# Introduction to Java Script
# Other concepts

By

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# Errors & Exceptions Handling

- There are three types of errors in programming:

(a) Syntax Errors

(b) Runtime Errors and

(c) Logical Errors

**Solution ?**

- Runtime errors, also called **exceptions,** occur during execution (after compilation/interpretation).

- Exceptions also affect the thread in which they occur, allowing other JavaScript threads to continue normal execution.

# The try...catch...finally Statement

- JavaScript implements the ***try...catch...finally*** construct as well as the throw operator to handle exceptions.

- <script type = "text/javascript">
- <!--
-   try {
-       // Code to run
-       [break;]
-   }
-   catch ( e ) {
-       // Code to run if an exception occurs
-       [break;]
-   }
-   [ finally {
-       // Code that is always executed regardless of
-       // an exception occurring
-   }]
-   //-->
- </script>

*The **try** block must be followed by either exactly one **catch** block or one **finally** block (or one of both).*

*18_exceptio.html*

# The onerror() Method

- The **onerror** event handler provides three pieces of information to identify the exact nature of the error −
    - o **Error message** − The same message that the browser would display for the given error
    - o **URL** − The file in which the error occurred
    - o **Line number**− The line number in the given URL that caused the error

*19_Exeption2.html*

# Form Validation

- **Need ?**
- **Solution ?**
- **Basic Validation** − First of all, the form must be checked to make sure all the mandatory fields are filled in. It would require just a loop through each field in the form and check for data.

- **Data Format Validation** − Secondly, the data that is entered must be checked for correct form and value. Your code must include appropriate logic to test correctness of data.

- *WAP program to perform basic validation and data format validation.*

# Animation

- Need ?

- JavaScript provides the following two functions to be frequently used in animation programs.
  - o **setTimeout( function, duration)** − This function calls **function** after **duration** milliseconds from now.
  - o **setInterval(function, duration)** − This function calls **function** after every **duration** milliseconds.
  - o **clearTimeout(setTimeout_variable)** − This function calls clears any timer set by the setTimeout() functions.

# Animation

- Manual Animation
  - 20_Animation1.html
- Automated Animation
  - 21_Animation2.html
- Rollover with a Mouse Event
  - 22_Animation3.html

# Debugging

- Need?
- Browser specific
- Students should reply through chat box

# Thank You