Debugger in JS





What is debugger?

 A statement in JavaScript that triggers a breakpoint in your code, allowing you to pause execution and inspect variables, track function calls, and navigate through code step-by-step.

```
function calculateTotal(price, quantity) {
  const total = price * quantity;
  debugger; // Pause execution here
  return total;
}
const totalPrice = calculateTotal(25, 3);
```



6 Things to Know

Setting Breakpoints

Inspecting Variables

Stepping Through Code

Conditional Breakpoints

Logging and Beyond

Cross-Browser Compatibility

Setting Breakpoints

 Place debugger statements strategically at points in your code where you suspect issues or want to inspect variables' values.



Inspecting Variables

 Once paused at a debugger breakpoint, utilize your browser's developer tools to inspect the current state of variables, parameters, and the call stack.

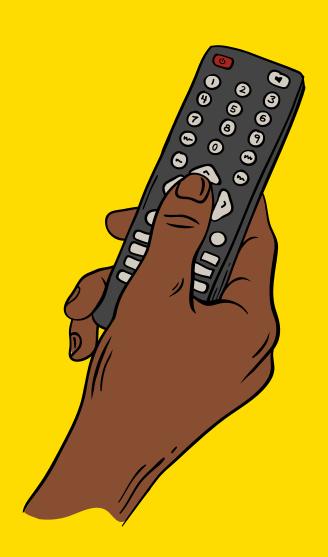
```
callWithDebugContext
             if((data.nominationCriteria == 'INCLUDE_IDS' && this.nominationFieldType ==
                                                                                                                                                   core.es5.is:13013
1294
             || (data.nominationCriteria == 'WHO_CAN_IDS' && this.nominationFieldType ==
1295
                                                                                                    debugHandleEvent
                                                                                                                                                   core.es5.is:12601
1296
                this.addRule('List of Employees');
                                                                                                    dispatchEvent
                                                                                                                                                   core.es5.is:8780
1297
                let personValue = Ddata.value.Dsplit(',')
               let personValueID = data.valueDbIds.split(',')
1298
                                                                                                    (anonymous)
                                                                                                                                                   core.es5.js:9370
                                                                                                    (anonymous)
1300
                  personValueID.forEach(element => {
                                                                                                                                        platform-browser.es5.js:2683
                    if(!this.selectedPersons.find(e => e.id == element)) {
1301
                                                                                                    Zone Delegate.invoke Task
                                                                                                                                                        zone.js:398
1302
                    this.selectedPersons.push({
1303
                       'id': element,
                                                                                                    onInvokeTask
                                                                                                                                                   core.es5.js:4116
              //
//
1304
                                                                                                                                                        zone.js:397
                                                                                                    ZoneDelegate.invokeTask
1305
1306
                                                                                                   Zone.runTask
                                                                                                                                                        zone.js:165
                                                                                                    ZoneTask.invoke
                                                                                                                                                        zone.js:460
1308
              for(let i = 0; i<personValueID.length; i++){</pre>
1309
                if(!this.selectedPersons.find(e => e.id == personValueID[i])) {
                                                                                                 ▼ Scope
1310
                      this.selectedPersons.push({
1311
                         value': JSON.parse(personValue[i]),
                         'valueDbIds' : [i]
1312
                                                                                                   ▶ data: {id: 328, description: "Ids", nominationCriteria: "...
1313
                     })
                                                                                                     departmentValue: undefined
1314
                                                                                                     departmentIds: undefined
1315
                                                                                                     cityValue: undefined
1316
                                                                                                     designationValue: undefined
1318
             if((data.nominationCriteria == 'INCLUDE_MANAGER' && this.nominationFieldTyp
                                                                                                     designationIds: undefined
             || (data.nominationCriteria == 'WHO_CAN_MANAGER' && this.nominationFieldTyp
1319
                                                                                                     areaValue: undefined
1320
               this.addRule('People Manager');
                                                                                                     areaIds: undefined
1321
                                                                                                     territoryValue: undefined
                                                                                                     territoryIds: undefined
{} Line 1297, Column 16
                                                      (source mapped from smart-filter.component.ts)
                                                                                                     regionValue: undefined
```



Stepping Through Code

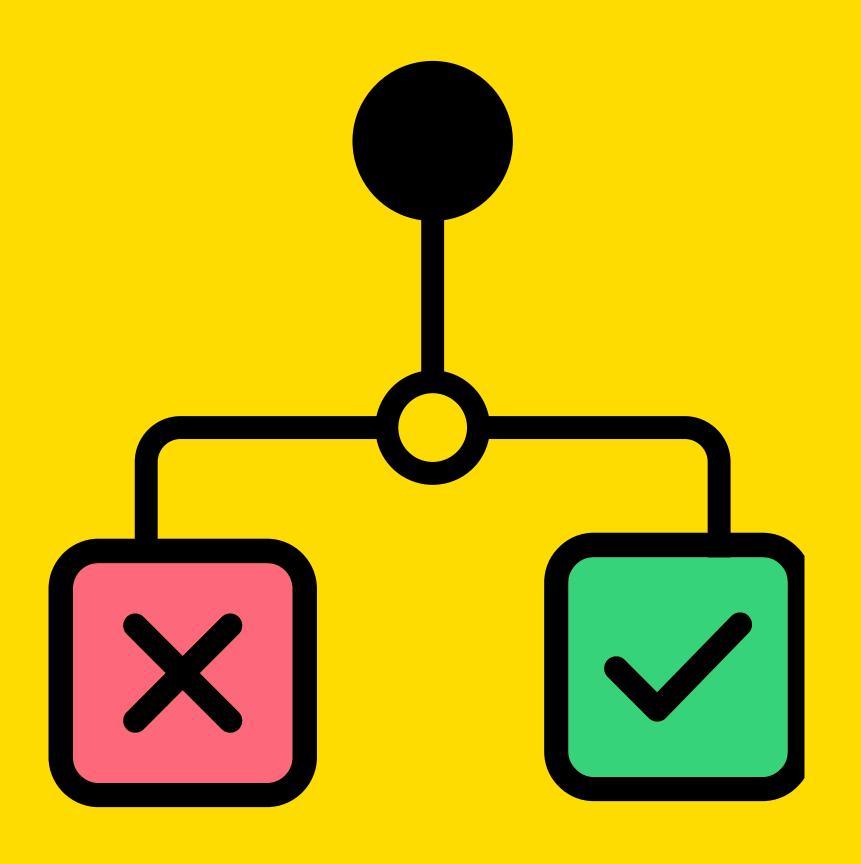
 Use step-by-step execution controls (such as Step Into, Step Over, and Step Out) provided by your debugger to traverse through code and understand its behavior.





Conditional Breakpoints

 Enhance your debugging efficiency by setting conditional breakpoints, which trigger only when specified conditions are met.



Logging and Beyond

 While console.log() is invaluable, debugger offers real-time insights into code execution, allowing you to intervene and analyze complex scenarios effectively.



Cross-Browser Compatibility

 debugger is supported across major browsers and developer tools, ensuring consistent debugging experiences regardless of your development environment.



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