

```
1  "use strict";
2
3  const $ = selector => document.querySelector(selector);
4
5  const displayErrorMsgs = msgs => {
6    // create a new ul element
7    const ul = document.createElement("ul");
8    ul.classList.add("messages");
9
10   // create a new li element for each error message, add to ul
11   for (let msg of msgs) {
12     const li = document.createElement("li");
13     const text = document.createTextNode(msg);
14     li.appendChild(text);
15     ul.appendChild(li);
16   }
17
18   // if ul node isn't in document yet, add it
19   const node = $("ul");
20   if (node == null) {
21     // get the form element
22     const form = $("form");
23
24     // add ul to parent of form, before the form
25     form.parentNode.insertBefore(ul, form);
26   } else {
27     // replace existing ul node
28     node.parentNode.replaceChild(ul, node);
29   }
30 }
31
32 const processEntries = () => {
33   // get form controls to check for validity
34   const email = $("#email_address");
35   const phone = $("#phone");
36   const country = $("#country");
37   const terms = $("#terms");
38
39   // create array for error messages
40   const msgs = [];
41
42   // check user entries for validity
43   if (email.value == "") {
44     msgs[msgs.length] = "Please enter an email address.";
45   }
46   if (phone.value == "") {
47     msgs[msgs.length] = "Please enter a mobile phone number.";
48   }
49   if (country.value == "") {
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50     msgs[msgs.length] = "Please select a country.";
51 }
52 if (terms.checked == false) {
53     msgs[msgs.length] = "You must agree to the terms of service.";
54 }
55
56 // submit the form or notify user of errors
57 if (msgs.length == 0) { // no error messages
58     $("#form").submit();
59 } else {
60     displayErrorMsgs(msgs);
61 }
62 };
63
64 const resetForm = () => {
65     $("#form").reset();
66
67     // remove error messages
68     $("ul").remove();
69
70     $("#email_address").focus();
71 };
72
73 document.addEventListener("DOMContentLoaded", () => {
74     $("#register").addEventListener("click", processEntries);
75     $("#reset_form").addEventListener("click", resetForm);
76     $("#email_address").focus();
77 });
```