ANSWER 8-

The try and catch blocks are used in JavaScript for error handling and exception handling. They allow you to handle and manage errors that may occur during the execution of your code. Here's an explanation of their purpose and why we need them:

Purpose of try block: The try block is used to enclose a block of code where an error might occur. It is followed by one or more catch blocks. The purpose of the try block is to execute the code normally and monitor for any exceptions or errors that may be thrown.

Purpose of catch block: The catch block is used to handle and respond to any exceptions or errors that occur within the corresponding try block. If an error occurs in the try block, the program flow is immediately transferred to the appropriate catch block. The catch block receives the error object as a parameter, allowing you to access information about the error and perform specific actions to handle it.

The purpose of using try and catch blocks is to prevent the program from crashing or abruptly terminating when an error occurs. Instead of allowing an error to propagate and halt the execution, you can gracefully handle the error and take appropriate actions, such as displaying an error message, logging the error, or providing alternative behavior.

By using try and catch blocks, you can:

Identify and catch specific types of errors: You can use different catch blocks to handle different types of errors. This allows you to handle specific exceptions differently and apply appropriate error handling strategies based on the type of error encountered.

Prevent the program from crashing: Errors within the try block are caught by the corresponding catch block, preventing the error from propagating and crashing the program. This ensures that your

application can gracefully recover from errors and continue executing.

Provide meaningful error messages or alternative behavior: Inside the catch block, you can customize error handling logic. You can log error details, display user-friendly error messages, or implement fallback behaviors to handle exceptional situations and maintain a smooth user experience.

In summary, try and catch blocks are essential for error handling in JavaScript. They allow you to detect, handle, and recover from errors, preventing your program from crashing and providing you with control over how errors are managed within your code.