception 5.	**Variables declared using const are immutable and cannot have their properties or elements changed.**
Correct Explanation	Although a constant variable cannot be reassigned to a new value, it is important to note that if it contains an object or array, the attributes or components inside that object or array may still be updated. The const keyword enforces immutability on the binding of a variable, rather than the value it references.