Enterprise javascript error handeling:

Nicholas C.zakes, principal front end engineer, yahoo the author of professional java script for web developers and professional ajax 2nd edition books.

The users see nothing when there is a java script error on a webpage. If an error is possible, someone will make it the designer must assume that all possible errors will occur and design as to minimize the chance of the error in the forst place, or its effects once it gets made. Errors should be easy to detect, they should have minimal consequences, and , if possible, their effects should be reversible.

RULE-1

* Assume your code will fail
* Log errors to the server
* You, not the browser, handle errors

TRY-CATCH

try {

«try\_statements»

} catch (error) {

«catch\_statements»

} finally {

«finally\_statements»

}

=>thrown errors contain extra information

=>errors which gets caught are considered to have been handeled.

Window.onerror:

Window.onerror=function(msg,url,line){

Log(1,msg);

Return true;

};

=>last stops before browser responds

=> return true to indicate not to respond

=>only supported in internet explorer and firefox

ERROR LIFECYCLE:

Error=>try-catch=>window.onerror=>browser error

* Identify where errors might occur

Types of errors

#Type coercion errors

For eg:

//Boolean conversion

If (null) {/\*never executed \*/}

If(0){/\*never executed\*/}

If(“”){/\*never executed\*/}

If(“hi”) {/\*executed\*/)

If(-1) {/\*executed\*/)

If({}) {/\*executed\*/)

// Equivalence conversion

alert(5==”5”); //true

alert(5===”5”); //false

alert(1==true); //true

alert(1===true); //false

# Data type errors

* Often occurs with function arguments
* Typically a symptom of insufficient value checking.

Datatype erors are,

Function conat(str1,str2){

return str1+str2;

}

Function add(num1,num2){

return num1+ num2;

}

/\*function sortArray(values){

If(values != null){

Values.sort(function(a,b){

Return b-a;

});

}

}

Data type errors fixed:

/\*function sortArray(values){

If(typeof values.sort ==”function”){

values.sort(function(a,b){

Return b-a;

});

}

}

Data type errors fixed

/\*function sortArray(values){

If(values instanceof Array){

Values.sort(function(a,b){

Return b-a;

});

}

}

COMMUNICATION ERRORS:

* Invalid URL/post data
* S erver response status
* No network connection
* Server response content

Invalid URL/post data:

# Typically long string concatenations

# Don’t forget to use

encodeURIComponent() on each part

* Not encodeURI()

# make sure parameters are named correctly

Server Response Status:

# 200 is not the only valid status that may be returned

-beware of 304

# Any other status means you didn’t get data

Status response content:

#a status of 200/304 is not enough

# server errors often return html

# if possible,set status to 500

* Distinguish fatal versus non-fatal errors

Non-fatal errors

* Won’t interefere with user’s main tasks
* Affects only a portion of the page

-easily disabled/ignored

=>recovery is possible.